

Tekelec EAGLE[®] 5
Integrated Signaling System

Maintenance Manual

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TEKELEC

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Overview

The *Maintenance Manual* contains procedural information required for maintaining the Eagle 5 ISS system, and the Multi-Purpose Server (MPS) with the Netra servers or TekServer platforms. For replacement and removal of EOAP cards refer to the *System Manual - EOAP*. The *Maintenance Manual* provides preventive and corrective maintenance procedures used in maintaining the different systems. Corrective procedures are listed by message reference number (MRN). The *Maintenance Manual* is being reissued to accurately reflect changes for the new features and procedures since the last release.



WARNING: Be sure to wear a wrist strap connected to the wrist strap grounding point of the EAGLE 5 Integrated Signaling System (ISS) before performing any maintenance procedures on the EAGLE 5 ISS.

The chapters are organized in such a way that information can be easily located. The manual is organized as follows:

- Chapter 1, *Introduction* provides general information about the organization of this manual, a description of the EAGLE 5 ISS maintenance strategy, and a list of acronyms and abbreviations.
- Chapter 2, *Preventive Maintenance* provides recommended scheduled routines for the EAGLE 5 ISS.
- Chapter 3, *Corrective Maintenance* provides procedures to use in response to all system alarms, indicators, and output messages displayed by the EAGLE 5 ISS.
- Chapter 4, *Measurements* describes traffic measurements used in the EAGLE 5 ISS.

In addition, these appendices of this manual provide useful reference material for maintenance, diagnostic, and troubleshooting activities.

- Appendix A, *Card Removal/Replacement Procedures*
- Appendix B, *X.25/SS7 Message Conversion*
- Appendix C, *Holdover Clock Troubleshooting Procedures*
- Appendix D, *UAM Balancing Matrix*
- Appendix E, *Unsolicited Output Message Groups*
- Appendix F, *Auto-Inhibit HW Verification Codes*
- Appendix G, *Part Numbers*

NOTE: EAGLE 5 ISS supporting ANSI networks make use of the LNP and SEAS features. EAGLE 5 ISS supporting ITU networks do not include these systems.

Scope and Audience

This manual is intended for maintenance personnel who must maintain the EAGLE 5 ISS. The technician should be familiar with SS7 protocols. The manual provides preventive and corrective procedures that will aid maintenance personnel in maintaining the EAGLE 5 ISS.

Preventive maintenance procedures are routines to be carried out on a scheduled basis to help prevent system failures. These routines are industry-standard recommendations and may be adopted to fit any company maintenance plan.

The corrective maintenance procedures are those used in response to a system alarm or output message. These procedures are EAGLE 5 ISS-specific and aid in the detection, isolation, and repair of faults.

Regulatory Compliance and Certification

Tekelec products are tested to meet the following regulatory standards:

- Network Equipment Building System (NEBS) level 3 as listed in Telcordia SR-3580.
- Applicable Telcordia Electromagnetic Compatibility and Electrical Safety requirements in GR-1089-CORE.
- Applicable Physical Protection requirements in GR-63-CORE.
- Relevant directives and harmonized standards in support of the products Compliance European (CE) mark required in Europe. Figure 1-1 shows the mark used to indicate this compliance.

Figure 1-1. European Directives CE Mark



- Relevant standards in ElectroMagnetic Compatibility (EMC) directive 89/336/EEC.
- Relevant standards in Safety directive 73/23/EEC, supported by Certified Body (CB) Test Certificates US/5923/UL or US/5451/UL issued by the National Certification Body as tested to IEC 60950 with national differences for European countries
- Underwriters Laboratories (UL) listed under UL File E200146 for USA and c-UL for Canada. Figure 1-2 shows the mark used to indicate this compliance.

Figure 1-2. Combined UL Mark for the United States and Canada



- Relevant standards in SJ/T 11363-2006 for limits of certain hazardous substances.

Figure 1-3. Hazardous Substances

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	○	○	○	○	○	○
电路模块 (Circuit Modules)	×	○	○	○	○	○
电缆及电缆组件 (Cables & Cable Assemblies)	×	○	○	○	○	○
塑料和聚合物部件 (Plastic and Polymeric parts)	○	○	○	○	○	○

- : 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/Txxxx-xxxx标准规定的限量要求以下。
Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T 11363-2006 standard.
- ×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/Txxxx-xxxx标准规定的限量要求。
Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T 11363-2006 standard.

Related Publications

The *Maintenance Manual* is part of the EAGLE 5 ISS documentation set and may refer to one or more of the following manuals:

- The *Commands Manual* contains procedures for logging into or out of the EAGLE 5 ISS, a general description of the terminals, printers, the disk drive used on the system, and a description of all the commands used in the system.
- The *Commands Pocket Guide* is an abridged version of the *Commands Manual*. It contains all commands and parameters, and it shows the command-parameter syntax.
- The *Commands Quick Reference Guide* contains an alphabetical listing of the commands and parameters. The guide is sized to fit a shirt-pocket.
- The *Commands Error Recovery Manual* contains the procedures to resolve error message conditions generated by the commands in the *Commands Manual*. These error messages are presented in numerical order.
- The *Database Administration Manual – Features* contains procedural information required to configure the EAGLE 5 ISS to implement these features:
 - X.25 Gateway
 - STP LAN
 - Database Transport Access
 - GSM MAP Screening
 - EAGLE 5 Integrated Monitoring Support
- The *Database Administration Manual - Gateway Screening* contains a description of the Gateway Screening (GWS) feature and the procedures necessary to configure the EAGLE 5 ISS to implement this feature.
- The *Database Administration Manual – Global Title Translation* contains procedural information required to configure an EAGLE 5 ISS to implement these features:
 - Global Title Translation
 - Enhanced Global Title Translation
 - Variable Length Global Title Translation
 - Interim Global Title Modification
 - Intermediate GTT Load Sharing
 - ANSI-ITU-China SCCP Conversion

- Flexible GTT Load Sharing
- Origin-Based SCCP Routing.
- The *Database Administration Manual - IP7 Secure Gateway* contains procedural information required to configure the EAGLE 5 ISS to implement the SS7-IP Gateway.
- The *Database Administration Manual – SEAS* contains the EAGLE 5 ISS configuration procedures that can be performed from the Signaling Engineering and Administration Center (SEAC) or a Signaling Network Control Center (SNCC). Each procedure includes a brief description of the procedure, a flowchart showing the steps required, a list of any EAGLE 5 ISS commands that may be required for the procedure but that are not supported by SEAS, and a reference to optional procedure-related information, which can be found in one of these manuals:
 - *Database Administration Manual – Gateway Screening*
 - *Database Administration Manual – Global Title Translation*
 - *Database Administration Manual – SS7.*
- The *Database Administration Manual – SS7* contains procedural information required to configure an EAGLE 5 ISS to implement the SS7 protocol.
- The *Database Administration Manual – System Management* contains procedural information required to manage the EAGLE 5 ISS database and GPLs, and to configure basic system requirements such as user names and passwords, system-wide security requirements, and terminal configurations.
- The *Dimensioning Guide for EPAP Advanced DB Features* is used to provide EPAP planning and dimensioning information. This manual is used by Tekelec personnel and EAGLE 5 ISS customers to aid in the sale, planning, implementation, deployment, and upgrade of EAGLE 5 ISS systems equipped with one of the EAGLE 5 ISS EPAP Advanced Database (EADB) Features.
- The *ELAP Administration Manual* defines the user interface to the EAGLE 5 ISS LNP Application Processor on the MPS/ELAP platform. The manual defines the methods for accessing the user interface, menus, screens available to the user and describes their impact. It provides the syntax and semantics of user input and defines the output the user receives, including information and error messages, alarms, and status.
- The *EPAP Administration Manual* describes how to administer the EAGLE 5 ISS Provisioning Application Processor on the MPS/EPAP platform. The manual defines the methods for accessing the user interface, menus, and screens available to the user and describes their impact. It provides the syntax and semantics of user input and defines the output the user receives, including messages, alarms, and status.

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- The *Feature Manual - EIR* provides instructions and information on how to install, use, and maintain the EIR feature on the Multi-Purpose Server (MPS) platform of the EAGLE 5 ISS. The feature provides network operators with the capability to prevent stolen or disallowed GSM mobile handsets from accessing the network.
- The *Feature Manual - G-Flex C7 Relay* provides an overview of a feature supporting the efficient management of Home Location Registers in various networks. This manual gives the instructions and information on how to install, use, and maintain the G-Flex feature on the Multi-Purpose Server (MPS) platform of the EAGLE 5 ISS.
- The *Feature Manual - A-Port* provides an overview of a feature providing the capability for IS41 mobile subscribers to change service provider while retaining their original Mobile Directory Number (MDN). This manual gives the instructions and information on how to install, use, and maintain the A-Port feature on the Multi-Purpose Server (MPS) platform of the EAGLE 5 ISS.
- The *Feature Manual - G-Port* provides an overview of a feature providing the capability for mobile subscribers to change the GSM subscription network within a portability cluster while retaining their original MSISDNs. This manual gives the instructions and information on how to install, use, and maintain the G-Port feature on the Multi-Purpose Server (MPS) platform of the EAGLE 5 ISS.
- The *Feature Manual - INP* provides the user with information and instructions on how to implement, utilize, and maintain the INAP-based Number Portability (INP) feature on the Multi-Purpose Server (MPS) platform of the EAGLE 5 ISS.
- The *Feature Manual - Migration* provides an overview of a feature providing the capability for IS41 subscribers to migrate to a GSM network and GSM mobile subscribers to migrate to an IS41 network. This manual gives the instructions and information on how to install, use, and maintain the Migration feature on the Multi-Purpose Server (MPS) platform of the EAGLE 5 ISS.
- The *FTP-Based Table Retrieve Application (FTRA) User Guide* describes how to set up and use a PC to serve as the offline application for the EAGLE 5 ISS FTP Retrieve and Replace feature.
- The *Hardware Manual - EAGLE 5 ISS* contains hardware descriptions and specifications of Tekelec's signaling products. These include the EAGLE 5 ISS, OEM-based products such as the ASi 4000 Service Control Point (SCP), the Netra-based Multi-Purpose Server (MPS), and the Integrated Sentinel with Extended Services Platform (ESP) subassembly.

The *Hardware Manual* provides an overview of each system and its subsystems, details of standard and optional hardware components in each system, and basic site engineering. Refer to this manual to obtain a

basic understanding of each type of system and its related hardware, to locate detailed information about hardware components used in a particular release, and to help configure a site for use with the system hardware.

- The *Hardware Manual - Tekelec 1000 Application Server* provides general specifications and a description of the Tekelec 1000 Applications Server (T1000 AS). This manual also includes site preparation, environmental and other requirements, procedures to physically install the T1000 AS, and troubleshooting and repair of Field Replaceable Units (FRUs).
- The *Hardware Manual - Tekelec 1100 Application Server* provides general specifications and a description of the Tekelec 1100 Applications Server (T1100 AS). This manual also includes site preparation, environmental and other requirements, procedures to physically install the T1100 AS, and troubleshooting and repair of Field Replaceable Units (FRUs).
- The *Installation Manual - EAGLE 5 ISS* contains cabling requirements, schematics, and procedures for installing the EAGLE 5 ISS along with LEDs, connectors, cables, and power cords to peripherals. Refer to this manual to install components or the complete systems.
- The *Installation Manual - Integrated Applications* provides the installation information for integrated applications such as EPAP 4.0 or earlier (Netra-based Multi-Purpose Server (MPS) platform) and Sentinel. The manual includes information about frame floors and shelves, LEDs, connectors, cables, and power cords to peripherals. Refer to this manual to install components or the complete systems.
- The *LNP Database Synchronization Manual - LSMS with EAGLE 5 ISS* describes how to keep the LNP databases at the LSMS and at the network element (the EAGLE 5 ISS is a network element) synchronized through the use of resynchronization, audits and reconciles, and bulk loads. This manual is contained in both the LSMS documentation set and in the EAGLE 5 ISS documentation set.
- The *LNP Feature Activation Guide* contains procedural information required to configure the EAGLE 5 ISS for the LNP feature and to implement these parts of the LNP feature on the EAGLE 5 ISS:
 - LNP services
 - LNP options
 - LNP subsystem application
 - Automatic call gapping
 - Triggerless LNP feature

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- Increasing the LRN and NPANXX Quantities on the EAGLE 5 ISS
- Activating and Deactivating the LNP Short Message Service (SMS) feature.
- The *Maintenance Manual* contains procedural information required for maintaining the EAGLE 5 ISS and the card removal and replacement procedures. The *Maintenance Manual* provides preventive and corrective maintenance procedures used in maintaining the different systems.
- The *Maintenance Pocket Guide* is an abridged version of the *Maintenance Manual* and contains all the corrective maintenance procedures used in maintaining the EAGLE 5 ISS.
- The *Maintenance Emergency Recovery Pocket Guide* is an abridged version of the *Maintenance Manual* and contains the corrective maintenance procedures for critical and major alarms generated on the EAGLE 5 ISS.
- The *MPS Platform Software and Maintenance Manual - EAGLE 5 ISS with Tekelec 1000 Application Server* describes the platform software for the Multi-Purpose Server (MPS) based on the Tekelec 1000 Application Server (T1000 AS) and describes how to perform preventive and corrective maintenance for the T1000 AS-based MPS. This manual should be used with the EPAP-based applications (EIR, G-Port, G-Flex, A-Port, Migration, and INP).
- The *MPS Platform Software and Maintenance Manual - EAGLE 5 ISS with Tekelec 1100 Application Server* describes the platform software for the Multi-Purpose Server (MPS) based on the Tekelec 1100 Application Server (T1100 AS) and describes how to perform preventive and corrective maintenance for the T1100 AS-based MPS. This manual should be used with the ELAP-based application (LNP).
- The *Provisioning Database Interface Manual* defines the programming interface that populates the Provisioning Database (PDB) for the EAGLE 5 ISS features supported on the MPS/EPAP platform. The manual defines the provisioning messages, usage rules, and informational and error messages of the interface. The customer uses the PDBI interface information to write his own client application to communicate with the MPS/EPAP platform.
- The *Previously Released Features Manual* summarizes the features of previous EAGLE, EAGLE 5 ISS, and IP7 Secure Gateway releases, and it identifies the release number of their introduction.
- The *Release Documentation* contains the following documents for a specific release of the system:

- *Feature Notice* - Describes the features contained in the specified release. The Feature Notice also provides the hardware baseline for the specified release, describes the customer documentation set, provides information about customer training, and explains how to access the Customer Support website.
- *Release Notice* - Describes the changes made to the system during the lifecycle of a release. The Release Notice includes Generic Program Loads (GPLs), a list of PRs resolved in a build, and all known PRs.

NOTE: The *Release Notice* is maintained solely on Tekelec's Customer Support site to provide you with instant access to the most up-to-date release information.

- *System Overview* - Provides high-level information on SS7, the IP7 Secure Gateway, system architecture, LNP, and EOAP.
 - *Master Glossary* - Contains an alphabetical listing of terms, acronyms, and abbreviations relevant to the system.
 - *Master Index* - Lists all index entries used throughout the documentation set.
- The *System Manual – EOAP* describes the Embedded Operations Support System Application Processor (EOAP) and provides the user with procedures on how to implement the EOAP, replace EOAP-related hardware, device testing, and basic troubleshooting information.

Documentation Packaging, Delivery, and Updates

Customer documentation is provided with each system in accordance with the contract agreements. Customer documentation is upgraded whenever significant changes that affect system operation or configuration are made. Customer documentation updates may be issued in the form of an addendum or as a reissue of the affected documentation.

The document part number is shown on the title page along with the current revision of the document, the date of publication, and the software release that the document covers. The bottom of each page contains the document part number and the date of the publication.

Two types of releases are major software releases and maintenance releases. Maintenance releases are issued as addenda with a title page and change bars. On the changed pages, the date and document part number are changed. On any unchanged pages that accompany the changed pages, the date and the document part number are changed.




In the event a software release has minimum effect on documentation, an addendum is provided. The addendum provides an instruction page, a new title page, a change history page, and replacement chapters bearing the date of publication, the document part number, and change bars.

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If a new release has a major impact on documentation, such as a new feature, the entire documentation set is reissued with a new part number and a new release number.

Documentation Admonishments

Admonishments are icons and text that may appear in this and other EAGLE 5 ISS or LSMS manuals that alert the reader to assure personal safety, to minimize possible service interruptions, and to warn of the potential for equipment damage. Following are the admonishments, listed in descending order of priority.

	DANGER: (This icon and text indicate the possibility of <i>personal injury</i> .)
	WARNING: (This icon and text indicate the possibility of <i>equipment damage</i> .)
	CAUTION: (This icon and text indicate the possibility of <i>service interruption</i> .)

Conventions

This manual uses the following conventions:

- **This type style indicates input by the user or a section of output that demonstrates a point to the user.**
- This typeface indicates system output. A section of output that demonstrates a point to the user is indicated in bold.
- **This type style indicates command parameter input by the user.**
- *This type style indicates naming such as manual name or filename.*

Customer Care Center

The Tekelec Customer Care Center offers a point of contact through which customers can receive support for problems. The Tekelec Customer Care Center is staffed with highly-trained engineers to provide solutions to technical questions and issues seven days a week, twenty-four hours a day. A variety of service programs are available through the Tekelec Customer Care Center to maximize the performance of Tekelec products that meet and exceed customer needs.

To receive technical assistance, call the Customer Care Center at one of the following locations.

- Tekelec, USA

Phone (US and Canada) +1 888-FOR-TKLC (1-888-367-8552)

Phone (international) +1 919-460-2150

Fax +1-919-460-0877

Email: support@tekelec.com

- Tekelec, UK

Phone: +44 1784 467 804

Fax: +44 1784 477 120

Email: ecsc@tekelec.com

When your call is received, Customer Care Center issues a Customer Service Report (CSR). Each CSR includes an individual tracking number. When a CSR is issued, Customer Care Center determines the classification of the trouble. The CSR contains the serial number of the system, problem symptoms, and messages. Technical Services assigns the CSR to a primary engineer, who will work to solve the problem. Customer Care Center closes the CSR when the problem is resolved.

Problems are reported using problem criteria, as defined in the following sections and "TL-9000 Quality System Metrics."

Problem – Critical

Critical problems severely affect service, capacity/traffic, billing, and maintenance capabilities and requires immediate corrective action, regardless of time of day or day of the week, as viewed by a customer upon discussion with the supplier. For example:

- A loss of service that is comparable to the total loss of effective functional capacity of an entire switching or transport system.
- A reduction in capacity or traffic handling capacity such that expected loads cannot be handled.

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- Loss of ability to provide safety or emergency capability (for example, 911 calls).

Problem – Major

Major problems cause conditions that seriously affect system operations, or maintenance and administration, and require immediate attention as viewed by the customer upon discussion with the supplier. Because of a lesser immediate or impending effect on system performance, the urgency is less than in a critical situation. A list of possible examples follows:

- Reduction in any capacity/traffic measurement function
- Any loss of functional visibility and/or diagnostic capability
- Short outage equivalent to system or subsystem outages with accumulated duration of greater than two minutes in any 24-hour period or that continue to repeat during longer periods
- Repeated degradation of DS1 or higher rate spans or connections
- Prevention of access for routine administrative activity
- Degradation of access for maintenance or recovery operations
- Degradation of the system's ability to provide any required critical or major trouble notification
- Any significant increase in product-related customer trouble reports
- Billing error rates that exceed specifications
- Corruption of system or billing databases

Problem – Minor

Other problems that a customer does not view as critical or major are considered minor. Minor problems do not significantly impair the functioning of the system and do not significantly affect service to customers. These problems are tolerable during system use.

Engineering complaints are classified as minor unless otherwise negotiated between the customer and supplier.

Response

If a critical problem exists, emergency procedures are initiated (see "Emergency Response"). If the problem is not critical, information regarding the serial number of the system, Common Language Location Identifier (CLLI), and initial problem symptoms and messages is recorded and a primary Technical Services engineer is assigned to work the Customer Service Request (CSR) and provide a solution to the problem. The CSR is closed when the problem has been resolved.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Tekelec Customer Care Center.

To receive technical assistance, call the Customer Care Center at one of the following locations:

- Tekelec, USA
 - Phone (US and Canada) +1 888-FOR-TKLC (1-888-367-8552)
 - Phone (international) +1 919-460-2150
 - Fax +1-919-460-0877
 - Email: **support@tekelec.com**
- Tekelec, UK
 - Phone: +44 1784 467 804
 - Fax: +44 1784 477 120
 - Email: **ecsc@tekelec.com**

Emergency response provides immediate coverage, automatic escalation, and other features to ensure a rapid resolution to the problem.

Hardware Repair and Return

Any system components being returned for repair or replacement must be processed through the Tekelec Return Material Authorization (RMA) procedures. A hardware repair is defined as an item returned to Tekelec due to a failure, with the returned item being repaired and returned to the customer. It is essential that serial numbers are recorded correctly. RMAs cannot be created without a valid serial number. All repair and quality information is tracked by serial number. Table 1-1 lists the basic RMA types. Table 1-2 lists the RMA return reasons.

Table 1-1. Basic RMA Types

Replacement Type	Description	Turnaround
Priority Advance Replacement	Customer requests the URGENT replacement of a damaged product	Same Day Shipment
Advance Replacement	Customer request the replacement of a damaged product	Shipment Within 3 Business Days
Repair / Return	Customer will return a damaged product for repair	Shipment Within 5 Days After Receipt
Expendable	A damaged part, such as a cable, is replaced, but the Customer does not return the damaged product	Depends on Urgency - Shipment Within 3 Business Days

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Table 1-2. RMA Reasons for Return

Reason for Return	Description
Damaged by Environment	Product damaged by environmental phenomena such as water damage or earthquake.
Damaged in Shipment	Damaged between shipment from Tekelec and receipt at the Customer's installation site.
DOA – Dead on Arrival	Product is not functional when it is first installed at the Customer's location.
Lab Return	Products returned from lab sites.
Product Capture	Defect to be captured by Quality or Engineering (not Product Recall).
Product Deficiency	Anything wrong with the part that doesn't fall into another category.
Product Recall	Products recalled by divisions for the repair of a defect or replacement of defective products.
Return – No Product Deficiency	Anything returned without the product being defective.

Procedure 1-1. Repair and Return Shipping Instructions

All returned equipment, assemblies, or subassemblies must be shipped to the Tekelec Repair and Return Facility specified by the Technical Services engineer. The item being returned must be shipped in the original carton or in an equivalent container assuring proper static handling procedures and with the freight charges prepaid.

The assigned RMA number must be clearly printed on the "RMA#:" line of the shipping label on the outside of the shipping package. If the RMA number is not placed on the label, the return could be delayed.

1. Obtain and confirm the following information before contacting the Tekelec Customer Contact Center:
 - Your name:
 - Company name:
 - Call-back number:
 - Email address:
 - Which product you are calling about?
 - Site location:
 - CLLI number
 - System serial number (NT, CE, LM, DS, etc...):
 - Complete software release (e.g., 28.0.1-41.53.0):

- Upgrade forms
WI005153
WI005154
WI005218
WI005219
WI005220
- Tekelec card type: (e.g., ILA, MPL, DSM, etc.):
- Tekelec card part number (870-####-##):
- Associated serial number (102#####):
- Reason for return or replacement (isolated from system):
- Full name of person the replacement card is being shipped to:
- Shipping address:

NOTE: If possible, include associated alarms (UAMs) and a copy of the associated output (capture file).

2. Contact the *Customer Care Center*, see page 1-12, and request a Return of Material Authorization (RMA).
-
3. If the item is a like-for-like advance replacement, the Technical Services engineer arranges for shipment of the replacement item to the customer.
 - a. Wait for the replacement component to arrive.
 - b. Package the defective component in the box of materials you received with your replacement. Use proper static handling procedures.
 - c. Label the outside and inside of the box with your RMA number clearly visible. Place the packing slip from the received replacements on the inside of your box.
 - d. Ship the defective component to the return address listed on the packing slip.
-
4. If the item is a repair/return, the Technical Services engineer arranges for shipment of the replacement item to the customer.
 - a. Package the defective component in a suitable package for shipping. Use proper static handling procedures.
 - b. Label the outside and inside of the box with your RMA number clearly visible. Include a packing slip with all the information from Step 1 along with the RMA number.

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- c. Ship the defective component to the following address:
TEKELEC
Attn: RMA Department
5200 Paramount Parkway
Morrisville, NC 27560
RMA#: <assigned by Tekelec>
 - d. Wait for the repaired component to arrive.
-

Maintenance Strategy

The EAGLE 5 ISS is equipped with an automated surveillance system, which allows many failures to be detected and repaired autonomously. When trouble is detected, and its cause determined, the system software attempts to isolate the trouble and recover itself through reinitialization. Because of the use of distributed processing throughout the system, the reinitialization can be localized with little or no impact on the rest of the system or network.

If the system software is unable to correct the problem, an output message is generated and maintenance personnel are provided with equipment location, nature of the trouble, and alarm severity.

There are three levels of recovery in the EAGLE 5 ISS:

- Application self recovery
- System maintenance software intervention
- Maintenance personnel intervention.

Application Self Recovery

This is the most desirable method of recovery, as it is nearly transparent to the network, and does not require any system resources. Examples of applications capable of self recovery:

- Link failure
- Link set failure
- Route failure
- Interprocessor message transport (IMT) bus failure.

Failure of a link relies on SS7 maintenance to correct the trouble. This usually entails placing the link out of service (OS), re-aligning the link, then placing the link back in service.

Route failures also rely on SS7 maintenance. Transfer restricted (TFR) and transfer prohibited (TFP) are commonly used to reroute messages around a node.

System Maintenance Software Intervention

The system maintenance software operates at two levels, maintenance and administration subsystem (MAS) and application subsystem (SS7, X.25, GLS, DTA, and STPLAN). All troubles detected at the application level are reported to the maintenance and administration subsystem (MAS), which is responsible for generating system alarms and output messages.

Refer to the *Release Documentation* for more detailed information on system software and maintenance.

Maintenance Personnel Intervention

Maintenance personnel intervention is required when hardware fails, or when software is unable to recover. There are few occurrences of maintenance that would require maintenance personnel intervention. Examples include:

- Blown fuses
- Loss of power

NOTE: Maintenance personnel intervention is required to restore the power. Once power is restored, the EAGLE 5 ISS recovers automatically.

- Card failure

System Maintenance Log

The purpose of the System Maintenance Log is to provide both maintenance personnel and Tekelec Technical Services personnel with a complete trouble history for a specific site. This history aids in spotting trouble trends, which, if left unrecorded, would be impossible to detect. Record all maintenance regardless of nature.

On the following page is an example of a system maintenance log. Use this page to generate copies for your site. Tekelec recommends this log be completed after every preventive and corrective maintenance procedure.

This is a troubleshooting aid, and should be filled out completely. Printouts or any other supportive material should be referenced whenever possible. The Tekelec Technical Services personnel may ask for some of this information at a later time, if a particular trend begins to develop.

The trouble code field in the log is for recording EAGLE 5 ISS trouble messages. All maintenance (regardless of nature) should be recorded on this log for reference when troubleshooting.

List of Acronyms and Abbreviations

This manual uses the following acronyms and abbreviations:

AAL – ATM Adaptation Layer

AAL5 – ATM Adaptation Layer Type 5

AAL5CP – ATM Adaptation Layer Type 5 Common Part

AATM – ATM Applique

ACG – Automatic Call Gapping

ACM – Application Communications Module

ACT – Activate

ADJ DPC – Adjacent Destination Point Code

AI – Address Indicator

AIN – Advanced Intelligent Network

ALM – Alarm

AMA – Automatic Message Accounting

ANSI – American National Standards Institute

AP – Application Processor

APC – Adjacent Point Code

APPL – Application

AS – Application Server; a logical entity serving a specific Routing Key

ASi – Application Specific Interface

ASM – Application Services Module

ASM-GLS – Application Services Module with the GLS application

ASM-SCCP – Application Services Module with the SCCP application

ASP – Application Server Process

AST – Associated State for Maintenance

ATH – Application Trouble Handler

ATI – Any Time Interrogation

ATM – Asynchronous Transfer Mode

BIP – Board Identification PROM

BITS – Building Integrated Timing System

Introduction

BLM – Bulk Load Module

BPDCM – The application software for flash memory management on the DCM card.

BPHCAP – The application software used by the application processor and the IMT processor of the LIMATM

BPS – Bits per Second or Bytes per Second

BSN – Backward Sequence Number

CCS7 – Common Channel Signaling System #7

CDE – Common Desktop Environment

CDL – Command Driven Loopback

CDPA – Called Party Address

CF – Control Frame

CGPA – Calling Party Address

CIC – Circuit Identification Code

CLASS – Custom Local Area Signaling Service

CLLI – Common Language Location Identifier

CLU – Network Cluster

CNAM – Caller ID with Name

CNCF – Calling Name Conversion Facility

CPU – Central Processing Unit

CRC – Cyclic Redundancy Check

CRP – Circular Route Prevention

CSU – Channel Service Unit

DB – Database

DCM – Data Communications Module

DDL – Dynamic Data Loading

DIMM – Dual Inline Memory Module

DIP – Dual Inline Position

DN – Directory Number

DPC – Destination Point Code

DPCA – ANSI Destination Point Code

DPCI – ITU International Destination Point Code
DPCN – ITU National Destination Point Code
DSM – Data Services Module
DSU – Data Service Unit
DS0 – Digital Signal Level - 0
DS1 – Digital Signal Level - 1
EBD&A – Enhanced Bulk Download and Audit
EBI – Extended Bus Interface
ECM – Error Correction Method
EF – Extension Frame
EIR – Equipment Identity Register
EMS – Element Management system
ENET – Ethernet
ELAP – Eagle LNP Application Processor
EMAP – Eagle Measurements Application Processor
EOAP – Embedded OAP
EPAP – Eagle Provisioning Application Processor
EPROM – Erasable PROM
ESD – Electrostatic Discharge
ESP – Extended Services Platform
FAK – Feature Access Key
FAP – Fuse and Alarm Panel
FE – Far End
FPC – Full Point Code
FRU – Field Replaceable Unit
FSN – Forward Sequence Number
FTA – File Transfer Area
FTP – File Transfer Protocol
G-FLEX – GSM Flexible Numbering
G-PORT – GSM Mobile Number Portability

Introduction

GBYTE – Gigabyte
GLS – Gateway Loading Services
GPL – Generic Program Load
GPSM II – General Purpose Service Module II (Hardware)
GSL – Generic Software Load
GSM – Global System for Mobile Communications
GTA – Global Title Address
GTI – Global Title Indicator
GTT – Global Title Translation
GTWY – Gateway Administration measurements report
GUI – Graphical User Interface
GWS – Gateway Screening
HC MIM – High Capacity Multi-Channel Interface Module
HIPR – High-Speed IMT Packet Router
HMUX – High-Speed Multiplexer
HRN – Home Routing Number
HSL – High-Speed Links
HSU – High-Speed Multiplexer Signaling Unit
ICMP – Internet Control Message Protocol
ID – Identity
ILA – Integrated LIM Applique
IMEI – International Mobile Equipment Identity
IMSI – International Mobile Subscriber Identity
IMT – Interprocessor Message Transport
IN – Intelligent Network
INAP – Intelligent Network Application Protocol
INP – INAP-based Number Portability
INET – Internet
IP – Internet Protocol
IP7 – Internet Protocol based SS7 Interface

IP7 SG – IP7 Secure Gateway

IPLIM – The application software used by the DCM card for TCP/IP point-to-point connectivity for ANSI point codes.

IPLIMx – Point to point IP Transport GPL, referring to IPLIM (ANSI) and IPLIMI (ITU)

IPMX – IMT Power and Multiplexer

IS-41 – International Standard 41 (same as and interchangeable with ANSI-41)

IS-ANR – In Service - Abnormal

ISCC – Integrated Serial Communications Controller

ISDN – Integrated Services Digital Network

IS-NR – In Service - Normal

ISUP – ISDN User Part

ITU – International Telecommunications Union

LAN – Local Area Network

LATA – Local Access Transport Area

LBP – Loop Back Point

LC – Logical Channel

LED – Light Emitting Diode

LFS – Link Fault Sectionalization

LIM – Link Interface Module

LIM-AINF – A LIM with the AINF interface

LIMATM – A LIM used with ATM (high-speed) signaling links

LIM-DSO – LIM with DSO appliqué

LIM-E1 – LIM with E1 appliqué

LIM-OCU – LIM with Office Channel Unit appliqué

LIM-V35 – LIM with V35 interface

LNP – Local Number Portability

LOC – Location

LPO – Local Processor Outage

LRN – Location Routing Number

LS – Link Set

Introduction

LSL – Low-Speed Link

LSMS – Local Service Management System

LSN – Link Set Name

LSSU – Link Status Signaling Unit

LUDT – Long User Data

LUPTS – Long User Data Services

MAAL – Management ATM Adaptation Layer

MAP – Mobile Application Part

MAPSCRN – GSM MAP Screening measurements report

MAS – Maintenance and Administration Subsystem

MASP – MAS processor

MBUS – Maintenance Bus

MBYTE – Megabyte

MCAP – MAS Communication Application Processor Card

MCP – Measurement Collection Processor

MCPM – Measurement Collection and Polling Module

MDAL – Maintenance Disk and Alarm (card)

MF – Miscellaneous frame

MIB – Management Information Base

MIM – Multi-Channel Interface Module

MNP – Mobile Number Portability

MNP-SRF – Signaling Relay Function for support of Mobile Number Portability

MPL – Multi-port LIM

MPS – Multi-Purpose Server (This device contains either Sun Netra or Tekelec TekServer platform hardware.)

MRN – Message Reference Number

MSC – Mobile Switching Center

MSU – Message Signaling Unit

MTCD – Maintenance Daily measurements report

MTCDTH – Maintenance Day-to-Hour measurements report

MTCH – Maintenance Hourly (marginal) measurements report
MTCS – Maintenance Status (link/link set) measurements report
MTP – Message Transfer Part
MTP2 – Message Transfer Part, Level 2
NDC – Network Data Collection
NE – Network Element
NI – Network Indicator
NID – Network Identification
NM – Network Management
NMD – Network Management Data
NP – Number Plan
NPA – Numbering Plan Area
NSD – Network Signaling Division
NSP – Network Services Part
OAM – Operations, Administration, and Maintenance
OAP – Operation System Support Application Processor
OOS-MA – Out of Service - Memory Administration
OOS-MT – Out of Service - Maintenance
OOS-DSBLD – Out of Service - Disabled
OPC – Originating Point Code
OSI – Open System Interconnect
OSS – Operation Support System
PC – Point Code
PCM – Power Cooling Module
PCR – Preventive Cyclic Retransmission
PDBA – Provisioning Database Application
PDBI – Provisioning Database Interface
PDN – Packet Data Network
PDU – Protocol Data Unit
PDS – Persistent Device States

Introduction

PMTC – Peripheral Maintenance

PROM – Programmable Read-only Memory

PST – Primary State for Maintenance

PVC – Permanent Virtual Circuit

Q.3 – Q.3 protocol

RAM – Random Access Memory

RBASE – Record Base measurements report

RFC – Request For Comments

RLE – Remote Link Element

RN – Routing Number

RMA – Return Material Authorization

RMC – Remote Maintenance Center

RSM – Remote Switching Module

RTDB – Real Time Database

SAAL – Signaling ATM Adaptation Layer

SCCP – Signaling Connection Control Part

SCCS – Switching Control Center System

SCM – System Configuration Manager

SCMG – SCCP Management

SCP – Service Control Point

SCRSET – Screen Set

SCSI – Small Computer System Interface

SEAC – Signaling Engineering and Administration Center

SEAS – Signalling, Engineering, and Administration System

SIB – Status Indication Busy

SIE – Status Indication Emergency alignment

SIN – Status Indication Normal alignment

SIO – Service Information Octet

SIOS – Status Indication Out of Service

SLK – Signaling Link

SLTC – SS7 Signaling Link Test Controller
SLTM – Signaling Link Test Mode
SMS – Short Message Service
SMSC – Short Message Service Center
SS7 – Signaling System #7
SSN – SS7 Subsystem Number
SSP – Service Switching Point
SST – Secondary State for Maintenance
SSU – Status Signaling Unit
STP – Signal Transfer Point
SVC – Switched Virtual Circuit
TCAP – Transaction Capabilities Application Part
TCP – Transmission Control Protocol
TDM – Terminal Disk Module
TMN – Telecommunication Management Network
TRBL – Trouble
TSM – Translation Services Module
TT – Translation Type
TVG – Group Ticket Voucher
UART – Universal Asynchronous Receiver - Transmit
UAM – Unsolicited Alarm Message
UDP – User Datagram Protocol
UDT – Unit Data Transfer
UDTS – Unit Data Transfer Service
UI – User Interface
UID – User ID
UIM – Unsolicited Information Message
UPD – Update
VCC – Virtual Circuit Connection
VCI – Virtual Channel Identifier

Introduction

VCL – Virtual Channel Link

VPC – Virtual Path Connection

VPI – Virtual Path Identifier

VSCCP – VxWorks Signaling Connection Control Part

WAN – Wide Area Network

X.25 DE – X.25 destination entity

XUDT – Extended User Data

XUDTS – Extended User Data Services

2

Preventive Maintenance

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Introduction

The procedures on the following pages are routine maintenance procedures to be performed on a scheduled basis. These procedures are recommendations that if followed will aid in maintaining system performance and data integrity.

These routines aid in detecting trouble trends and intermittent troubles. As with any maintenance activity, personnel should be encouraged to maintain a log of all routines performed. This aids the maintenance technician as well as the Tekelec Technical Services personnel in determining the source of system troubles and ways to prevent certain troubles from occurring again.

Instructions for performing required maintenance routines are provided. In the event another document may be required for a specific task, that document is referenced.

Maintaining the Fuse and Alarm Panel

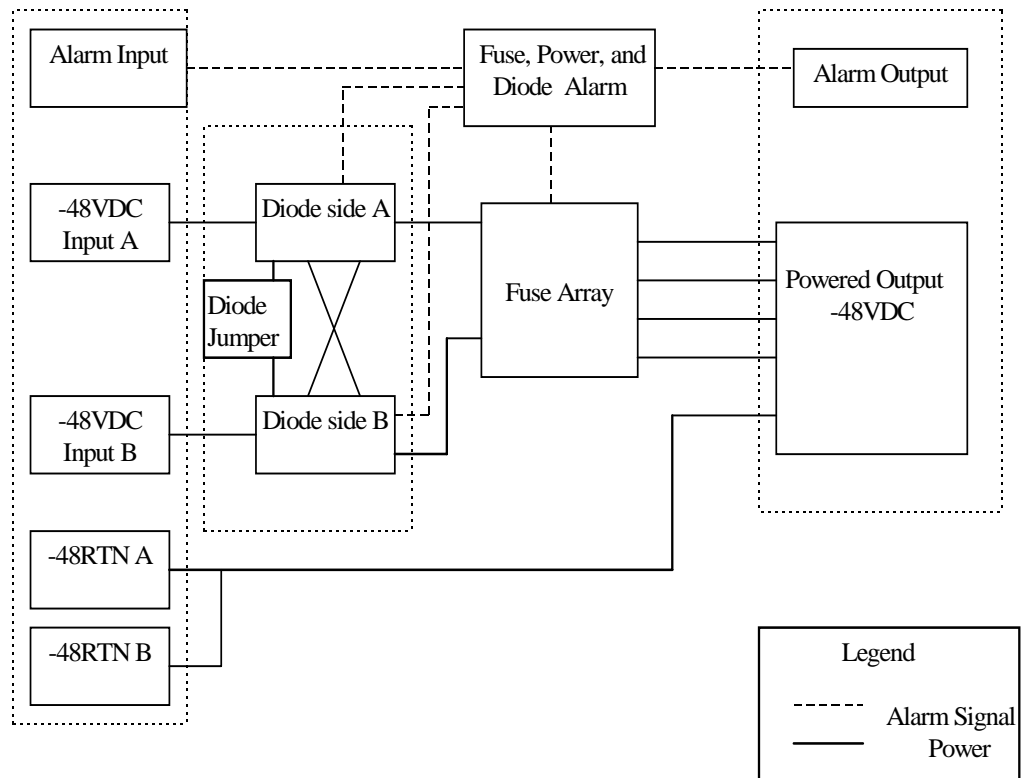
The Fuse and Alarm Panel (FAP) serves as a central location for identifying a variety of potential problem conditions. However, you may have to occasionally perform corrective maintenance on the FAP, itself.

The FAP consist of five major functions:

- Input connections
- Diodes
- Fuse Arrays
- Alarm circuitry
- Output connections

Figure 2-1 illustrates the relationship between these functions.

Figure 2-1.FAP High-Level Block Diagram



To assist your FAP maintenance efforts, this section provides information about the FAP unit:

- The FAP components
- FAP alarms
- Diode testing and the diode jumper

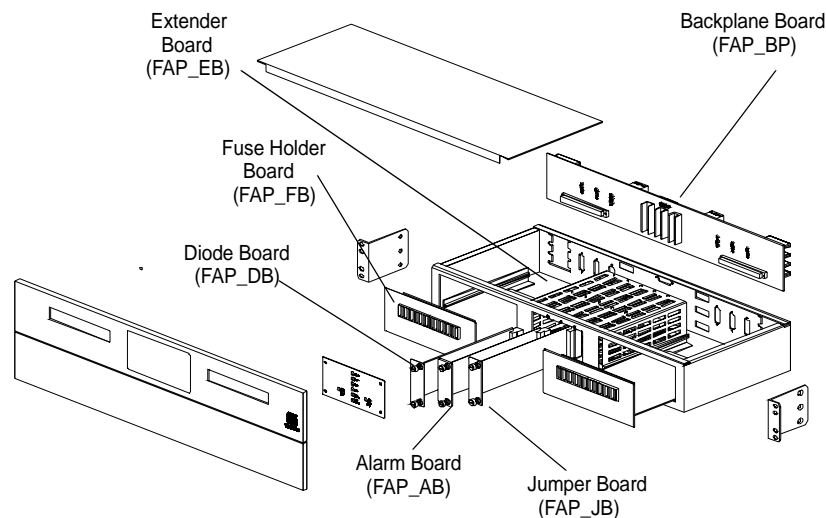
For more detailed information on the FAP and its components, refer to the *FAP Technical Reference (820-2888-01)*.

FAP Components

The FAP consists of nine printed circuit boards, each identified by an acronym on its label (see Figure 2-2):

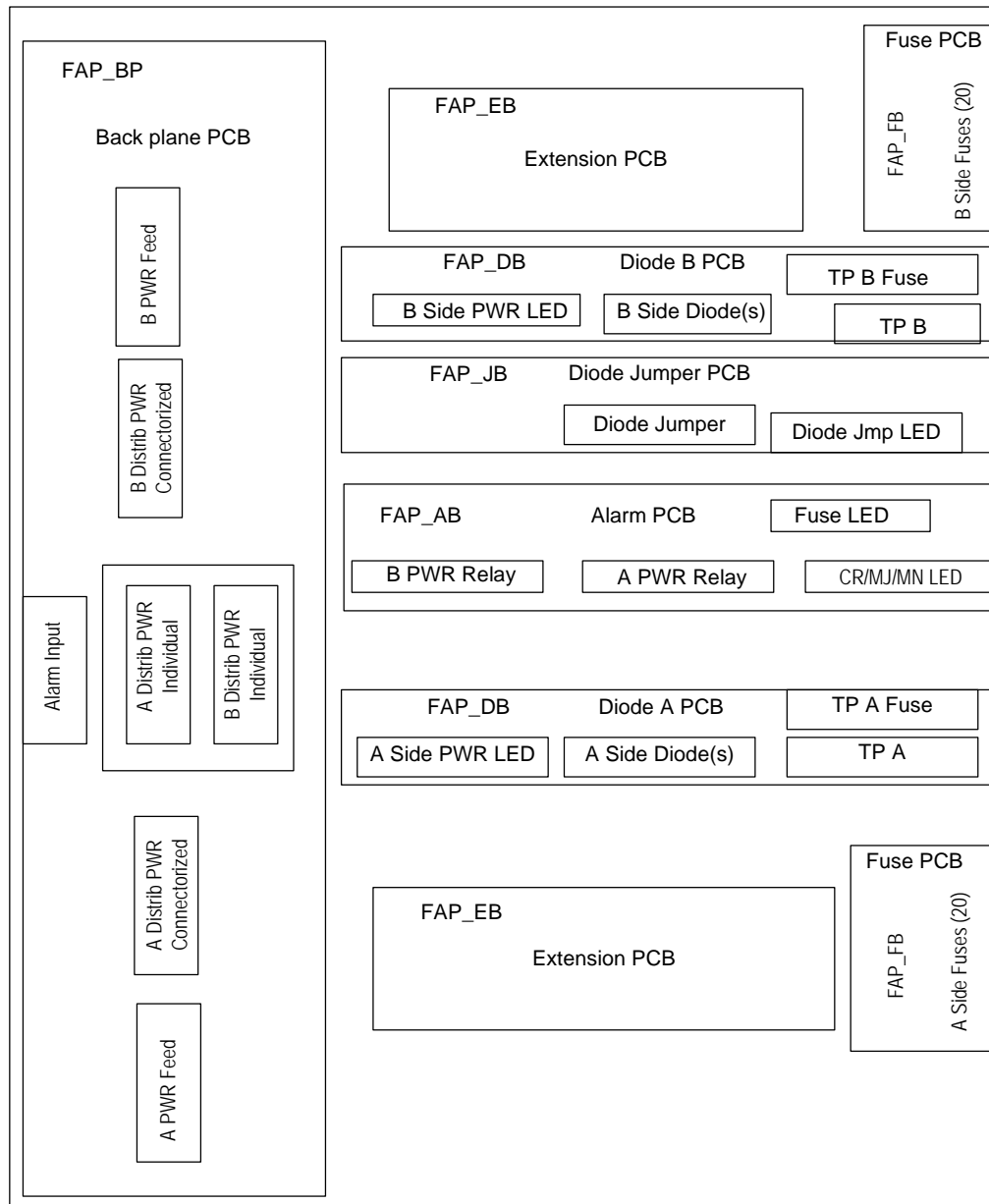
- Backplane (FAP_BP): Located inside the FAP unit, parallel to the back side of the FAP box.
- Alarm board (FAP_AB): Located on the center-right of the front panel, set vertically inside the FAP unit, perpendicular to the front panel.
- Diode boards (FAP_DB): Two boards located on the front panel, flanking the Alarm and Jumper boards on the left and right, and perpendicular to the front panel. Set vertically inside the FAP unit.
- Extender boards (FAP-EB): Two boards located inside the FAP unit, parallel to the bottom of the FAP box, on the far right and left of the unit.
- Fuse holder boards (FAP_FB): Two boards located inside and parallel to the front panel, on the far right and left of the FAP unit.
- Jumper board (FAP_JB): Located on the center-left of the front panel, set vertically in the unit, perpendicular to the front panel.

Figure 2-2. Location of FAP Components



Each of the FAP components has associated functions, as shown in Figure 2-3.

Figure 2-3.FAP Component Functions



The FAP is composed of nine circuit boards, as shown in Figure 2-1. Eight of these circuit boards are field replaceable, and can be hot-swapped.

Table 2-1. FAP Component Replacement

Component	Replacement Requirements	Part Number
FAP Backplane (FAP_BP)	Must be replaced through factory	850-0515-xx
FAP Alarm Board (FAP_AB)	Field replaceable	850-0518-xx (card) 870-1609-xx (assembly)
FAP Diode Boards (FAP_DB_A and FAP_DB_B)	Field replaceable (one at a time)	850-0517-xx (card) 870-1608-xx (assembly)
FAP Extender Boards (FAP_EB)	Field replaceable (one at a time with service interruption)	850-0519-xx
FAP Fuse Holder Boards (FAP_FB)	Field replaceable (one at a time with service interruption)	850-0516-xx
FAP Jumper Board (FAP_JB)	Field replaceable	850-0523-xx (card) 870-1641-xx (assembly)

The following sections describe each type of circuit board:

Backplane Board (FAP_BP)

The backplane circuit board provides all of the external connections for the FAP. It consists primarily of circuit routing and connectors, but also has one pull-down resistor, which provides a default alarm signal for the Fuse Alarm in the event the alarm board is removed from the FAP.

Alarm Board (FAP_AB)

The alarm circuit board provides indicators and relays for the EAGLE status and fuse alarms. This board includes a jumper (JMP50) for future use. This jumper is installed for all existing configurations.

Diode Boards (FAP_DB)

The diode circuit boards provide power diodes and power input test points. Four diode footprints are included: two for Assembly A and two for Assembly B. Only one of the four positions is intended to be populated; the second footprint is provided for future part rating changes or additional heat-dissipation capabilities.

Extender Boards (FAP_EB)

The extender board provides connection between the backpanel board and the fuse holder boards.

Fuse Holder Boards (FAP_FB)

The fuse holder boards provide 20 fuses with a common alarm.

Jumper Board (FAP_JB)

The jumper board provides the capability to by-pass the diode boards with a fuse. Use this board only for maintenance operations.

Alarms

The FAP provides visual alarms, by means of a lit LED, for a variety of status alarms (see Figure 2-2).

Table 2-2. FAP Alarm Conditions

Alarm	Alarm Condition	Remote Indications
Critical LED	<ul style="list-style-type: none"> EAGLE 5 ISS command through TDM MDAL not present and MDAL_P jumper off 	Dependent on EAGLE 5 ISS software
Major LED	EAGLE 5 ISS command through TDM	Dependent on EAGLE 5 ISS software
Minor LED	EAGLE 5 ISS command through TDM	Dependent on EAGLE 5 ISS software
Fuse LED	<ul style="list-style-type: none"> Distribution fuse blown Alarm circuit board removed (no LED indication) Jumper on the jumper circuit board is on Power feed failure 	Fuse alarm to EAGLE 5 ISS through TDM
PWR A LED	Power feed A is off, but power is available to B.	Fuse alarm to EAGLE 5 ISS through TDM
PWR B LED	Power feed B is off, but power is available to A.	Fuse alarm to EAGLE 5 ISS through TDM
OP/MAINT LED	Jumper on the jumper circuit board is on.	Fuse alarm to EAGLE 5 ISS through TDM

A fuse alarm identifies the following problems or conditions within the FAP:

- blown fuse(s)
- power loss for side A or B
- alarm card removed
- maintenance mode

Use the following indicators to determine the nature of the problem:

Table 2-3. Additional Alarm Indicators

Indicator	Alarm Condition
Fuse alarm and fuse flag down	Blown fuse
Fuse alarm and PWR A LED	Input power loss on A
Fuse alarm and PWR B LED	Input power loss on B
Fuse alarm and OP/MAINT LED is red	Diode jumper is installed (by-passing diodes)

Diode Testing and the Diode Jumper

The diode board must be tested periodically. To test a diode circuit board without powering down the entire EAGLE 5 ISS, perform the procedure listed in Table 2-4 for the corresponding FAP part number.

Table 2-4. FAP Part Numbers and Corresponding Procedures

Part Number	FAP Procedure
870-1606-01 (all revisions)	Procedure 2-1
870-1616-02 revision G or lower	Procedure 2-1
870-1606-02 revision H or higher	Procedure 2-2
870-2320-01 revision B or lower	Procedure 2-1
870-2320-01 revision C or higher (or 870-2320-03)	Procedure 2-2

Procedure 2-1. Testing the Diode Circuit Board

This procedure to test a diode circuit board without powering down the entire EAGLE 5 ISS applies to the following FAPs:

- 870-1606-01 (all revisions)
 - 870-1616-02 with a revision G or lower
 - 870-2320-01 with a revision B or lower
1. Check to verify the OP/MAINT LED is green, indicating the FAP is not in maintenance mode.
-
2. Unscrew the two thumbscrews securing the FAP jumper board and remove the board.
-

3. On the jumper circuit board, move the jumper (the DB-26 male connector) from P71 to P72. Tighten the thumbscrews connecting the jumper to its mate, to ensure a good connection. This repositioning overrides the diodes, establishing a direct connection between input and fuse panels.



WARNING: If fuses are blown, DO NOT continue with this procedure. Instead, contact Customer Care Center at the appropriate number. Refer to Contact the *Customer Care Center*, see page 1-12.

4. Make sure the glass fuses are installed and verify they are “good” by using the multimeter to check for continuity across each of the glass fuses.
5. Verify that two glass fuses are behind the P72 connector. If these fuses are not present, install them before continuing.
6. Slide the jumper board back into the FAP and verify both of the following alarms display:
 - the OP/MAINT LED lights red on the FAP
 - an EAGLE 5 ISS fuse alarm displays on the terminal

You may now remove either or both diode circuit boards without affecting EAGLE 5 ISS service.

NOTE: Using the jumper override negates the backpower protection usually provided by the diode board.

7. Locate diode board A and unscrew the two thumbscrews securing the board. Remove the board from the FAP.
8. Locate the diode to be tested. It has three pins and is attached to the large heat sink. The diode is labeled CR43.
9. Set your digital multimeter to measure resistance.
10. Measure the resistance between the center pin of the diode and either of the outside pins. Record this measurement.
11. Measure the resistance between these same pins again, but switch the multimeter leads, so the positive lead is now on the opposite pin. Record this measurement.
12. Compare the two measurements. If the diode is functioning properly, one reading should be less than 10K ohms and the other should be much greater.

Preventive Maintenance

If both readings are above or below 10K ohms, the diode may have failed. Replace the failed board with a spare diode board.

13. Repeat steps 9 through 11, measuring the resistance between the *other* outside pin and the center pin.

This completes the test for diode board A.

14. Repeat steps 6 through 12, using diode board B. This completes the test for diode board B.
-

15. Reinsert the two functional diode boards. Tighten the thumbscrews on each board to secure it to the FAP.
-

16. Unscrew the two thumbscrews securing the FAP jumper board and remove the board.
-

17. On the jumper circuit board, move the jumper (the DB-26 male connector) back from P72 to its original position on P71. Tighten the thumbscrews connecting the jumper to its mate, to ensure a good connection. This repositioning returns the diodes to their original, non-maintenance position.
-

18. Slide the jumper board back into the FAP. Verify the OP/MAINT LED lights green. The fuse alarm LED returns to green.

The diode board testing procedure is completed.

Procedure 2-2. Testing the Diode Circuit Board

This procedure to test a diode circuit board without powering down the entire EAGLE 5 ISS applies to the following FAPs:

- 870-1606-02 with revision H or higher
- 870-2320-01 with revision C or higher (or 870-2320-03)

1. Check to verify the OP/MAINT LED is green, indicating the FAP is not in maintenance mode.
-

2. Unscrew the two thumbscrews securing the FAP jumper board and remove the board.
-

3. On the jumper circuit board, unclip the 12 pin connector jumper from P71 and re-attach it to P72. Insert it until the plastic retaining clips "snap". Note that the jumper has a retaining strap so it won't get dropped or lost. This repositioning overrides the diodes, establishing a direct connection between input and fuse panels.



WARNING: If fuses are blown, DO NOT continue with this procedure. Instead, contact Customer Care Center at the appropriate number. Refer to Contact the *Customer Care Center*, see page 1-12.

4. Slide the jumper board back into the FAP and verify both of the following alarms display:
 - the OP/MAINT LED lights red on the FAP
 - an EAGLE 5 ISS fuse alarm displays on the terminal

You may now remove either or both diode circuit boards without affecting EAGLE 5 ISS service.

NOTE: Using the jumper override negates the backpower protection usually provided by the diode board.

5. Locate diode board A and unscrew the two thumbscrews securing the board. Remove the board from the FAP.

6. Locate the diode to be tested. There are two power diodes, each with three pins. They are labeled CR43 and CR44 for diode board A.

7. Set your digital multimeter to diode check mode.

8. Measure the voltage drop between the center pin of the CR43 diode and either of the outside pins with the ground probe on the center lead. Record this measurement.

9. Measure the voltage drop between these same pins again, but switch the multimeter leads, so the positive lead is now on the opposite pin. Record this measurement.

10. Compare the two measurements. If the diode is functioning properly, the first reading should be between 0.2 and 0.1 volts and the other should be read as an open circuit. Otherwise, replace the failed board with a spare diode board.

11. Repeat steps 9 through 10, measuring the voltage between the *other* outside pin and the center pin of CR43.

Preventive Maintenance

12. Repeat steps 6 through 10, using diode board B. This completes the test for diode board B.

 13. Reinsert the two functional diode boards. Tighten the thumbscrews on each board to secure it to the FAP.

 14. Unscrew the two thumbscrews securing the FAP jumper board and remove the board.

 15. On the jumper circuit board, unclip the 12 pin connector jumper back from P72 to its original position on P71. Insert it until the plastic retaining clips "snap." This repositioning returns the diodes to their original, non-maintenance position.

 16. Slide the jumper board back into the FAP. Verify the OP/MAINT LED lights green. The fuse alarm LED returns to green.
The diode board testing procedure is completed.
-

MO Removable Cartridge Description

The removable cartridge drive is located on the Maintenance Disk and Alarm Card (MDAL) in card location 1117. A removable cartridge is used for two purposes:

- To hold an off-line, backup copy of the administered data and system GPLs
- To hold a copy of the measurement tables

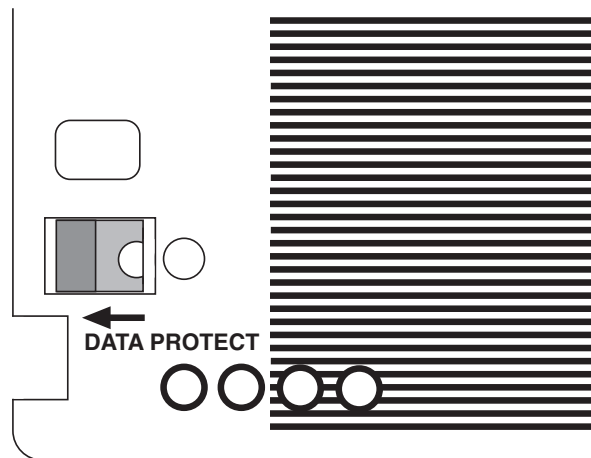
To use a removable cartridge to hold the system data, it must be formatted for system data. To use a removable cartridge to hold measurements data, it must be formatted for measurements data. The EAGLE 5 ISS provides the user the ability to format a removable cartridge for either of these purposes. A removable cartridge can be formatted on the EAGLE 5 ISS by using the **format-disk** command. For more information on the **format-disk** command refer to the *Commands Manual*.

The EAGLE 5 ISS uses a 2.3, 4.1, or 5.2 Gbyte magneto-optical (MO) removable cartridge. When the cartridge is write protected, no data can be written to the cartridge, nor can the cartridge be erased or formatted. Data can only be read from the cartridge. When the cartridge is write enabled, data can be written to the cartridge, data can be read from the cartridge, and the cartridge can be erased and formatted.

The LEDs on the front faceplate indicate critical, major, and minor alarms and card activity.

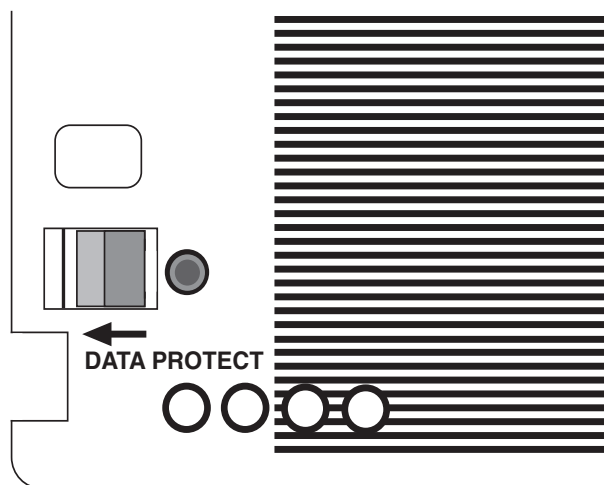
The write protecting mechanism of the MO removable cartridge is a red tab located in the lower left corner of the cartridge. Under the red tab is an arrow pointing toward the left edge of the cartridge; the words “DATA PROTECT” are under the arrow. To write-protect the MO removable cartridge, slide the red tab to the left (the direction of the arrow) until it snaps into place. The hole to the right of the tab should be clear and open. See Figure 2-4.

Figure 2-4. Write Protected Removable Cartridge (2.3 Gbyte)



To write-enable the MO removable cartridge, slide the red tab to the right, the opposite direction of the arrow, until it snaps into place. The hole to the right of the tab should be filled with a red dot. See Figure 2-5.

Figure 2-5. Write Enabled Removable Cartridge (2.3 Gbyte)

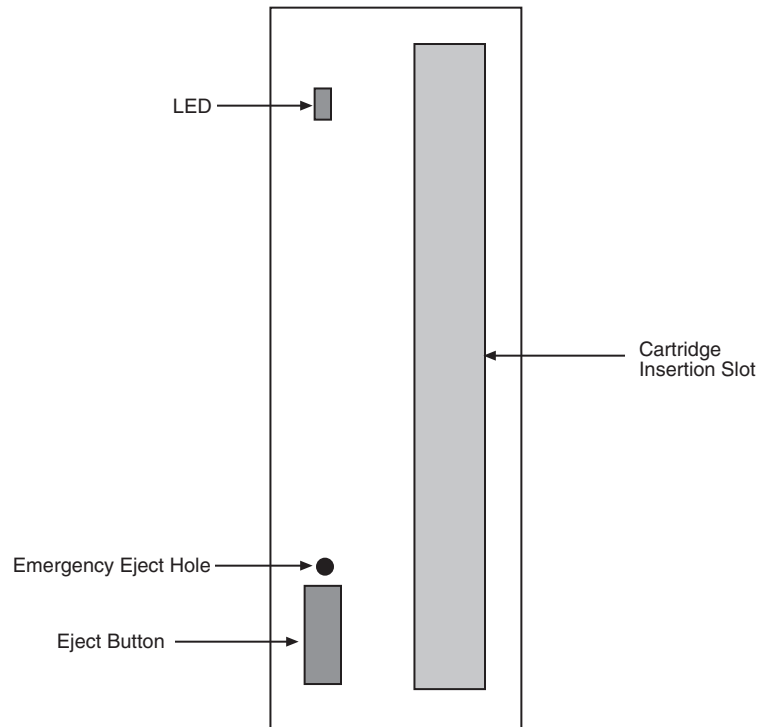


Preventive Maintenance

The MO removable cartridge is a two-sided cartridge, with sides designated as side A and side B. The MO removable cartridge drive can only access one side of the cartridge at a time; which side is accessed depends on how the cartridge is inserted into the removable cartridge drive. The side indicator is located on the shutter on each side of the removable cartridge.

Figure 2-6 shows the layout of the removable cartridge drive.

Figure 2-6. Removable Cartridge Drive Layout (2.3 Gbyte)



Removable Cartridge Handling Procedures

Purpose

This section is referenced in this manual by many procedures requiring the use of the removable cartridge and the removable cartridge drive. The procedures found in this section are recommended procedures for handling the removable cartridges.

NOTE: Removable cartridges should never be left unattended in the MDAL.

Requirements

None

Procedure 2-3. Inserting the MO Cartridge

1. To insert the removable cartridge to access side A, insert the removable cartridge into the cartridge insertion slot of the drive with the indicator for side A on the shutter facing to the right side of the drive and away from the side with the LED and the eject button.

 2. To insert the removable cartridge to access side B, insert the removable cartridge into the cartridge insertion slot of the drive with the indicator for side A on the shutter facing to the left side of the drive and toward the side with the LED and the eject button.

 3. When the removable cartridge is inserted into the removable cartridge drive, the LED is yellow. When the cartridge is ready to use, the LED is green.
-

Procedure 2-4. Removing the MO Removable Cartridge

1. Verify that the LED on the removable cartridge drive is green. If the LED is yellow, the drive is being accessed by the Eagle and the cartridge cannot be removed from the drive. Wait until the LED is green before attempting to remove the cartridge from the drive.

 2. When the LED is green, push the eject button on the removable cartridge drive. While the cartridge is being ejected from the drive, the LED is yellow.

 3. The LED is off when the cartridge is fully ejected from the drive. The cartridge can now be removed from the drive.
-

Daily Procedures

The procedures found in this section are recommended procedures for daily routine preventive maintenance. Some procedures may refer to other chapters within this document.

Backup the Database (Daily)

Purpose

This procedure is used to make a backup of the database on the fixed disk and provide a current copy of the system data to be stored on-site. This procedure can then be used in the event a fixed disk is damaged. This procedure should not be confused with the other database archival procedures. Should the backup removable cartridge created with this procedure become unreadable, the other procedures in this chapter will ensure that a good copy of the database is still available.

Requirements

The databases in the current partitions of both MASPs (FD CRNT) must be coherent.

At least one removable cartridge formatted for system data is needed for this routine. Each removable cartridge should be labeled as "Daily Backup." Each day, select the removable cartridge with this label and perform the backup procedure.

Interval

Daily

Procedure 2-5. Backing Up the Database

1. Enter the following command to check the operational status of the database:

```
rept-stat-db
```

If necessary, refer to the *Commands Manual* to interpret the output.

2. Enter the following command to create a backup of the database on the fixed disk:

```
chg-db:action=backup
```

This command should take no longer than 30 minutes to execute. It could take longer depending on other system activity that is in progress when this command is entered.

During command execution, these messages appear (the active MASP is displayed first):

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.  
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.  
BACKUP (FIXED) : MASP B - Backup starts on standby MASP.  
BACKUP (FIXED) : MASP B - Backup on standby MASP to fixed disk complete.
```

3. Insert the removable cartridge labeled “Daily Backup” into the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

4. Enter the following command to create a backup of the database on the removable cartridge:

```
chg-db:action=backup:dest=remove
```

During command execution, these messages should appear.

```
BACKUP (REMOVABLE) : MASP A - Backup starts on active MASP.  
BACKUP (REMOVABLE) : MASP A - Backup to removable cartridge complete.
```

5. Verify that the databases on the removable cartridge (RD BKUP) and the current partition of the active MASP (FD CRNT) are coherent by entering the following command:

```
rept-stat-db
```

If necessary, refer to the *Commands Manual* to interpret the output.

6. Remove the removable cartridge from the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

7. Make an entry in the site maintenance log that a backup was performed. Place the removable cartridge in a safe place, easily accessible in the event of a catastrophic failure.
-

System Reports Analysis

Purpose

The purpose of this routine is to inspect the printer outputs for possible trouble messages and routinely check the status of the STP through traffic measurements. By inspecting printouts and measurements on a daily basis, system trends can be detected and resolved.

Requirements

Printer must be configured to receive traffic reports. Measurements collection must be activated before reports containing current data can be printed. Enter the following command to activate measurements collection, if necessary:

```
chg-meas:collect=on
```

Refer to the *Commands Manual* for more information. If measurements are already allowed, an error message indicates this.

Reports Description

Purpose

This includes a system terminal and printer output system related messages as well as network protocol messages. Any abnormal activity (this is network dependent) should be highlighted and saved for later retrieval. Refer to Chapter 3, *Corrective Maintenance* for a description of system related messages and procedures for recovery.

Requirements

None

Interval

Daily

Variables

hh = The end half-hour interval (0 - 2330) for requested interval

Procedure 2-6. System Reports Analysis

1. Enter the following command to print a measurements report for the STP entity type:

```
rept-meas:type=systot:enttype=stp
```

2. Enter the following command to print a measurements report for the link entity type (this command requires either the loc and port parameters or the lsn parameter):

```
rept-meas:type=comp:enttype=link
```

- Review the STP report and compare with the link report. If excessive errors exist on any one particular link, enter the following command to print a report for the time period the errors occurred:

```
rept-meas:enttype=link:period=specific:hh
```

Refer to the *Commands Manual* for more information on using the **rept-meas** command.

- From this report, determine what events may have occurred during the 30 minute measurements collection period.
-

File Transfer for LNP and INP Measurements

NOTE: EAGLE 5 ISS systems supporting an ITU network are not configured with the LNP or SEAS features.

Purpose

The purpose of this procedure is to output LNP/INP measurements to the file transfer area (FTA) so the measurements can be collected.

Requirements

A computer with a VT320 or KSR connection to the EAGLE 5 ISS. A communication program that both emulates VT terminals and supports Kermit file transfer. Previous LNP/INP measurement files must have been successfully transferred and deleted (**dlt-fta**) before the start of this procedure. A spreadsheet program that can import Comma Separated Value (CSV) text files. A PC running ProComm© for Windows and Microsoft Excel© can also be used.

Interval

Daily and/or weekly.

Procedure 2-7. File Transfer for LNP and INP Measurements

- From the EAGLE 5 ISS VT320 or KSR terminal, enter the following command to display the contents of the FTA:

```
disp-fta-dir:loc=xxxx
```

Where *xxxx* = the active TDM (1114 or 1116).

- From the EAGLE 5 ISS VT320 or KSR terminal, enter the following command to delete any existing files from the FTA:

```
dlt-fta:loc=xxxx:all=yes
```

Preventive Maintenance

Where *xxxx* = the active TDM (1114 or 1116)

3. In this example, from the EAGLE 5 ISS VT320 or KSR terminal, enter the following command to send LNP daily measurements to the FTA:

```
rept-meas:enttype=lnp:type=mtcd
```

4. Enter the following command to activate the file transfer:

```
act-file-trns:loc=xxxx
```

Where *xxxx* = the active TDM (1114 or 1116).

5. Enter the following command to acquire a list of the files transferred to the FTA in step 4:

```
disp-fta-dir:loc=xxxx
```

Where *xxxx* = the active TDM (1114 or 1116).

6. Transfer the desired files (with .csv suffixes) to the PC by using the get command from within the communications program configured to run Kermit in ASCII mode.

An example of the Kermit commands to extract the previous day's records are as follows:

```
> get mon_lnp.csv  
> get tues_ssp.csv  
> get thu_lrn.csv  
> get sat_npa.csv  
> finish
```

7. Run a spreadsheet program and open each of the files collected to view the LNP/INP measurement data.
-

8. Once all the files are successfully transferred and confirmed, enter the following command to remove the files from the FTA:

```
dlt-fta:loc=xxxx:all=yes
```

Where *xxxx* = the active TDM (1114 or 1116)

Weekly Procedures

The procedures found in this section are recommended for weekly routine preventive maintenance. Some procedures may refer to other chapters within this document.

Database Archive (Weekly)

Purpose

The purpose of this procedure is to create a copy of the database on a weekly basis over a period of four weeks to be stored in an archive. The copies can then be used in the event a removable cartridge is damaged, and a new copy is required. This routine will generate four copies of the database, all taken at weekly intervals.

Each tape in this cycle should be designated as Week 1, Week 2, Week 3, or Week 4. When all four removable cartridges have been used, repeat the process starting with the Week 1 cartridge.

Requirements

Four removable cartridges formatted for system data are required for this routine. The removable cartridge should be labeled "Week 1" through "Week 4." Once each week, select the removable cartridge with the appropriate label and perform the backup procedure. Each week, select the removable cartridge with the next sequential number and perform this procedure.

Interval

Weekly

Procedure 2-8. Archiving the Database

1. Enter the following command to check the operational status of the database:

```
rept-stat-db
```

If necessary, refer to the *Commands Manual* to interpret the output.

2. Insert the removable cartridge labeled "Week x" into the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

3. Enter the following command to create a backup of the database on the removable cartridge:

```
chg-db:action=backup:dest=remove
```

Preventive Maintenance

During command execution, these messages should appear.

```
BACKUP (REMOVABLE) : MASP A - Backup starts on active MASP.  
BACKUP (REMOVABLE) : MASP A - Backup to removable cartridge complete.
```

4. Verify that the databases on the removable cartridge backup partition (RD BKUP) and the current partition of the active maintenance and administration subprocessor system (MASP) fixed disk current partition (FD CRNT) are coherent by entering the following command:

rept-stat-db

If necessary, refer to the *Commands Manual* to interpret the output.

5. Remove the removable cartridge from the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

6. Make an entry in the site maintenance log that a backup was performed for the appropriate week (Week 1, Week 2, Week 3, or Week 4). Place the removable cartridge in a safe place, easily accessible in the event of a catastrophic failure.
-

Printer Inspection

Purpose

This procedure verifies the printer is operational and the ribbon does not need replacement. Should the printer cease operation, system reports and trouble reports would not be printed at the system printer. Use the following procedure to verify the operation of the printer.

Requirements

A printer connected through an RS232 to a serial port on the EAGLE 5 ISS control shelf backplane. Refer to the printer user manual (provided by the printer manufacturer) for detailed specifics on maintaining the printer.

Interval

Weekly

Variables

x = TDM serial port number (1-16)

Procedure 2-9.

1. Verify the carriage assembly is free of any debris. Remove the top of the printer if necessary.

2. Check that the power indicator is illuminated (on). If not, verify the power cord is plugged in.

3. Check the online indicator. If off, press the select button. Verify the indicator is illuminated.

4. Verify the presence of on-line indicators using the printer *Users Manual*.

5. Enter the following command to send output to the printer:
act-echo:trm=x.

6. Type the following command at a terminal to verify the printer is operating:
rept-stat-trm
If the printer does not print any messages, check the printer cable and verify it is connected to a system terminal. If not, reconnect the printer cable (refer to the *Installation Manual* for cable pinouts).

7. Look at the printout. If the ink is faded and difficult to read, replace the ribbon. Refer to the *Users Manual* provided by the manufacturer for ribbon replacement procedures.

Remote Access Verification

Purpose

The purpose of this routine is to verify proper operation of the modem used for remote access of the EAGLE 5 ISS system.

Requirements

Remote terminal and modem.

Interval

Weekly

Procedure 2-10.

1. From a remote PC or terminal, dial the telephone number of the modem connected to the Eagle.

2. When connected, verify you are able to log in to the EAGLE 5 ISS system and enter commands.

3. Once you have verified the operation of the modem, logoff from the EAGLE 5 ISS and terminate your connection.

Monthly Procedures

The procedures found in this section are recommended procedures for monthly routine preventive maintenance. Some procedures may refer to other chapters within this document.

Database Archive (Monthly)

Purpose

The purpose of this procedure is to create a copy of the database on a monthly basis over a period of four months to be stored in an archive. The copies can then be used in the event a removable cartridge is damaged, and a new copy is required. This routine will generate four copies of the database, all taken at monthly intervals.

Each tape in this cycle should be designated as Month 1, Month 2, Month 3, or Month 4. When all four removable cartridges have been used, repeat the process starting with the Month 1 cartridge.

Requirements

Four removable cartridges formatted for system data are required for this routine. The removable cartridge should be labeled "Month 1" through "Month 4." Once each month, select the removable cartridge with the appropriate label and perform the backup procedure. Each month, select the removable cartridge with the next sequential number and perform this procedure.

Interval

Monthly

Procedure 2-11.

1. Enter the following command to check the operational status of the database:

```
rept-stat-db
```

If necessary, refer to the *Commands Manual* to interpret the output.

2. Insert the removable cartridge labeled “Month x” into the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

3. Enter the following command to create a backup of the database on the removable cartridge:

```
chg-db:action=backup:dest=remove
```

```
BACKUP (REMOVABLE) : MASP A - Backup starts on active MASP.
```

```
BACKUP (REMOVABLE) : MASP A - Backup to removable cartridge complete.
```

4. Verify that the databases on the removable cartridge (RD BKUP) and the current partition of the active MASP (FD CRNT) are coherent by entering the following command:

```
rept-stat-db
```

If necessary, refer to the *Commands Manual* to interpret the output.

5. Remove the removable cartridge from the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

6. Make an entry in the site maintenance log that a backup was performed for the appropriate month (Month 1, Month 2, Month 3, or Month 4). Place the removable cartridge in a safe place, easily accessible in the event of a catastrophic failure.
-

FAP Load Balance Verification (PN 870-0243-XX only)**Purpose**

This procedure is used to verify the Load Balance Factor (LBF) for the A and B power supplied to each Fuse and Alarm Panel (FAP) in the EAGLE 5 ISS. This procedure applies ONLY to installed FAPs with Tekelec P/N 870-0243-XX.

Preventive Maintenance

The LBF is an empirically derived number that provides an indication if a Tekelec STP System Frame has an open power distribution diode. The difference in amperage between the “A” versus “B” battery leads should be within a “typical” range. Values outside of this range should be an indication of a potential problem and requires further investigation.

Requirements

Tekelec recommends that the verification be performed using a Clamping Type Multimeter (Clamp Amp Meter). If the Clamp Meter has different settings or functions than the ones described in this procedure, consult the instruction manual for this meter and determine substitute settings or functions. Results of this verification should be recorded on the form provided with this procedure and filed with the STP System maintenance records.



CAUTION: This procedure must be performed with the utmost Caution. All safety precautions associated with in service equipment and power must be strictly followed. Any equipment that is below the shelf that is being worked on must be protected from falling tools or debris. All jewelry, rings, watches must be removed before this procedure is started. Read this procedure completely before proceeding.

Interval

Monthly

Procedure 2-12.

1. Login to system via a dedicated terminal or connect a PC to an EAGLE 5 ISS terminal port. Open a capture log via ProComm Plus or other PC communications program.

2. Enter the following command to determine the status of all the cards in the system.

rept-stat-card

If necessary, refer to the *Commands Manual* to interpret the output. Save the results to compare with the outputs at the conclusion of this procedure.

3. Enter the following command to verify the status of the signaling links

rept-stat-slk

If necessary, refer to the *Commands Manual* to interpret the output. Save the results to compare with the outputs at the conclusion of this procedure.

4. Enter the following command to get a report of all the device trouble notifications that are currently logged in the OAM RAM storage area:

```
rept-stat-trbl
```

If necessary, refer to the *Commands Manual* to interpret the output. Save the results to compare with the outputs at the conclusion of this procedure.

5. Enter the following command to check the status of the IMT:

```
rept-stat-imt
```

If necessary, refer to the *Commands Manual* to interpret the output. Save the results to compare with the outputs at the conclusion of this procedure.

6. Enter the following command to check the status of the SCCP subsystem:

```
rept-stat-sccp
```

If necessary, refer to the *Commands Manual* to interpret the output. Save the results to compare with the outputs at the conclusion of this procedure.

7. Enter the following command to check the operational status of the database:

```
rept-stat-db
```

If necessary, refer to the *Commands Manual* to interpret the output. Save the results to compare with the outputs at the conclusion of this procedure.

Verify that FD CRNT and FD BKUP for TDM 1114 and TDM 1116 match.

If they do not match, perform Procedure 2-5 *Backing Up the Database* on page 2-17 before continuing.

WARNING: Do not proceed to the next step if the backup fails.



8. Set the Clamp Amp Meter to measure DC amps. Set the dial to the DC 400A setting and zero out/adjust the meter by turning the 0 ADJ control. The meter must read 00.0.

NOTE: On the inside of the Clamp Amp Meter there should be an arrow. The arrow must always be pointing towards the frame when clamped around the cable. If the meter cannot be directly observed, the DATA HOLD function can be utilized, if the meter is so equipped, and the reading will hold. The jaws of the meter must be around the cable for the DATA HOLD function to operate.

Values of less than 1.0 Amp on BOTH the "A" and "B" sides are not applicable. Ignore plus (+) or minus (-) in the meter reading.

Preventive Maintenance

9. Measure the current on the **A** side of the EAGLE 5 ISS Frame FAP selected for verification. Clamp the meter around the **-48VDC A** battery cable on the FAP. Record the reading on the Test Record form on page 2-31.

10. Depress the DATA HOLD function again, if this option was utilized in Step 9. Verify the Clamp Amp Meter reading is 00.0. The meter must read 00.0 before proceeding with Step 11

11. Measure the current on the **B** side of the EAGLE 5 ISS Frame FAP selected in Step 9. Clamp the meter around the **-48VDC B** battery cable on the FAP. Record the reading on the Test Record form on page 2-31.

12. Calculate the Load Balance Factor (LBF) and record on the Test Record Form on page 2-31.
 - Compute the difference between **A** and **B** sides (**A-B**) or (**B-A**).
 - The difference is divided by the lower of the two (2) measured values (**A** or **B**) and expressed as a percentage. This percentage is the LBF.
 - Enter the LBF in the appropriate space on the Test Record form.

Refer to Figure 2-7 and Figure 2-8 for examples of this formula. Data indicates that the acceptable range can be between 0% and 125%. The 125% point is a **Flag** that indicates further investigation is warranted. It indicates the potential for at least one open diode.

Figure 2-7. Open Diode Example

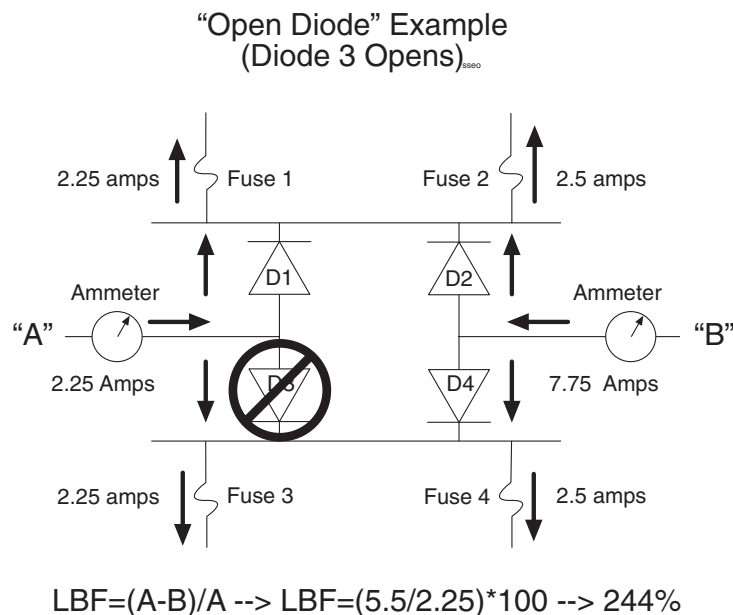
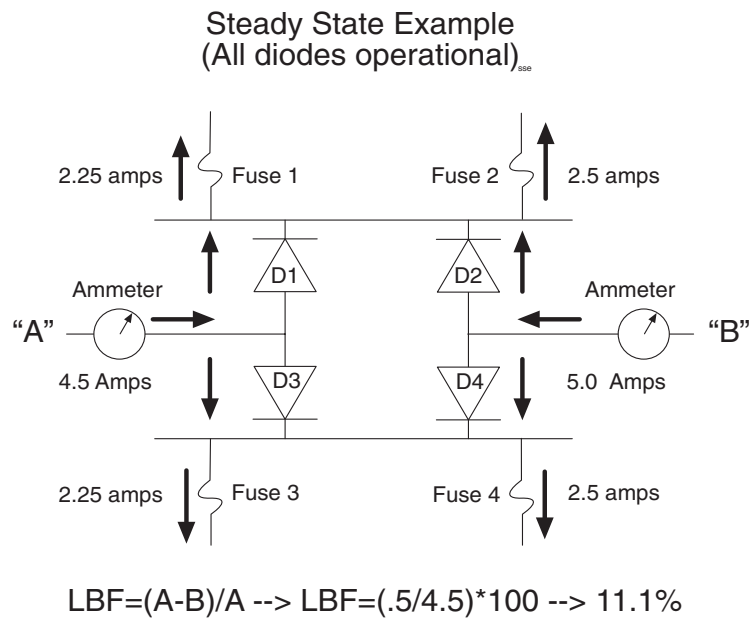


Figure 2-8.Steady State Example



-
13. Contact the *Customer Care Center*, see page 1-12, for values above the 125% threshold.
-
14. Depress the DATA HOLD function again, if this option was utilized in Step 9. Verify the Clamp Amp Meter reading is 00.0. The meter must read 00.0 before proceeding with Step 15
-
15. Repeat Steps 8 through 14 for all EAGLE 5 ISS FAPs.
-
16. Enter the following command to determine the status of all the cards in the system.
- rept-stat-card**
- Compare the output with the results from Step 2 The outputs should be the same as initially recorded.
-
17. Enter the following command to verify the status of the signaling links
- rept-stat-slk**

Preventive Maintenance

Compare the output with the results from Step 3 The outputs should be the same as initially recorded.

18. Enter the following command to get a report of all the device trouble notifications that are currently logged in the OAM RAM storage area:

rept-stat-trbl

Compare the output with the results from Step 4 The outputs should be the same as initially recorded.

19. Enter the following command to check the status of the IMT:

rept-stat-imt

Compare the output with the results from Step 5 The outputs should be the same as initially recorded.

20. Enter the following command to check the status of the SCCP subsystem:

rept-stat-sccp

Compare the output with the results from Step 6 The outputs should be the same as initially recorded.

21. Enter the following command to check the operational status of the database:

rept-stat-db

Compare the output with the results from Step 7 The outputs should be the same as initially recorded.

Table 2-5. Tekelec Method of Procedure Test Record

TEKELEC Method of Procedure Test Record					
Frame	A Battery	B Battery	A-B Delta (Amps)	Load Balance Factor (LBF)	Technician/Date
CF 00					
EF 00					
EF 01					
EF 02					
EF 03					
EF 04					
OAPF					
MISC					

Table 2-5. Tekelec Method of Procedure Test Record

TEKELEC Method of Procedure Test Record					
Frame	A Battery	B Battery	A-B Delta (Amps)	Load Balance Factor (LBF)	Technician/Date

NOTE: Complete this test record for all FAP tests. Retain this record in the Tekelec Eagle STP System maintenance files.

Change the Fan Tray Filter

Purpose

The purpose of this routine is to make sure a clean and adequate supply of air is available to cool the HC MIM cards.

Requirements

A replacement fan tray filter.

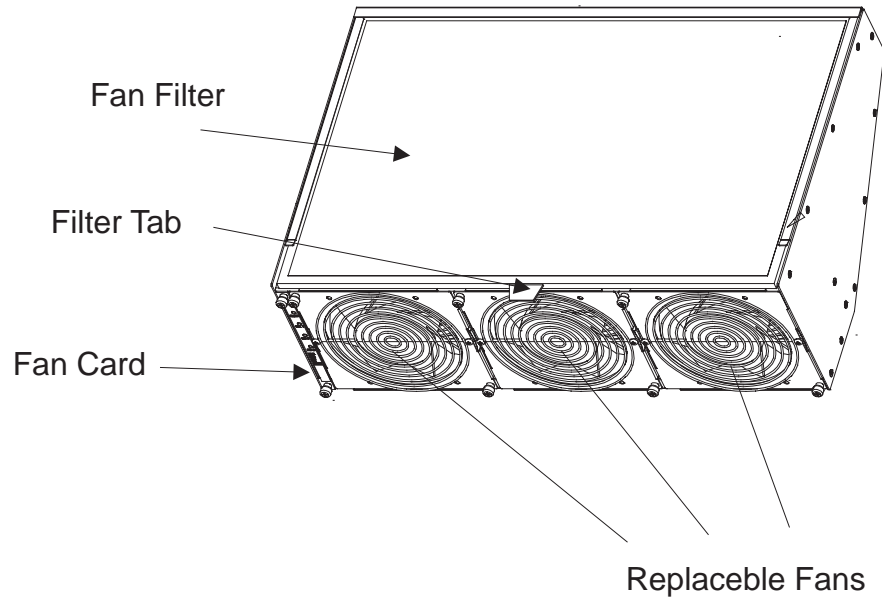
Interval

Monthly.

Procedure 2-13.

1. Locate the filter tab on the fan assembly.

Figure 2-9.Fan Assembly



-
2. Pull the filter tab to remove the fan tray filter.
-
3. Insert the replacement filter into the fan filter slot. Align the filter over the replaceable fans.
-

Changing the Air Supply Filter

Purpose

The purpose of this routine is to prevent dirt and dust from building up around the fan units, hindering them from cooling the shelf effectively.

Requirements

A replacement air filter (P/N 551-0011-01).

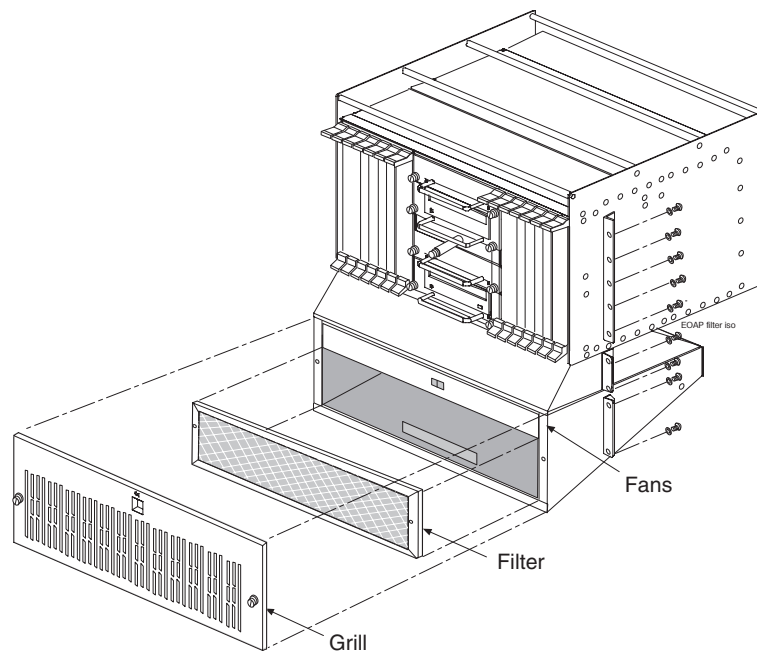
Interval

Every 45 days.

Procedure 2-14.

1. Turn the fan power switch to the OFF position. The *Active* LED under the fans becomes unlit and the fan *Alarm* LED turns red. The EAGLE 5 ISS generates a UAM indicating a fan failure.
 2. Unscrew the two thumbscrews securing the grill and remove it. The air filter is now accessible.
-

Figure 2-10. Fan Filter Replacement



3. Remove and discard the old air filter.
 4. Position the new air filter so that it covers the opening to the fan assembly. Check the bottom edge of the filter to make sure the airflow indicator arrows are pointing away from you and towards the fan assembly.
-

Preventive Maintenance

5. To replace the grill, position it on the fan assembly and screw in the two thumbscrews to secure the grill in place.
-
6. Turn the fan power switch to the ON position. The two LEDs for the fan assembly turn green and the EAGLE 5 ISS generates a UIM to indicate the fan alarm is cleared.
-

Cleaning Printer

Purpose

The purpose of this routine is to prevent the system printer from building up dirt and dust around the print heads and carriage assemblies, preventing it from operating.

Requirements

Printer cleaning kit, or cleaning solvent. Cotton swabs and damp cloth.

Interval

Monthly

Procedure 2-15.

Follow the manufacturer's procedures for cleaning the print head and carriage assembly.

Fuse Spares Inventory

Purpose

This routine verifies ample spare fuses are available. Fuses are used in the fuse and alarm panel (FAP).

Requirements

None

Interval

Monthly

Procedure 2-16.

Two types of fuses are used in the EAGLE 5 ISS:

- Industry standard GMT fuse 1 amp
- Industry standard GMT fuse 3 amp

Spare fuses are stored in a fuse tray located on the side of each frame. Check that both types of GMT fuses are in this tray. Tekelec recommends no fewer than five of each fuse type be readily accessible.

If the EAGLE 5 ISS is not located at the end of a bay, check your facility's spare fuse storage.

GMT fuses are industry standard fuses and are provided by Tekelec during installation of the system. Additional inventory of these fuses should be purchased through Tekelec.

Wrist Strap Test**Purpose**

The purpose of this routine is to verify the integrity of the anti-static wrist strap and ground cord used when handling cards from the EAGLE 5 ISS.

Requirements

Ohmmeter, wrist strap (equipped with the EAGLE 5 ISS).

Interval

Monthly

Procedure 2-17.



DANGER: If the resistance measured is less than 800 Kohms, you may be electrocuted if the equipment short circuits while you are wearing the wrist strap. If the resistance measured is greater than 1200 Kohms, you may damage your equipment.

1. Detach the grounding cord from the wrist strap.
-
2. Using an ohmmeter, measure the resistance between the two ends of the ground cord.
-

Preventive Maintenance

3. If you measure a resistance between 800 Kohms and 1200 Kohms, the ground cord is safe to continue using.
-
4. If you measure a resistance that is not between 800 Kohms and 1200 Kohms, discard the ground cord and wrist strap. They are no longer safe to use.
-

Quarterly Procedures

The procedures found in this section are recommended procedures for quarterly routine preventive maintenance. Some procedures may refer to other chapters within this document.

Database Archive (Quarterly)

Purpose

The purpose of this routine is to create an archive copy of the EAGLE 5 ISS database. This archive copy should be stored off-site and saved for emergency recovery when all other procedures have failed. This routine will reuse the same removable cartridge each quarter.

Requirements

This procedure requires a removable cartridge formatted for system data.

Interval

Quarterly

Procedure 2-18.

1. Enter the following command to check the operational status of the database:

rept-stat-db

If necessary, refer to the *Commands Manual* to interpret the output.

2. Insert the removable cartridge labeled "Archive" into the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

3. Enter the following command to create a backup of the database on the removable cartridge:

chg-db:action=backup:dest=remove

BACKUP (REMOVABLE) : MASP A - Backup starts on active MASP.

BACKUP (REMOVABLE) : MASP A - Backup to removable cartridge complete.

4. Verify that the databases on the removable cartridge (RD BKUP) and the current partition of the active MASP (FD CRNT) are coherent by entering the following command:

rept-stat-db

If necessary, refer to the *Commands Manual* to interpret the output.

5. Remove the removable cartridge from the removable cartridge drive on the MDAL card.

Reference: Removable Cartridge Handling Procedures

6. Make an entry in the site maintenance log that a backup was performed on the "Archive" removable cartridge. Place the removable cartridge in a safe place off-premise. This copy is for emergency recovery in the event all other methods of database recovery failed.
-

Preventing Dust Buildups

Purpose

The purpose of this routine is to prevent dust build-up in and around the cabinet. Collection of dust within the EAGLE 5 ISS can allow electrostatic charges to build around circuit cards, possibly damaging cards installed in the system.

Requirements

Damp cloth

Interval

Quarterly

Procedure 2-19.

NOTE: Do not use compressed air. Do not remove the plexiglass panels from the rear of the frame. This procedure is to be used for removing dust from the front of the system and from around the card cages only.

Preventive Maintenance

1. Open the cabinet doors on the front of the cabinet(s). Using a damp cloth, wipe the dust from the doors and from the front of the card cages.
 2. Using the same cloth, wipe the dust from the air intakes and around the exterior of the system frames.
-

Rectifier Voltage Inspection/Recording

Purpose

The purpose of this routine is to verify that the rectifier is providing adequate voltages and has not become a marginal supply. By identifying power supply problems early, the possibility of failure can be circumvented.

Requirements

Volt meter capable of measuring DC voltages in the range of -20VDC to -60VDC.

Interval

Quarterly

Procedure 2-20.

1. Locate the power source for the EAGLE 5 ISS.
 2. Using a VOM, measure the -48VDC supply.
 3. Verify voltages are between -46VDC and -52VDC. (If voltages are higher or lower, refer to the manufacturers maintenance procedures for appropriate action).
-

Semi-Annual Procedures

The procedure found in this section is recommended for semi-annual (every 6 months) routine preventive maintenance. Some procedures may refer to other chapters within this document.

Spare Inventory Rotation

Purpose

The purpose of this routine is to verify the integrity of spare cards. By rotating spares on a regular basis, their operation can be verified before they are needed as replacements.

Requirements

None

Interval

Semi-annually (every 6 months)

Procedure 2-21.



WARNING: This procedure may interrupt service. Verify the type of card and service it provides, and only use this routine during the maintenance window.

1. Identify the spare cards in your inventory.

 2. Locate the card in service that matches the configuration of your spare card.

 3. Verify the part numbers and revision numbers of the cards are compatible.

 4. Refer to Appendix A, *Card Removal/Replacement Procedures* for the proper procedure for each card type.

 5. Place the card from your spares inventory into the now empty slot. Perform any administrative commands described in Appendix A.

 6. Make an entry in the site maintenance log and place the card removed from the system into your spares inventory.
-

3

Corrective Maintenance

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Introduction

The EAGLE 5 ISS trouble detection is distributed throughout the system. Each processor continually monitors its internal subsystems and certain external subsystems. Whenever a trouble condition changes state, the processor analyzes the change and stores the analysis for reporting to the active MASP. The trouble detection software does not affect the service quality of the system.

Each MASP is made up of two cards, the GPSM-II card (General Purpose Service Module II) and the TDM (terminal disk module).

The GPSM-II card contains the communications processor and applications processor and provides connections to the IMT bus. The GPSM-II controls the maintenance and database administration activity.

The TDM contains the fixed disk drive, the terminal processor for 16 serial I/O ports and an interface to the MDAL (maintenance disk and alarm) card which contains the removable cartridge drive and alarm logic. There is only one MDAL card in the maintenance and administration subsystem and it is shared between the two MASPs.

The TDM is associated with a specific GPSM-II card. For example, the TDM in location 1114 is associated with the GPSM-II in location 1113 and the combination of these two cards is designated as MASP A. The TDM in location 1116 is associated with the GPSM-II in location 1115 and the combination of these two cards designated as MASP B. When MASP A is active, the GPSM-II in location 1113 and TDM in location 1114 are active. When MASP A is standby, the GPSM-II in location 1113 and TDM in location 1114 are standby. One MASP is always active and the other MASP is always standby.

To determine which MASP is active either enter the **rept-stat-db** command, or enter the **rept-stat-card** command, or examine the LEDs on both TDM cards. If the LED on the TDM card is green, the associated MASP is active. (If the LED on the TDM card toggles between green and amber, the associated MASP is standby.)

The output of the **rept-stat-db** command shows which MASP is active with the indicator (*ACTV*) following the TDM card location. The indicator (*STDBY*) following the TDM card location shows which MASP is standby.

The output of the **rept-stat-card** command shows which MASP is active with the entry *ACTIVE* in the *SST* field for the GPSM-II card. The entry *STANDBY* in the *SST* field for the GPSM-II card shows which MASP is standby.

The database commands, such as **rept-stat-db**, refer to the TDM because the TDM contains the fixed disk drive for the MASP. The MDAL is only referred to when inserting or removing the removable cartridge because the removable cartridge drive resides on the MDAL.

System Alarm Levels

There are three levels of alarms in the EAGLE 5 ISS system. They are:

- Critical
- Major
- Minor

Critical

A critical alarm is an indication of a severe service affecting problem that can be related to traffic, billing, and maintenance capabilities and requires immediate maintenance attention, regardless of time of day.

Major

A major alarm is an indication of a problem that seriously affects system operation, maintenance and administration, etc. and requires immediate attention. The urgency is less than in critical situations because of a lesser immediate or impending effect on system performance, customers, and operating company operations and revenue.

Minor

A minor alarm is an indication of a problem that does not have a serious impact on service, and does not require immediate maintenance attention.

Trouble Detection

The first step in analyzing a system trouble is to know when a trouble exists. The EAGLE 5 ISS handles this task through:

- Audible alarms
- Visual alarms
- Event/error messages

Corrective Maintenance

Audible Alarms

The EAGLE 5 ISS has three types of audible alarms: critical, major and minor. Audible alarms are generated by the maintenance disk and alarm card (MDAL), and can be heard through the electronic sonalert device installed on the card. Each alarm has its own distinct cadence as described in the following:

- Critical - Two tones 0.5 seconds apart, separated by 1.5 seconds of silence.
- Major - Single tone, separated by 1.5 seconds of silence.
- Minor - Single tone of 5 seconds or continuous tone for power plant alarm.

Visual Alarms

The EAGLE 5 ISS has several types of visual alarms. They are:

- MDAL LEDs
- Alarm LEDs on the Fuse and Alarm Panel (FAP)
- Alarms displayed on the system terminal
- LEDs on application cards
- End cabinet alarm indicators

Maintenance personnel usually see the alarm LEDs on the fuse and alarm panel (FAP) and the alarms displayed on the system terminal screen to alert them that a system problem exists. The LEDs on a card help maintenance personnel diagnose where a problem exists.

MDAL LEDs

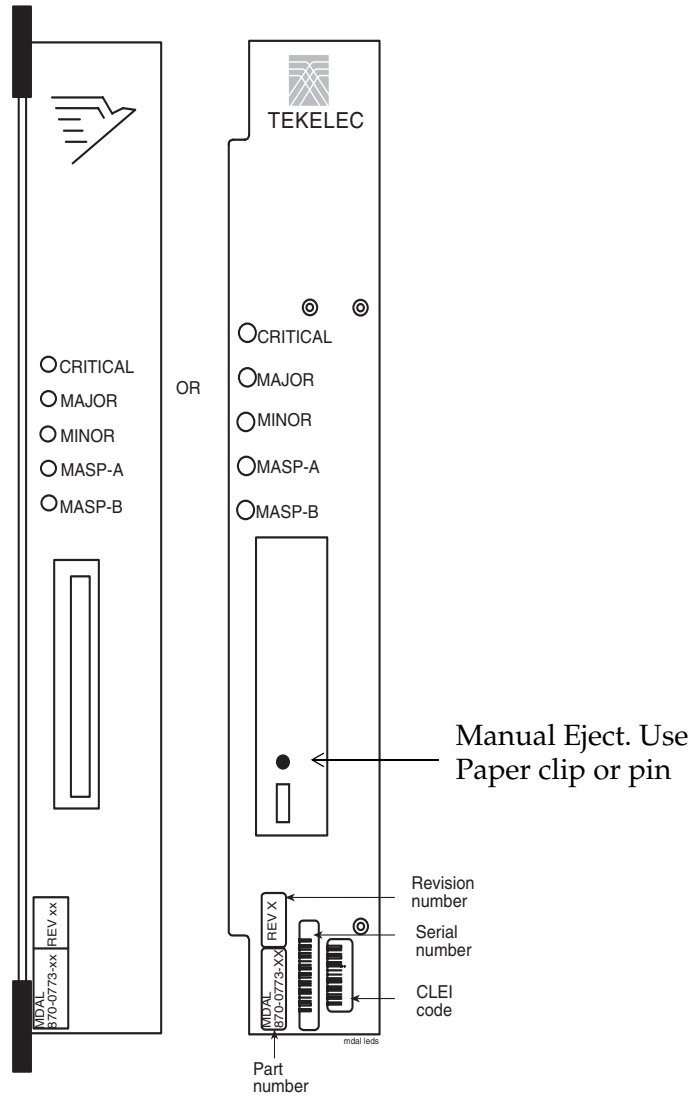
Following are the five alarm LEDs on the face of the MDAL card. See Figure 3-1:

- Critical
- Major
- Minor
- MASP-A
- MASP-B

When the system detects an alarm, the appropriate alarm level and location (MASP-A or MASP-B) LEDs illuminate. See Figure 3-1.

NOTE: Verify the state of the MDAL card by observing the LEDs on the face of the MDAL card. The fuse and alarm panel do not reflect any alarms caused by the MDAL card.

Figure 3-1. MDAL Alarm LEDs



LEDs	Descriptions
CRITICAL	RED - Critical alarm condition detected GREEN - No alarm
MAJOR	RED - Major alarm condition detected GREEN - No alarm
MINOR	AMBER - Minor alarm condition detected GREEN - No alarm
MASP-A	GREEN - MASP-A is the active MASP OFF - MASP-A is the standby MASP or is not present
MASP-B	GREEN - MASP-B is the active MASP OFF - MASP-B is the standby MASP or is not present

Alarm LEDs on the Fuse and Alarm Panel (FAP)

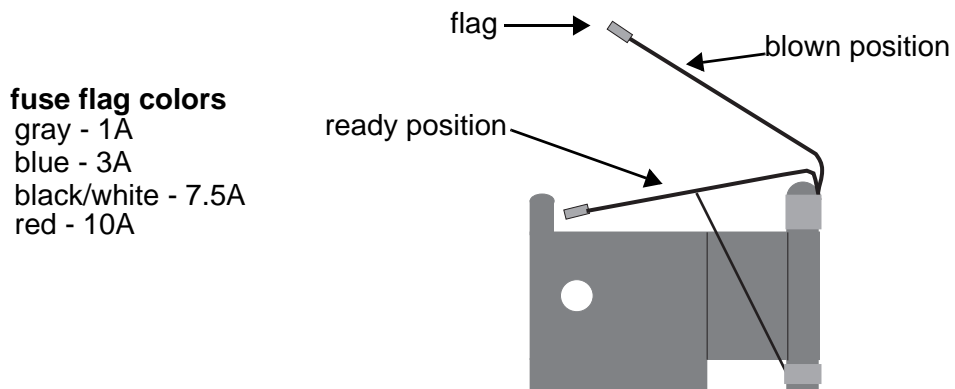
There are six alarm LEDs on the FAP:

- Two power alarm LEDs (A and B)
- A critical alarm LED
- A major alarm LED
- A minor alarm LED
- A fuse alarm

The FAP provides protected distribution of power to the system. Protection is provided by the fuses placed in the GMT fuse holders used in the panel. The FAP contains a fuse fail alarm circuit that operates when one or more of the panel's fuses fail. An LED changes from green to red when a fuse has failed. The LED remains red until the fuse has been replaced.

The fuse and alarm panel uses GMT fuses for individual circuit protection (see Figure 3-2). The EAGLE 5 ISS uses 3A and 1A fuses, depending on the application. When a fuse fails due to an overload condition, a small colored flag on the fuse shows the position of the fuse that has failed. The flag is gray on 1A fuses, blue on 3A fuses, black/white on 7.5A fuses, and red on 10A fuses.

Figure 3-2. GMT Fuse



The panel contains two separate circuits, A and B. Current flows from the input terminals to the fuse bus. When a fuse is installed in a fuse holder, the circuit is completed to the output connector. The Fuse Fail Alarm LED on the front panel indicates the condition of the panel. Green is indicated if power is applied to the panel and there are no failed fuses. The green LED changes to red when a fuse fails. An unlit LED indicates a failed LED or no power to the fuse and alarm panel.

The fuse and alarm panel is also equipped with frame alarm LEDs that display the critical, major, and minor alarms generated by the EAGLE 5 ISS system.

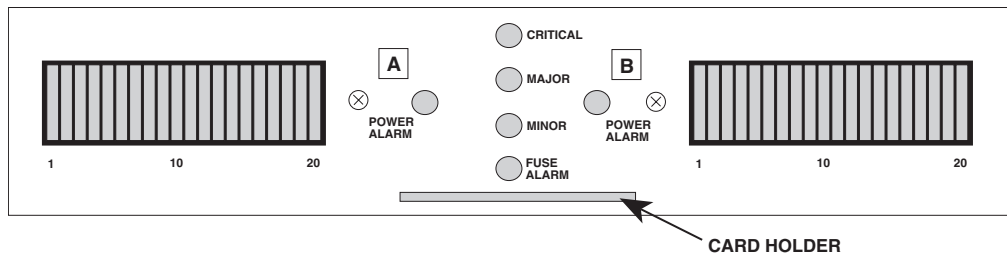
The Fuse and alarm panels have the A and B buses connected through diodes to allow one bus to pick up the entire load when the other bus loses power.

Table 3-1 and Table 3-2 describe the front panel configuration of the fuse and alarm panels.

Table 3-1. Fuse and Alarm Panel Front Items (870-0243-xx)

Fuse Panel Item	Description
Fuse Positions	2 groups of 20 GMT fuses
Card Holder	slide-card holder with 2 designation cards for 20 fuse positions each
Fuse Alarm	LED indicator for fuse fail alarm
Critical Alarm	LED indicator for critical alarm
Major Alarm	LED indicator for major alarm
Minor Alarm	LED indicator for minor alarm
Power Alarm	LED indicator for lose of power on either A bus or B bus

Figure 3-3. Fuse and Alarm Panel Front Layout (870-0243-xx)

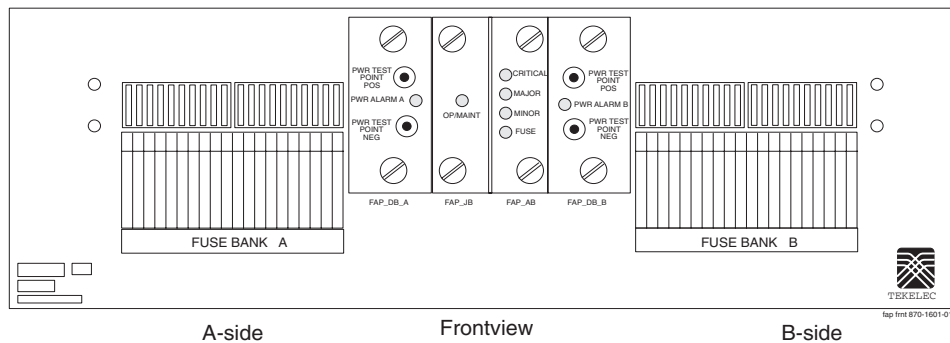


Corrective Maintenance

Table 3-2. Fuse and Alarm Panel Front Items (870-1606-xx/870-2320-xx)

Fuse Panel Item	Description
Fuse Positions	Two groups of 20 GMT fuses
PWR ALARM	LED indicator for A or B diode board input power Green - input power applied Red - no input power to board
OP/MAINT	LED indicator for mode of operation Green - normal Red - maintenance
FUSE	LED indicator for fuse fail alarm Green - normal Red - blown fuse
CRITICAL	LED indicator for frame critical alarm
MAJOR	LED indicator for frame major alarm
MINOR	LED indicator for frame minor alarm

Figure 3-4. Fuse and Alarm Panel Front Layout (870-1606-xx/870-2320-xx)



Alarms appearing on a terminal screen

Three types of alarms may be displayed on a system terminal screen:

- CRIT - Indicates a critical alarm
- MAJR - Indicates a major alarm
- MINR - Indicates a minor alarm

These appear as three highlighted boxes in the top left corner of a terminal. If an alarm condition exists, it is displayed in one of the highlighted boxes. There is a fourth box next to the three alarm boxes that is not used. To obtain information about the alarm, use the **rept-stat-alm** command at the system terminal, followed by a carriage return.

This command provides all current alarm status. Refer to the *Commands Manual* for more information about the **rept-stat-alm** command.

Alarms on Application Cards

Each application card has LEDs that indicate the condition of the card. Alarm conditions appear on the card if the card has a fault. Refer to the *Installation Manual* for the location and description of the card LEDs.

End Cabinet Alarm Indicators

There are three alarm LEDs on the end cabinet:

- A critical alarm LED
- A major alarm LED
- A minor alarm LED

When an alarm condition is present, one or more of these LEDs illuminate in the signifying the overall system alarm level. Refer to the *Installation Manual* for alarm indicators.

Event/Error Messages

Unsolicited messages are used in the EAGLE 5 ISS for trouble notification and to communicate the status of the system to Operations Services (OS). The EAGLE 5 ISS outputs two types of unsolicited messages.

- Unsolicited Alarm Messages (UAMs) are used to denote a persistent problem with device or object that needs the attention of a craftsman. Some examples are a link failure, a subsystem being out of service, or a card not receiving a system clock.
- Unsolicited Informational Messages (UIMs) are indications of transient events that have occurred. UIM examples include messages that an MSU contains invalid data or failed a gateway screening function.

The location of a card with a fault is displayed with the event/error message. The location is displayed as a card number. Card numbers are used to locate the card in the EAGLE 5 ISS system. Refer to the *Installation Manual* for card locations.

Following is an example of an event/error message displaying the card location:

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0008 ** CARD 1113 OAM Active MASP has become isolated
```

Corrective Maintenance

The card location always follows the word "CARD" in the message. In this example, the card number is **1113**.

IMT Bus States

The states of the IMT bus are combined from the primary state (PST) and secondary state (SST) for each IMT bus and are as follows:

Table 3-3. IMT Bust States

PST	SST	DEFINITION
IS-NR	Active	IMT bus is operating normally.
IS-ANR	Fault	IMT bus has had a failure on at least one but not all cards.
IS-ANR	Manual	IMT bus is inhibited, but some cards have been connected to it.
OOS-MT	Fault	IMT bus has a failure on all cards.
OOS-MT-DSBLD	Manual	IMT bus is inhibited and no cards are connected to it.

The **rept-stat-imt** command is used to report the status of the IMT bus. An example of the output follows:

```
RLGHNCXA03W 00-09-27 16:50:24 EST EAGLE 31.5.0
IMT  PST          SST          AST
A    IS-NR        Active      -----
ALARM STATUS      = No alarms
IMT  PST          SST          AST
B    IS-ANR       Fault       -----
ALARM STATUS      = ** 0108 Major IMT Failure Detected
Command Completed.
```

IMT System Alarm Level Determination

The state of the IMT subsystem is determined from the state of each IMT bus. If both buses are IS-NR active, the IMT subsystem is IS-NR active. If only one IMT bus is manually disabled (IS-ANR manual), the IMT subsystem is IS-ANR manual. Otherwise, the IMT subsystem state is IS-ANR fault.

The alarm level of an IMT bus in the IS-ANR fault state is determined by how many bad card connections it has. The number of bad connections required for a major alarm or a minor alarm are as follows:

- 0 failures = no alarm
- 1-2 failures = minor alarm
- 3 or more = major alarm

The alarm levels on the individual buses combine to give the overall alarm level for the IMT subsystem. Table 3-4 shows the rules that are used to determine the overall alarm level of the system of IMT buses.

Table 3-4. IMT Bus Alarm Levels

Bus A Alarm Level	Bus B Alarm Level	Overall Alarm Level
Normal	Normal	Normal
Normal	Minor	Normal
Minor	Normal	Normal
Normal	Major	Minor
Major	Normal	Minor
Minor	Minor	Major
Minor	Major	Major
Major	Minor	Major
Major	Major	Critical

Unsolicited Alarm Messages (UAM)

The system sends unsolicited alarm messages to the system terminal whenever there is a system fault, whenever a previous fault condition is corrected, when a subsystem, equipment, and/or service is placed in or taken out-of-service. Each message has a trouble code and text associated with the trouble condition. The message reference numbers with associated trouble text are shown in Table 3-5, Table 3-6, Table 3-7, and Table 3-8.

Table 3-5. Critical Alarm Messages

Message Reference Number and Trouble Text
0041 -LSMS bulk load required
0058 - Critical customer trouble detected
0063 - Critical holdover clock trbl detected
0077 - Card temperature is critical lvl:T2
0092 - MDAL not responding
0112 - Major failures detected on both IMTs
0128 - All clocks have failed
0153 - STPLAN not available
0181 - NDC Subsystem is not available
0197 - All high speed clocks have failed

Table 3-5. Critical Alarm Messages (Continued)

Message Reference Number and Trouble Text
0261 - MPS unavailable
0287 - RTDB Table Level 2 FAK Cap Exceeded
0292 - GLS is not available
0308 - Node isolated due to SLK failures
0313 - DPC is prohibited
0319 - REPT-MTPLP-DET: Circ rte det(cong)
0320 - REPT-MTPLP-SUST: Sustained circ rt(cong)
0325 - DPC subsystem is blocked
0326 - DPC subsystem is prohibited
0331 - SCCP is not available
0332 - DPC Subsystem is prohibited and blocked
0334 - DPC Subsystem is Abnormal
0349 - SEAS unavailable
0350 - OAP terminals inhibited
0356 - LSMS is unavailable
0368 - Temp Key(s) have expired
0370 - Critical Platform Failure(s)
0371 - Critical Application Failure(s)
0395 - Local Subsystem is not available
0396 - Local Subsystem is disabled
0424 - LNP Subsystem is not available
0435 - LNP Subsystem is disabled
0437 - System SCCP TPS Capacity Exceeded
0438 - Degraded Mode, Invalid OAM HW config
0442 - RTDB database capacity is 95% full
0453 - Exceeded Service Error Threshold Lvl 2
0455 - EIR Subsystem is not available
0456 - EIR Subsystem is disabled
0468 - All STC Networks Unavailable
0469- All STC Cards Unavailable
0518 - Measurements subsystem unavailable

Table 3-5. Critical Alarm Messages (Continued)

Message Reference Number and Trouble Text
0520 - Frame power usage reached LVL3
0528 - Service is not available
0529 - Service is disabled
0534 - RTX is prohibited
0534 - RTX is prohibited

The Major Alarm message reference numbers with corresponding trouble text are shown in Table 3-6.

Table 3-6. Major Alarm Messages

Message Reference Number and Trouble Text
0001 - Card has reset
0008 - Active MASP has become isolated
0013 - Card is isolated from the system
0018 - Exiting forced simplex mode
0043 - Incorrect feature configuration
0047 - Card type not valid for application
0051 - TSC sync is in simplex mode
0053 - Standby TDM failure
0059 - Major customer trouble detected
0064 - Major holdover clock trouble detected
0078 - Card temperature exceeds nominal lvl:T1
0082 - Alarm in Fuse panel
0084 - IP Connection Unavailable
0088 - Clocks A and B TSCs are out of sync
0099 - Incompatible HW for provisioned slot
0108 - Major IMT failure detected
0111 - Failure on both IMT A and IMT B
0114 - System IP TPS threshold exceeded
0115 - Linkset IP TPS threshold exceeded
0132 - Loading failed: table not found
0133 - Loading failed: data read Error

Table 3-6. Major Alarm Messages (Continued)

Message Reference Number and Trouble Text
0134 - Loading failed: bad checksum returned
0135 - Loading failed: GPL load timeout
0136 - Loading failed: data load timeout
0137 - Loading failed: invalid GPL
0138 - Loading failed: GPL format error
0139 - Loading failed: disk read prep error
0140 - Loading failed: disk read response error
0141 - Loading failed: disk read failed
0152 - LIM(s) have been denied STPLAN service
0162 - 1116-P, 1116-S clocks failed
0164 - 1114-S, 1116-S clocks failed
0166 - 1114-S, 1116-P, 1116-S clocks failed
0169 - 1114-P, 1116-P clocks failed
0170 - 1114-P, 1116-P, 1116-S clocks failed
0171 - 1114-P, 1114-S clocks failed
0172 - 1114-P, 1114-S, 1116-S clocks failed
0173 - 1114-P, 1114-S, 1116-P clocks failed
0179 - NDC Q.3 association is unavailable
0185 - 1116-PHS, 1116-SHS clocks failed
0187 - 1114-SHS, 1116-SHS clocks failed
0189 - 1114-SHS, 1116-PHS,1116-SHS clocks failed
0192 - 1114-PHS, 1116-PHS clocks failed
0193 - 1114-PHS, 1116-PHS,1116-SHS clks failed
0194 - 1114-PHS, 1114-SHS clocks failed
0195 - 1114-PHS, 1114-SHS,1116-SHS clks failed
0196 - 1114-PHS, 1114-SHS,1116-PHS clks failed
0201 - REPT-LKF: remote NE loopback
0202 - REPT-LKF: HWP - too many link interrupts
0203 - REPT-LKF: lost data
0204 - REPT-LKF: XER - ERM threshold exceeded
0205 - REPT-LKF: APF - lvl-2 T1 expd (ready)

Table 3-6. Major Alarm Messages (Continued)

Message Reference Number and Trouble Text
0206 - REPT-LKF: APF - lvl-2 T1 expd (not ready)
0207 - REPT-LKF: APF - lvl-2 T3 expired
0208 - REPT-LKF: APF - lvl-2 T2 expired
0209 - REPT-LKF: APF - failed proving period
0210 - REPT-LKF: OSA - received SIO
0211 - REPT-LKF: OSA - received SIN
0212 - REPT-LKF: OSA - received SIE
0213 - REPT-LKF: OSA - received SIOS
0214 - REPT-LKF: ABN - rcvd 2 of 3 invalid BSN
0215 - REPT-LKF: ABN - rcvd 2 of 3 invalid FIB
0216 - REPT-LKF: remote congestion timeout
0217 - REPT-LKF: XDA - excess acknowledge delay
0218 - REPT-LKF: COO - rcvd changeover order
0219 -REPT-LKF: false congestion restart
0220 - REPT-LKF: MTP link restart delayed
0221 - REPT-LKF: X25 link unavailable
0222 - REPT-LKF: remote FE loopback
0224 - REPT-LKF: link test failed
0230 - REPT-LKF: local blocked - thermal
0232 - REPT-LKF: remote blocked
0233 - REPT-LINK-MANUAV: local blocked
0234 - REPT-LKF: RMI remote inhibited
0235 - REPT-LINK-MGTINH: local inhibited
0236 - REPT-LKF: not aligned
0237 - REPT-LFK: LM Timer NO-CREDIT expired
0238 - REPT-LKF: XDA-Timer NO-RESPONSE expired
0239 - REPT-LKF: MBL-local processor outage
0240 - REPT-LKF: rcvd SSCOP END-proc outage
0241 - REPT-LKF: rcvd SSCOP END-out of service
0242 - REPT-LKF: rcvd SSCOP END-protocol error
0243 - REPT-LKF:rcvd SSCOP END-mgmnt initiated

Table 3-6. Major Alarm Messages (Continued)

Message Reference Number and Trouble Text
0244 - REPT-LKF: FAC - DS1 LOS failure
0245 - REPT-LKF: FAC - DS1 LOF failure
0246 - REPT-LKF: FAC - DS1 LCD failure
0247 - REPT-LKF: XER - ISERM threshold exceeded
0250 - MPS available
0276 - Insufficient HW for IP7 provisioning
0277 - AS Unavailable
0283 - LNP Ported LRNs approaching Feat. Capacity
0285 - LNP Ported NPAs approaching Feat. Capacity
0288 - RTDB Table Level 2 FAK Cap Exceeded
0291 - GLS is at minimum service limit
0297 - Incorrect port configuration
0300 -TVG Grant Failure
0318 - REPT-LKSTO: Link set prohibited
0330 - System SCCP TPS Threshold exceeded
0336 - LIM(s) have been denied SCCP service
0338 - X-LIST space full-entry(s) discarded
0341 - OAP Unavailable
0342 - SEAS UAL unavailable
0343 - SEAS X.25 Link unavailable
0345 - All SEAS UAL sessions unavailable
0348 - SEAS is at min service limit
0354 - One OAP terminal unavailable
0358 - LSMS Q.3 association unavailable
0360 - EMS Agent unavailable
0362 - LSMS is at min. service limit
0367 - Temp Key(s) expiring soon
0369- REPT-T1F:FAC-T1 unavailable
0372 - Major Platform Failure(s)
0373 - Major Application Failure(s)
0376- REPT-T1F:FAC-T1 LOS failure

Table 3-6. Major Alarm Messages (Continued)

Message Reference Number and Trouble Text
0377- REPT-T1F:FAC-T1 LOF failure
0378- REPT-T1F:FAC-T1 Remote Alarm
0379- REPT-T1F:FAC-T1 Alarm
0381- REPT-E1F:FAC-E1 LOS failure
0382- REPT-E1F:FAC-E1 LOF failure
0383- REPT-E1F:FAC-E1 AIS detected
0384- REPT-E1F:FAC-E1 Far End Failure
0385- REPT-E1F:FAC-E1 10E-3 BER failed
0387- REPT-E1F:FAC-E1 unavailable
0390 - Illegal Address Error
0391 - Card not responding Error
0392 - OA&M IP Security feature is OFF
0403 - 1114 E1/T1 clock requires TDM-GTI
0404 - 1116 E1/T1 clock requires TDM-GTI
0405 - 1114, 1116 E1/T1 clock requires TDM-GTI
0406 - 1114 Clock selection mismatch
0407 - 1116 Clock selection mismatch
0408 - 1114, 1116 Clock selection mismatch
0422 - Insufficient extended memory
0436 - LNP ACG node overload
0441 - Incorrect MBD - CPU
0443 -RTDB database corrupted
0446 - RTDB database capacity is 80% full
0449 - RTDB resynchronization in progress
0451 - RTDB reload required
0455 - EIR Subsystem is not available
0466- STC Network Unavailable
0473 - EROUTE System Capacity Exceeded
0482 - Card(s) have been denied EROUTE service
0514 - Standby MASP inhibited
0517 - Degraded Mode - multiple cards failed

Table 3-6. Major Alarm Messages (Continued)

Message Reference Number and Trouble Text
0521 - Frame power usage reached LVL2
0537 - Ethernet error threshold exceeded
0539 - Ethernet Interface Down
0901 - Card DB load timeout, check GLS card
0903 - IP Link A is down
0905 - IP Link B is down
0908 - HW cannot support purchased TPS rate
0911 - Dynamic database is inconsistent

The Minor Alarm message reference numbers and associated trouble text are shown in Table 3-7.

Table 3-7. Minor Alarm Messages

Message Reference Number and Trouble Text
0002 - Card is not running approved GPL
0004 - Card is running non-activated GPL
0021 - Clock A for card failed, B normal
0022 - Clock B for card failed, A normal
0023 - Clocks A and B for card failed
0034 - Card database is inconsistent
0035 - Card database is corrupted
0037 - Card backup database is inconsistent
0038 - Card backup database is corrupted
0040 - GPL is corrupted
0044 - Real time clock battery low
0048 - Terminal failed
0055 - Persistent device state tbl corrupt
0056 - Persistent device state tbl diff version
0060 - Minor customer trouble detected
0065 - Minor holdover clock trouble detected
0086 - IP Connection Congested
0102 - Motherboard BIP invalid

Table 3-7. Minor Alarm Messages (Continued)

Message Reference Number and Trouble Text
0107 - Minor IMT failure detected
0110 - Failure detected on one IMT bus
0116 - Link expected IP TPS threshold exceeded
0143 - System release GPL(s) not approved
0144 - System release version unknown
0145 - HS Clock A for card failed, B normal
0146 - HS Clock B for card failed, A normal
0147 - High Speed Clocks A and B for card failed
0155 - STPLAN connection unavailable
0158 - X25 no logical channels available
0160 - 1116-S clock failed
0161 - 1116-P clock failed
0163 - 1114-S clock failed
0165 - 1114-S, 1116-P clocks failed
0167 - 1114-P clock failed
0168 - 1114-P, 1116-S clocks failed
0174 - %full threshold reached -upload required
0175 - LOGBUFROVFL-SECULOG - upload required
0176 - Stdbby security log - upload required
0183 - 1116-SHS clock failed
0184 - 1116-PHS clock failed
0186 - 1114-SHS clock failed
0188 - 1114-SHS, 1116-PHS clocks failed
0190 - 1114-PHS clock failed
0191 - 1114-PHS, 1116-SHS clocks failed
0279 - AS Restricted
0298 - Card not using config. SCTP csum method
0302 - Cooling fan failure
0304 - REPT-NMTSK-DSCD: SNM Discard Onset
0306 - SNM Overload Onset
0312 - DPC is restricted

Table 3-7. Minor Alarm Messages (Continued)

Message Reference Number and Trouble Text
0321 - X-LIST occupancy threshold exceeded
0344 - SEAS PVC unavailable
0346 - SEAS UAL session unavailable
0363 - OAP filesystem full
0364 - Configuration data checksum mismatch
0374 - Minor Platform Failure(s)
0375 - Minor Application Failure(s)
0398 - Local Subsystem normal,card(s) abnormal
0427 - LNP database corrupted
0428 - Backup LNP database corrupted
0429 - LNP database is inconsistent
0430 - Backup LNP database is inconsistent
0444 - RTDB database is inconsistent
0448 - RTDB database incoherent
0457 - EIR Subsystem normal,card(s) abnormal
0472 - EROUTE System Threshold Exceeded
0475 - NTP Time Unavailable
0477 - Congestion: Copy Function De-activated
0480 - Timestamp Invalid
0516 - Degraded Mode - 1 card failed
0522 - Frame power usage reached LVL1
0527 - Service abnormal
0531 - Insufficient HW Copy Function Inhibited
0533 - RTX is restricted
0535 - IP Connection Restricted
0536 - IP Connection Excess Retransmits

The Informational Alarm message reference numbers and associated trouble text are shown in Table 3-8.

Table 3-8. Information Alarm Messages

Message Reference Number and Associated Text
0003 - Alarm cleared for GPL
0005 - Alarm cleared running non-activated GPL
0009 - MASP became active
0010 - MASP became standby
0014 - Card is present
0024 - Clock A for card normal
0025 - Clock B for card normal
0026 - Clocks A and B for card normal
0033 - Card database has been corrected
0036 - Card backup database has been corrected
0039 - GPL has been corrected
0042 - LSMS bulk load complete
0045 - Real time clock battery restored
0046 - Terminal enabled
0052 - TSC sync feature is available
0054 - Standby TDM failure cleared
0057 - Persistent device state tbl corrected
0061 - Customer trouble detected
0062 - Customer trouble cleared
0066 - Holdover clock trouble cleared
0079 - Card temperature again at nominal levels
0083 - Fuse Panel alarm has cleared
0085 - IP connection available
0087 - IP Connection manually removed
0089 - Clocks A and B TSCs are resynchronized
0093 - MDAL alarm cleared
0096 - Card has been reloaded
0097 - IMT allowed
0098 - IMT inhibited
0103 - Motherboard BIP valid
0106 - IMT Bus alarm cleared
0109 - All IMT System level alarms cleared

Table 3-8. Information Alarm Messages (Continued)

Message Reference Number and Associated Text
0113 - Clock alarm(s) cleared
0117 - System IP TPS normal
0118 - Linkset IP TPS normal
0119 - Link IP TPS normal
0130 - Card successfully loaded with data
0142 - System release alarm cleared
0148 - High Speed Clock A for card normal
0149 - High Speed Clock B for card normal
0150 - STPLAN is available
0151 - STPLAN capacity normal,card(s) abnormal
0154 - STPLAN is removed
0156 - STPLAN connection available
0157 - X25 logical channels available
0159 - High Speed Clocks A and B for card normal
0177 - Security log exception cleared
0178 - Security log failed
0180 - NDC Q.3 association is available
0182 - NDC Subsystem is available
0198 - High speed clock alarm(s) cleared
0199 - OA&M IP Security feature disabled
0200 - RCVRY-LKF: link available
0223 - REPT-LKF: remote NE loopback cleared
0250 - MPS available
0264 - REPT-LINK-CGST: congestion level 0 to 1
0265 - REPT-LINK-CGST: congestion level 1 to 2
0266 - REPT-LINK-CGST: congestion level 2 to 3
0267 - RCVRY-LINK-CGST:congestion level 3 to 2
0268 - RCVRY-LINK-CGST:congestion level 2 to 1
0269 - RCVRY-LINK-CGST: congestion has cleared
0270 - REPT-LINK-CGST: discard level 0 to 1
0271 - REPT-LINK-CGST: discard level 1 to 2
0272 - REPT-LINK-CGST: discard level 2 to 3
0273 - RCVRY-LINK-CGST: discard level 3 to 2

Table 3-8. Information Alarm Messages (Continued)

Message Reference Number and Associated Text
0274 - RCVRY-LINK-CGST: discard level 2 to 1
0275 - RCVRY-LINK-CGST: discard has cleared
0278- AS Available
0280 - AS Unrestricted
0284 - LNP Ported LRNs Capacity Normal
0286 - LNP Ported NPAs Capacity Normal
0289 - RTDB Table FAK Capacity Normal
0290 - GLS is available
0293 - GLS have been removed from the system
0294 - REPT-ALMINH: alarm output PERM inhibited
0295 - REPT-ALMINH: alarm output enabled
0296 - REPT-ALMINH: alarm output TEMP inhibited
0299 - Config. SCTP csum method alarm cleared
0301 -TVG Grant Recovery
0303 - Cooling fan normal
0305 - RECVY-NMTSK-DSCD: SNM Discard Abated
0307 - SNM Overload Abated
0309 - Node is no longer isolated
0311 - DPC is allowed
0314 - Route is allowed
0315 - Route is restricted
0316 - Route is prohibited
0317 - RCVRY-LKSTO: Link set allowed
0322 - X-LIST occupancy below threshold
0324 - DPC subsystem is allowed
0327 - DPC subsystem has been deleted
0328 - SCCP is available
0329 - SCCP capacity normal, card(s) abnormal
0333 - DPC Subsystem is Normal
0335 - SCCP is removed
0337 - DPC - SS status changed
0339 - X-LIST space full condition abated
0340 - RCVRY-MTPLP-RST: Circ rte status cleared

Table 3-8. Information Alarm Messages (Continued)

Message Reference Number and Associated Text
0347 - SEAS X.25 Link is available
0351 - SEAS is available
0352 - SEAS is removed
0353 - OAP is available
0355 - LSMS is available
0357 - All OAP terminals are removed
0359 - LSMS Q.3 association available
0361 - EMS Agent available
0365 - Configuration data checksum alarm cleared
0366 - Temp Key(s) expiration alarm cleared
0380 - RCVRY-T1F:FAC-T1 available
0386 - RCVRY-E1F:FAC-E1 available
0388 - Illegal Address Error has Cleared
0389 - Card responding normally
0393 - OA&M IP Security feature is ON
0394 - Local Subsystem is available
0397 - Local Subsystem is removed
0399 - RCVRY-LKSTO:Alarm clr'd by deleting SLK
0400 - Alarm cleared by deleting card
0401 - Alarm cleared by deleting SLK
0402 - Alarm cleared by deleting route
0409 - Clock configuration corrected
0423 - Card reload attempted
0425 - LNP Subsystem normal, card(s) abnormal
0426 - LNP Subsystem is available
0431 - LNP database has been corrected
0432 - Backup LNP database has been corrected
0434 - LNP Subsystem is removed
0439 - Exiting Degraded Mode
0445 - RTDB database has been corrected
0447 - RTDB database capacity alarm cleared
0455 - EIR Subsystem is not available
0458 - EIR Subsystem is available

Table 3-8. Information Alarm Messages (Continued)

Message Reference Number and Associated Text
0459 - EIR Subsystem is removed
0467- STC Network Available
0470 - EROUTE is Removed
0471- EROUTE System is Available
0474 - EROUTE capacity normal, card(s) abnormal
0476- NTP Time Available
0478 - Copy Function Activated
0479 - Link not Monitored
0481 - Timestamp Valid
0500 - Alarm being cleared for this device
0515 - Standby MASP allowed
0519 - Measurements subsystem available
0523 - Frame power usage normal
0524 - REPT-ALMINH: alarm output TIMED inhibit
0525 - Timed alm inh rdy to expire
0526 - Service is available
0530 - Service is removed
0532 - RTX is allowed
0538 - Ethernet error threshold cleared
0540 - Ethernet Interface Up
0902 - Card DB is stable
0904 - IP Link A is up
0906 - IP Link B is up
0907 - HW limiting TPS rate alarm cleared
0912 - Dynamic database is now consistent

Unsolicited Information Messages

The system sends unsolicited information messages to the system terminal whenever there is a non-service affecting condition. This includes MSUs with invalid information, conversation failures, and/or a failed gateway screening function. Each message has a numbered code and informational text associated with the condition.

NOTE: UIMs will be discarded if received within 250 ms of the previous UIM. This is a design constraint to prevent the OAM from being flooded by UIMs.

The message reference numbers and associated text are shown in Table 3-9.

Table 3-9. Unsolicited Information Messages

Message Reference Number and Associated Text
1000 - MTP rcvd UPU - user part is not SCCP
1001 - MTP rcvd Transfer Controlled (TFC)
1002 - MTP rcvd invalid TFC - status 0
1003 - MTP rcvd invalid H0/H1 code
1004 - MTP rcvd unknown DPC
1005 - GWS rcvd OPC that is not allowed
1006 - GWS rcvd DPC that is not allowed
1007 - GWS rcvd OPC that is blocked
1008 - GWS rcvd DPC that is blocked
1009 - GWS rcvd SIO that is not allowed
1010 - GWS rcvd a priority that is not allowed
1011 - GWS rcvd TFC, AFTPC not in routing tbl
1012 - GWS rcvd Clg Party that is not allowed
1013 - GWS rcvd Cld Party that is not allowed
1014 - GWS rcvd Translation Type not allowed
1015 - GWS rcvd SCMG with not allowed AFTPC
1016 - MTP Adj PC not in routing table
1017 - MTP Message Received for Network 255
1018 - REPT-MTPERR: MTP rcvd invalid SIO
1019 - SCCP rcvd invalid UDTS/XUDTS msg
1020 - SCCP rcvd invalid XUDT msg
1021 - SCCP rcvd invalid XUDTS msg
1022 - System Meas. limit exceeded for LSONISMT
1023 - SCCP rcvd unknown msg type
1024 - SCCP rcvd inv msg length
1025 - SCCP rcvd inv msg class
1026 - System Meas Limit exceeded for LSORIGNI
1027 - System Meas Limit exceeded for LSDESTNI
1028 - System Meas. Limit exceeded for ORIGNI/NINC

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1029 - SCCP rcvd inv Cld Party - bad GT ind
1030 - Inh EIR SS request already outstanding
1031 - Failure Inhibiting EIR SS
1032 - Set ETS Mismatch
1033 - SCCP rcvd inv Cld Party - bad network
1034 - SCCP rcvd inv Cld Party - no SSN
1035 - SCCP rsp did not route - invalid GTI
1036 - SCCP rsp did not route - invalid TT
1037 - SCCP rsp did not route - bad Xlation
1038 - SCCP rsp did not route -SSP not True PC
1039 - SCCP rsp did not route - bad Selectors
1040 - ITU <-> ANSI translation not supported
1041 - SCCP did not route -no SSN in msg or DB
1042 - SCCP rcvd inv GT - bad Translation Type
1043 - SCCP did not route - bad translation
1044 - SCCP did not route - DPC OOS
1045 - SCCP did not route - DPC congested
1046 - SCCP did not route - DPC not in MAP tbl
1047 - SCCP did not route - SS OOS
1048 - SCCP did not route - SS congested
1049 - SCCP did not route - SS not in MAP tbl
1050 - SCCP-CNV: Unable to convert ANSI CDPA GT
1051 - SCCP-CNV: Unable to convert ANSI CGPA GT
1052 - SCCP-CNV: Unable to convert ITU CDPA GT
1053 - SCCP-CNV: Unable to convert ITU CGPA GT
1054 - SCCP rcvd inv LSS - bad SSN
1055 - SCCP rcvd inv SCMG - bad AFTPC
1056 - SCCP rcvd inv SCMG - bad subsystem
1057 - SCCP rcvd inv SCMG - bad length
1058 - SCCP rcvd inv SCMG - bad msg type
1059 - Telnet terminal connection disconnected
1060 - Map Screening cannot generate ATIER
1061 - Meas sync not allowed from old version

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1062 - String Data Dump
1063 - SCCP screen set is too large
1064 - GWS rcvd TFP, AFTPC not in routing tbl
1065 - GWS rcvd TFR, AFTPC not in routing tbl
1066 - GWS rcvd TFA, AFTPC not in routing tbl
1067 - GWS rcvd UPU, AFTPC not in routing tbl
1068 - GWS rcvd RSP, AFTPC not in routing tbl
1069 - GWS rcvd RSR, AFTPC not in routing table
1070 - SLTC failure: invalid Point Code (OPC)
1071 - SLTC failure: invalid SLC
1072 - SLTC failure: no response
1073 - SLTC failure: bad data pattern
1074 - SCCP rcvd inv SCMG - invalid SOR
1075 - MTP: link bypassed SLT phase
1076 - SLTC failure: invalid Point Code (DPC)
1077 - SLTC failure: failed link
1078 - SLTC success: manual test passed
1079 - SLTC aborted: unable to perform test
1080 - disk measurement status unreadable
1081 - MTP: Changeback T5 timeout
1082 - Amem single bit error report
1083 - REPT COND: system alive
1084 - GWS MSU discarded by redirect function
1085 - GWS MSU too large to be redirected
1086 - LFS test terminated with OAM switchover
1087 - MTP RSTRT rcvd unexpected user traffic
1088 - REPT-MTP-RSTRT MTP Restart started
1089 - RCVRY-MTP-RSTRT MTP Restart completed
1090 - ITU GWY:CPC conversion failure
1091 - ITU GWY:OPC conversion failure
1092 - ITU GWY:HOH1 conversion failure
1093 - ITU GWY:rcvd msg type cannot convert
1094 - ITU GWY:Invalid ISUP msg structure

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1095 - ITU GWY:GRS buffer full
1096 - ITU GWY:RSC buffer full
1097 - ITU GWY:CGB buffer full
1098 - Unexpected disk access timeout
1099 - String Data Dump
1100 - GWS rcvd H0/H1 that is not allowed
1102 - Invalid Length for Map IMEI Parameter
1103 - LSS:No Map IMEI Parameter present
1104 - IP Connection Failed
1105 - REPT EVT:IMT GPL reloading
1106 - REPT COND:IMT GPL reloading
1107 - SCCP XUDT (S) msg: Hop Counter violation
1108 - SCCP XUDT (S) msg: inv opt portion len
1109 - SCCP XUDT(S) msg: inv segmentation parm
1110 - GWS rcvd AFTPC that is not allowed
1111 - GWS rcvd TCA, AFTPC not in routing tbl
1112 - GWS rcvd TCR, AFTPC not in routing tbl
1113 - GWS rcvd TCP, AFTPC not in routing tbl
1114 - Database BACKUP started
1115 - Database RESTORE started
1116 - Database action ended - OK
1117 - Database action ended - FAIL
1118 - Audit of LNP backup database completed
1119 - LNP database audit - internal error
1120 - TRBL Queue is full:elements overwritten
1121 - LNP rcvd query from unknown CGPA PC
1122 - LNP rcvd query with undefined TT/SERV
1123 - LNP rcvd query with Message Relay TT
1124 - LNP Database IMPORT started
1125 - GWS rcvd CDPA that could not be RDCTd
1126 - GWS rcvd CGPA that could not be RDCTd
1127 - GWS rcvd AFTPC that could not be RDCTd
1128 - GWS rcvd TT that could not be RDCTd

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1129 - Ported subs SMSC matches Home SMSC Addr
1130 - LOCREQ rcvd - IS412GSM not provisioned
1131 - Invalid digits in IS41 MAP Digits parm
1132 - SLAN DLK ping test completed
1133 - GX25 outbound data exceeds packet size
1134 - GX25 route not found
1135 - GX25 route not available
1136 - GX25 route already connected
1137 - GX25 incorrect X25 address
1138 - GX25 unsupported packet type received
1139 - GX25 unsupported MSU type received
1140 - GX25 DPC not defined
1141 - GX25 unrecognized X25 calling address
1142 - GX25 unrecognized X25 called address
1143 - GX25 cannot make connection
1144 - GX25 logical channel cleared
1145 - GX25 unexpected restart received
1146 - REPT-XLST-TIMO: X-LIST entry expired
1147 - MTP Invalid TFA received
1148 - MTP Invalid TFR received
1149 - SLK Level-3 T19 timer expired
1150 - SLK Inhibit Denied
1151 - SLK Inhibit Response Timeout
1152 - SLK Uninhibit Denied
1153 - SLK Uninhibit Response Timeout
1154 - MSU reception threshold exceeded
1155 - GWS MSU discard threshold exceeded
1156 - ISCC loopback success
1157 - ISCC loopback failed
1158 - ISCC loopback aborted
1159 - ISCC loopback in progress
1160 - GWS rcvd ISUP that is not allowed
1161 - GWS rcvd nonSNM DESTFLD screening msg

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1162 - GWS rcvd nonSCCP CGPA/CDPA screen msg
1163 - GWS rcvd invalid GTI in TT screening
1164 - Inh LNP SS request already outstanding
1165 - Failure Inhibiting LNP SS
1166 - ACG Node Overload Level Change
1167 - LNP database audit is disabled
1168 - Audit of LNP database completed
1169 - SCCP rcvd inv TCAP portion
1170 - Loopback prevented
1171 - Loopback invalid
1172 -REPT-OVSZMSG: MTP MSU too large to rte
1173 -REPT-OVSZMSG: SCCP MSU too large to rte
1174 - Inh Local SS request alrdy outstanding
1175 - Failure Inhibiting Local SS
1176 - LNP Subscription ref's DPC w/ 0 routes
1177 - Cnvrsn Discard: SCCP MSU too large
1178 - Conversion Discard: Invalid SCCP msg type
1179 - Cnvrsn Discard: CGPA PC alias undefined
1180 - Conversion Discard: Aft. PC alias undefined
1181 - Conversion Discard: Invalid SCMG msg type
1182 - Cnvrsn Discard - Invalid TCAP element
1183 - Cnvrsn Discard - Invalid TCAP elem't len
1184 - Cnvrsn Discard: Invalid SCCP elem't len
1185 - GTI input clock anomalies detected
1189 - SCCP did not Route - DPC not in RTE Table
1190 - SCCP rcvd inv Clg Party - bad GT ind
1191 - SCCP rcvd inv Clg Party - bad Selectors
1192 - SCCP translation found: XLAT=UDTS
1193 - SCCP translation found: XLAT=DISC
1195 - SCCP did not route - DPC/SS not in mapset
1196 - IP Connection Congestion Timeout
1197 - IP Connection refused
1198 - IP Connection, Cannot resolve RHOST

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1199 - LNP DTH Measurements Discarded for DPC
1200 - INW ALT card as first to be preloaded
1201 - INW MAIN card as last to be reset
1202 - INW Asserted DDL inhibition
1203 - INW Card reset command issued
1204 - INW Waiting for card loading validation
1205 - INW Detected card loaded
1206 - INW Detected card reset or removed
1207 - INW Allowed card to skip DDL inhibited
1208 - INW Removed DDL inhibition
1209 - INW Need to reset/remove/inhibit card
1210 - INW Card failed to reset
1211 - INW Failed to assert DDL inhibition
1212 - INW Failed to remove DDL inhibition
1213- INW Card failed to DDL crossload
1214 - INW Allowed card to DDL crossload
1215 - GWS rcvd CDPA that could not be CNCFd
1216 - GWS rcvd CGPA that could not be CNCFd
1217 - GWS rcvd AFTPC that could not be CNCFd
1218 - GWS rcvd TT that could not be CNCFd
1219 - SCCP rcvd inv Cld Party - bad GT ind
1220 - SCCP rcvd inv Cld Party - bad network
1221 - SCCP rcvd inv Cld Party - no SSN
1222 - SCCP rcvd inv GT - invalid selectors
1223 - SCCP did not route - bad translation
1224 - SCCP rcvd inv LSS - bad SSN
1225 - SCCP did not route - DPC OOS
1226 - SCCP did not route - DPC congested
1227 - SCCP did not route - DPC not in MAP tbl
1228 - SCCP did not route - SS OOS
1229 - SCCP did not route - SS congested
1230 - SCCP did not route - SS not in MAP tbl
1231 - SCCP Encode Failure

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1232 - SCCP Encode Failure
1233 - MTP Invalid ITU TFR RCVD
1234 - LNP Day Meas. Discarded for NPANXX
1238 - Full LNP database reload initiated
1239 - LNP updates inhibited:loading mode stability
1240 - LNP updates allowed:loading mode stability
1241 - LNP Incremental Loading
1242 - Conv to intl num - Dflt CC not found
1243 - Conv to intl num - Dflt NC not found
1244 - Conv to intl num - Dflt MCC not found
1245 - Conv to intl num - Dflt MNC not found
1246 - Invalid length of conditioned digits
1247 - Conversion of MGT to IMSI not possible
1248 - GSM MAP Screening rcvd unknown originator
1249 - SCCP rcvd GSM MAP Opcode w/forbidden param
1250 - SCCP rcvd undefined MAP Op-Code
1251 - Measurements data copy failure
1252 - Report generation failure
1253 - Report transfer failure FTP Server
1254 - Scheduled transfer failure
1256 - MNP Circular Route Detected
1257 - DB restore has cleared and Disabled PDS
1258 - Map Screening cannot Forward MSU
1259 - Map Screening cannot Duplicate MSU
1260 - LSS: Unsupported TCAP msg type
1261 - LSS: Invalid len in transaction portion
1262 - LSS: Invalid len in dialogue portion
1263 - LSS: Invalid len in component portion
1264 - LSS: No originating transaction ID
1265 - LSS: Invalid transaction ID len
1266 - LSS: Destination transaction ID in Begin
1267 - LSS: No External element
1268 - LSS: No External Object Identifier

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1269 - LSS: Not Structured Dialogue
1270 - LSS: No External ASN1-Type
1271 - LSS: No Dialogue Request
1272 - LSS: No Application Context Name
1273 - LSS: No ACN Object Identifier
1274 - LSS: No component portion
1275 - LSS: No Invoke component
1276 - LSS: No Invoke ID
1277 - LSS: No operation code
1278 - LSS: No parameter (set/sequence)
1279 - LSS: Unsupported network type
1280 - LSS: Unsupported SCCP msg type
1281 - LSS: No SCCP CDPA SSN
1282 - LSS: Unsupported SCCP CDPA GTI
1283 - LSS: Unsupported SCCP CGPA RI
1284 - LSS: Unknown SSP PC
1285 - LSS: No SCCP CGPA SSN
1286 - LSS: Invalid INAP CalledPartyNumber len
1287 - LSS: Unsupported ACN Object ID len
1288 - LSS: Unsupported operation code
1289 - LSS: No parameter sequence
1290 - LSS: No INAP ServiceKey parameter
1291 - LSS: No INAP CalledPartyNumber param
1292 - LSS: Parameters out of sequence
1293 - LSS: Invalid num of digits in INAP CdPN
1294 - Invalid digits in MAP MSISDN parameter
1295 - Translation PC is EAGLE 5 ISS's
1296 - Translation PC type is ANSI
1297 - Invalid length of prefix/suffix digits
1298 - Updates inhibited: loading stability
1299 - Updates allowed: loading stability
1300 - REPT EVT: Incremental Loading
1301 - SECMTPMATE - rcvd mate PC on non C-link

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1302 - SECMTPSID - rcvd MSU with OPC = SID
1303 - SECMTPSNM - no rte to OPC/AFTPC
1304 - SECSCCPSCMG - no rte to AFTPC
1305 - MTP rcvd UPU - User SCCP, Cause invalid
1306 - GSMOPTS: EIR Global Response is ON
1307 - GSMOPTS: EIR Global Response is OFF
1310 - System Meas. Limit exceeded for LRN
1311 - System Meas. Limit exceeded for NPANXX
1320 - FPT value unprovisioned for frame
1321 - Eagle RTDB Birthdate Mismatch
1322 - Eagle RTDB Levels Invalid
1323 - Eagle/Elap TN Quantity Mismatch
1324 - Eagle/Elap NPANXX Quantity Mismatch
1325 - Eagle/Elap LRN Quantity Mismatch
1326 - Eagle RTDB Depth Alert
1330 - Mismatched UA Routing Context
1331 - IP Route Table Entry Conflict
1332 - Invalid Initial M2PA FSN Received
1333 - IPGW RCVD MSG DISCARDED
1334 - IPGW TX MSG DISCARDED
1335 - Table Information
1336 - IPGW UA ERROR MSG RECEIVED
1337 - UA HEARTBEAT TIMEOUT
1338 - SCCP did not route - no PC in CgPA
1339 - SCCP did not route - no dflt Clg PC Set
1340 - REPT COND: TRBL resynch required
1345 - CRD Auto-Clear Sent to All MTP Cards
1349 - MSU invalid size – discarded
1355 - Card Integ Chk: MSU cksum err
1490 - Telnet terminal connection successful
1491 - Terminal enabled
1492 -Terminal failed
1493 -SSH Host Keys Regenerated

Table 3-9. Unsolicited Information Messages (Continued)

Message Reference Number and Associated Text
1494 -SSH Host Keys Loaded
1495 - Awaiting LSMS bulk download
1496 - LSMS bulk download in progress
1497 - LSMS bulk download complete
1498 - LSMS bulk download cancelled at LSMS

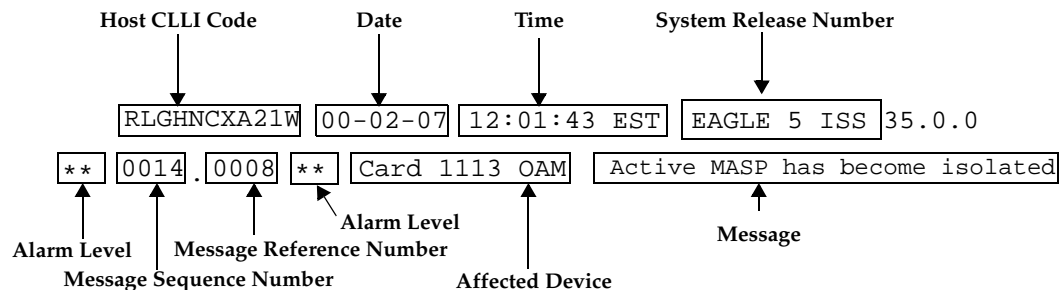
Output Messages

The EAGLE 5 ISS generates output messages in response to command input or fault conditions in the EAGLE 5 ISS or in the network. The format for these messages is generally uniform. Some messages include additional data.

Network messages provide the text description of the event, and on the lines below the text line, any additional information.

The following example shows the general format of an output message.

Figure 3-5. Output Message Format



The fields in an output message (shown in the figure above) are described next:

- Host CLI code - a maximum of one alpha character and ten alphanumeric characters. The CLI code uniquely identifies the system in terms of its physical location. The CLI code must be unique among all elements in the system.

The CLI code consists of the following:

- City = 4 characters
- State = 2 characters
- Building = 2 characters
- Equipment type = 3 characters

- **Date** - year-month-day
- **Time** - hour: minutes: second time zone
- **System Release Number** - contains a system identifier and the version ID number. The system identifier, can be **EAGLE** or **EAGLE5** depending on the product key enabled on the system. The version ID number has the software release specific GPL set that is expected to be installed on the system as approved loads. The format of the version ID number is in the form of **maj.min.maint**, defined as follows:
 - **maj** - the major release ID
 - **min** - the minor release ID
 - **maint** - the maintenance release ID.
- **Alarm Level** - a one or two character indicator of the alarm level, defined as follows:
 - ***C** = Critical Alarm
 - ****** = Major Alarm
 - ***** = Minor Alarm
 - **blank** = No Alarm.
- **Message Sequence Number** - This number is an index for all output messages. The number increments sequentially for every message. The output messages originating from the card in location 1113 has a range from 0001 through 4999. The range for location 1115 is 5000 through 9999.
- **Message Reference Number** - Messages that are associated with a specific action are numbered for reference. These messages are defined in this chapter, along with a corrective action.
- **Affected Device** - The device that caused the message to be generated. This generally describes the card type.

Network messages with additional data display the additional lines below the text string and message reference number (MRN). See individual messages for examples of output.

All network messages are non-alarm and are used to notify the user of network events. There may or may not be a procedure associated with these messages.

UAM/UIM Changes

The following tables detail the changes made to the UAM and UIM messages in recent releases. The tables list by release the UAM/UIM message number and the old and new versions of the message text.

Corrective Maintenance

NOTE: All output banners allow 4-digits for the time zone.

EAGLE 5 ISS Release 33.0 UAM/UIM Changes

The following are UAM/UIM messages changed by EAGLE 5 ISS 33.0.

UAM	0043
Action	Added for HC MIM.
Old data	Available for reuse
New data	Incorrect feature configuration
UAM	0044
Action	Added for HC MIM.
Old data	Available for reuse
New data	Real time clock battery low
UAM	0045
Action	Added for HC MIM.
Old data	Available for reuse
New data	Real time clock battery restored
UAM	0078
Action	Added for HC MIM.
Old data	Available for reuse
New data	Card temperature above nominal level
UAM	0079
Action	Added for HC MIM.
Old data	Available for reuse
New data	Card temperature within nominal levels
UAM	0104
Action	Added for HC MIM.
Old data	Available for reuse
New data	Card temperature exceeds high threshold
UAM	0105
Action	Added for HC MIM.
Old data	Available for reuse
New data	Card temperature within high threshold
UAM	0369
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-T1F:FAC-T1 unavailable

Corrective Maintenance

UAM	0376
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-T1F:FAC-T1 LOS failure
UAM	0377
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-T1F:FAC-T1 LOF failure
UAM	0378
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-T1F:FAC-T1 Remote Alarm
UAM	0379
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-T1F:FAC-T1 Alarm
UAM	0380
Action	Added for HC MIM.
Old data	Available for reuse
New data	RCVRY-T1F:FAC-T1 available
UAM	0381
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-E1F:FAC-E1 LOS failure
UAM	0382
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-E1F:FAC-E1 LOF failure
UAM	0383
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-E1F:FAC-E1 AIS detected
UAM	0384
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-E1F:FAC-E1 Far End failure
UAM	0385

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Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-E1F:FAC-E1 10E-3 BER failed
UAM	0386
Action	Added for HC MIM.
Old data	Available for reuse
New data	RCVRY-E1F:FAC-E1 available
UAM	0387
Action	Added for HC MIM.
Old data	Available for reuse
New data	REPT-E1F:FAC-E1 unavailable
UAM	0067
Action	Deleted for HC MIM.
Old data	REPT-T1F:FAC-T1 Port 1 LOS failure
New data	Available for reuse
UAM	0068
Action	Deleted for HC MIM.
Old data	REPT-T1F:FAC-T1 Port 1 LOF failure
New data	Available for reuse
UAM	0069
Action	Deleted for HC MIM.
Old data	REPT-T1F:FAC-T1 Port 1 Remote Alarm
New data	Available for reuse
UAM	0070
Action	Deleted for HC MIM.
Old data	REPT-T1F:FAC-T1 Port 1 Alarm
New data	Available for reuse
UAM	0071
Action	Deleted for HC MIM.
Old data	RCVRY-T1F:FAC-T1 Port 1 available
New data	Available for reuse
UAM	0072
Action	Deleted for HC MIM.
Old data	REPT-T1F:FAC-T1 Port 2 LOS failure
New data	Available for reuse
UAM	0073
Action	Deleted for HC MIM.

Corrective Maintenance

Old data	REPT-T1F:FAC-T1 Port 2 LOF failure
New data	Available for reuse
UAM	0074
Action	Deleted for HC MIM.
Old data	REPT-T1F:FAC-T1 Port 2 Remote Alarm
New data	Available for reuse
UAM	0075
Action	Deleted for HC MIM.
Old data	REPT-T1F:FAC-T1 Port 2 Alarm
New data	Available for reuse
UAM	0076
Action	Deleted for HC MIM.
Old data	RCVRY-T1F:FAC-T1 Port 2 available
New data	Available for reuse
UAM	0225
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 1 Far End failure
New data	Available for reuse
UAM	0226
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 1 AIS detected
New data	Available for reuse
UAM	0227
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 1 LOF failure
New data	Available for reuse
UAM	0228
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 1 LOS failure
New data	Available for reuse
UAM	0229
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 1 10E-3 BER failed
New data	Available for reuse
UAM	0230
Action	Changed for HC MIM.
Old data	RCVRY-E1F:FAC-E1 Port 1 available

Corrective Maintenance

New data	REPT-LKF: local blocked - thermal
UAM	0460
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 2 Far End failure
New data	Available for reuse
UAM	0461
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 2 AIS detected
New data	Available for reuse
UAM	0462
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 2 LOF failure
New data	Available for reuse
UAM	0463
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 2 LOS failure
New data	Available for reuse
UAM	0464
Action	Deleted for HC MIM.
Old data	REPT-E1F:FAC-E1 Port 2 10E-3 BER failed
New data	Available for reuse
UAM	0465
Action	Deleted for HC MIM.
Old data	RCVRY-E1F:FAC-E1 Port 2 available
New data	Available for reuse

EAGLE 5 ISS Release 34.0 UAM/UIM Changes

The following are UAM/UIM messages changed by EAGLE 5 ISS 34.0

UAM	0443
Action	RTDB Database Corrupted Alarm Severity needs to be Major
Old data	RTDB database is corrupted
New data	RTDB database is corrupted
UIM	1189
Action	Added for Eagle Release 34.0
Old data	Available for reuse

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UIM	1308
Action	Added for Eagle Release 34.0
Old data	Available for reuse
UIM	1309
Action	Added for Eagle Release 34.0
Old data	Available for reuse
UIM	1321
Action	Added for Eagle Release 34.0
Old data	Available for reuse
New Data	Eagle RTDB Birthdate Mismatch
UIM	1322
Action	Added for Eagle Release 34.0
Old data	Available for reuse
New Data	Eagle RTDB Levels Invalid
UIM	1323
Action	Added for Eagle Release 34.0
Old data	Available for reuse
New Data	Eagle/Elap TN Quantity Mismatch
UIM	1324
Action	Added for Eagle Release 34.0
Old data	Available for reuse
New Data	Eagle/Elap TN Quantity Mismatch
UIM	1325
Action	Added for Eagle Release 34.0
Old data	Available for reuse
New Data	Eagle/Elap LRN Quantity Mismatch
UIM	1326
Action	Added for Eagle Release 34.0
Old data	Available for reuse
New Data	Eagle RTDB Depth Alert
UIM	1330
Action	Added for Eagle Release 34.0
Old data	Available for reuse

Corrective Maintenance

New Data	Mismatched UA Routing Context
UAM	283
Action	Modified for LNP 192 Million
Old data	LNP Ported LRNs exceeds Feat. Capacity
New data	LNP Ported LRNs approaching Feat. Capacity
UAM	284
Action	Modified for LNP 192 Million
Old data	LNP Ported LRNs Capacity Normal
New data	LNP Ported LRNs Capacity Normal
UAM	285
Action	Modified for LNP 192 Million
Old data	LNP Ported NPAs exceeds Feat. Capacity
New data	LNP Ported NPAs approaching Feat. Capacity
UAM	286
Action	Modified for LNP 192 Million
Old data	LNP Ported NPAs Capacity Normal
New data	LNP Ported NPAs Capacity Normal
UAM	287
Action	Added for LNP 192 Million
Old data	Available for reuse
New data	RTDB Table Level 2 FAK Cap exceeded
UAM	288
Action	Added for LNP 192 Million
Old data	Available for reuse
New data	RTDB Table Level 1 FAK Cap exceeded
UAM	289
Action	Added for LNP 192 Million
Old data	Available for reuse
New data	RTDB Table FAK Capacity Normal
UAM	442
Action	Modified for LNP 192 Million
Old data	RTDB database capacity is 100% full
New data	RTDB database capacity is 95% full

Corrective Maintenance

UAM	443
Action	Modified for RTDB Database Corrupted Alarm Severity needs to be Major
Old data	RTDB database is corrupted
New data	RTDB database is corrupted
UAM	446
Action	Modified for LNP 192 Million
Old data	RTDB database capacity is 80% full
New data	RTDB database capacity is 80% full
UAM	452
Action	Added for LNP 192 Million
Old data	Available for reuse
New data	Exceeded Service Error Threshold Lvl 1
UAM	453
Action	Added for LNP 192 Million
Old data	Available for reuse
New data	Exceeded Service Error Threshold Lvl 2
UAM	454
Action	Added for LNP 192 Million
Old data	Available for reuse
New data	Service Error Threshold Alarm Cleared
UAM	77
Action	Added for PRs 60228/60229 for Thermal alarms
Old data	Available for reuse
New data	Card temperature is at critical lvl:T2
UAM	78
Action	Added for PRs 60228/60229 for Thermal alarms
Old data	Card temperature above nominal level
New data	Card temperature exceeds nominal lvl:T1
UAM	79
Action	Added for PRs 60228/60229 for Thermal alarms
Old data	Card temperature within nominal levels
New data	Card temperature again at nominal level

Corrective Maintenance

EAGLE 5 ISS Release 34.3 UAM/UIM Changes

The following are UAM/UIM messages changed by EAGLE 5 ISS 34.3.

UAM	526
Action	Added for G-Flex Reroute Enhancement
Old Data	Available for reuse
New Data	Service is available
UAM	527
Action	Added for G-Flex Reroute Enhancement
Old Data	Available for reuse
New Data	Service abnormal
UAM	528
Action	Added for G-Flex Reroute Enhancement
Old Data	Available for reuse
New Data	Service is not available
UAM	529
Action	Added for G-Flex Reroute Enhancement
Old Data	Available for reuse
New Data	Service is disabled
UAM	530
Action	Added for G-Flex Reroute Enhancement
Old Data	Available for reuse
New Data	Service is removed
UIM	1332
Action	Added for M2PA RFC
Old data	Unused
New Data	Invalid Initial M2PA FSN Received

EAGLE 5 ISS Release 35.0 UAM/UIM Changes

The following are UAM/UIM messages changed by EAGLE 5 ISS 35.0.

UAM	520
Action	Added for FPBA
Old Data	Available for reuse after 30.0 upgrade not supported

New Data	Frame power usage reached LVL3
UAM	521
Action	Added for FPBA
Old Data	Available for reuse
New Data	Frame power usage reached LVL2
UAM	522
Action	Added for FPBA
Old Data	Available for reuse
New Data	Frame power usage reached LVL1
UAM	523
Action	Added for FPBA
Old Data	Available for reuse
New Data	Frame power usage normal
UAM	524
Action	Added for Timed Alarm Inhibit
Old Data	Available for reuse
New Data	REPT-ALMINH: alarm output TIMED inhibit
UAM	525
Action	Added for Timed Alarm Inhibit
Old data	Available for reuse
New Data	Timed alarm inhibit about to expire
UAM	531
Action	Added for Integrated SIGTRAN Monitoring
Old data	Available for reuse
New Data	Insufficient HW Copy Function Inhibited
UAM	532
Action	Added for MOBR
Old data	Available for reuse
New Data	RTX is allowed
UAM	533
Action	Added for MOBR
Old data	Available for reuse
New Data	RTX is restricted

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UAM	534
Action	Added for MOBR
Old data	Available for reuse
New Data	RTX is prohibited
UAM	535
Action	Added for IP Signaling Serviceability
Old data	Available for reuse
New Data	IP Connection Restricted
UAM	558
Action	Added for MOBR
Old data	Available for reuse
New Data	REPT-MTPLP-DET: Circ rte det(cong)
UIM	1190
Action	Updated for Origin-Based SCCP Routing
Old data	Unused
New Data	SCCP rcvd inv Clg Party - bad GT ind
UIM	1191
Action	Updated for Origin-Based SCCP Routing
Old data	Unused
New Data	SCCP rcvd inv Clg Party - bad Selectors
UIM	1192
Action	Updated for Origin-Based SCCP Routing
Old data	Unused
New Data	SCCP translation found: XLAT=UDTS
UIM	1193
Action	Updated for Origin-Based SCCP Routing
Old data	Unused
New Data	SCCP translation found: XLAT=DISC
UIM	1195
Action	Added for Flexible Final GTT Load-Sharing (FFGTLS)
Old data	Unused
New Data	SCCP did not route: DPC/SS not in Mapset
UIM	1320

Action	Updated for EAGLE Frame Power Budget Alarm
Old data	Unused
New Data	FPT value unprovisioned for frame
UIM	1331
Action	Updated for Integrated SIGTRAN Monitoring for IPLIMx
Old data	Unused
New Data	IP Route Table Entry Conflict
UIM	1333
Action	Updated for IP Signaling Serviceability
Old data	Unused
New Data	IPGW RCVD MSG DISCARDED
UIM	1334
Action	Updated for IP Signaling Serviceability
Old data	Unused
New Data	IPGW TX MSG DISCARDED
UIM	1335
Action	Updated for Eagle RTDB Data Validation Improvements
Old data	Unused
New Data	Table Information
UIM	1336
Action	Updated for IP Signaling Serviceability
Old data	Unused
New Data	IPGW UA ERROR MSG RECEIVED
UIM	1337
Action	Updated for IP Signaling Serviceability
Old data	Unused
New Data	UA HEARTBEAT TIMEOUT
UIM	1338
Action	Updated for Origin-Based SCCP Routing
Old data	Unused
New Data	SCCP did not route - no PC in CgPA
UIM	1339
Action	Updated for Origin-Based SCCP Routing

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Old data	Unused
New Data	SCCP did not route - no dflt Clg PC Set
UIM	1340
Action	Updated for Netboss and STP2 alarm mismatch
Old data	Unused
New Data	REPT COND: TRBL resynch required

EAGLE 5 ISS Release 35.1 UAM/UIM Changes

The following are UAM/UIM messages changed by EAGLE 5 ISS 35.1.

UIM	1349
Action	Added for MSUs less than 5 bytes or greater than 279 bytes.
Old data	Unused
New Data	MSU invalid size – discarded

EAGLE 5 ISS Release 35.6 UAM/UIM Changes

The following are UAM/UIM messages changed by EAGLE 5 ISS 35.6.

UAM	0536
Action	Added for S CTP Alarming.
Old data	Unused
New Data	IP Connection Excess Retransmits
UAM	0537
Action	Added for IP ⁷ Ethernet.
Old data	Unused
New Data	Ethernet error threshold exceeded
UAM	0538
Action	Added for IP ⁷ Ethernet.
Old data	Unused
New Data	Ethernet error threshold cleared
UAM	0539
Action	Added for IP ⁷ Ethernet.
Old data	Unused
New Data	Ethernet Interface Down

UAM	0540
Action	Added for IP ⁷ Ethernet.
Old data	Unused
New Data	Ethernet Interface Up
UAM	0541
Action	Added for Inter-card Message Integrity.
Old data	Unused
New Data	MSU cksum error threshold exceeded
UAM	0542
Action	Added for Inter-card Message Integrity.
Old data	Unused
New Data	MSU cksum error threshold cleared
UIM	1345
Action	Auto Point Code Recovery
Old data	Unused
New Data	CRD Auto-Clear Sent to All MTP Cards
UIM	1355
Action	Added for Inter-card Message Integrity.
Old data	Unused
New Data	Card Integ Chk: MSU cksum err

Alarm Clearing Procedures

After an audible has sounded, it can be silenced by entering the following command:

```
rls-alm:lvl=xxxx
```

where *xxxx* can be:

minr - Silences a minor alarm

majr - Silences a major alarm

crit - Silences a critical alarm.

All alarm types can be silenced with the following command:

```
rls-alm
```

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The **rls-alm** command does not clear visual alarms on the terminals or alarm indicators on the fuse and alarm panel (FAP) or frame panels.

Once an audible alarm is silenced, any new alarm conditions cause the alarm to sound again.

Silencing a specific alarm when a lower level alarm is also present results in the next highest audible alarm level being activated. For example, the system has both critical and major alarms present. When the critical alarm is silenced, the audible major alarm begins to sound.

Retrieve Trouble Report

Application maintenance software is responsible for monitoring trouble on a card. There are three types of troubles or faults:

- Abnormal situation is being reported by software.
- An SS7 message has a problem (an invalid DPC, for example)
- A hardware fault is being reported.

Trouble reports are used by Tekelec Technical Services to help analyze problems with the EAGLE 5 ISS system. To help Tekelec Technical Services, retain any printouts of the trouble report. The output of the **rtrv-trbl** command should be reviewed with a member of Tekelec Technical Services. To display the current trouble reports, enter the following command at the system terminal:

```
rtrv-trbl:loc=1115:num=1:mode=c
```

The **mode=c** parameter provides a continuous output of the trouble reports as they occur. The **loc=** parameter specifies the active GPSM-II. The **num** parameter indicates how many trouble reports you want to display.

A typical trouble report looks similar to this:

```
tekelecstp 00-05-15 19:04:05 EST EAGLE 35.0.0
  Card 1115 Module tc_utl.c Line 1617 Class 1103 Severity 1
    00 02 f6 00 01 23 06 22 05 00
  Report Date 00-05-15 Time19:04:05
```

The trouble reports include:

- Card number
- Module name
- Line number
- Class
- Severity

Hourly Status Message Reports

The system provides hourly reports that include a list of all alarms and any devices that are manually deactivated or inhibited. The report contains the alarms that exist at the time the report is generated. Any alarms that have occurred, and have been cleared in the last hour, are not reported. The hourly status message report is automatically generated at the beginning of each hour (08:00, 09:00, and so forth). The system sends the report to all system terminals that can receive unsolicited program update messages.

The information shown in the hourly status report can also be displayed by entering one or more of the following commands.

NOTE: Systems supporting an ITU network are not configured with the LNP or SEAS features.

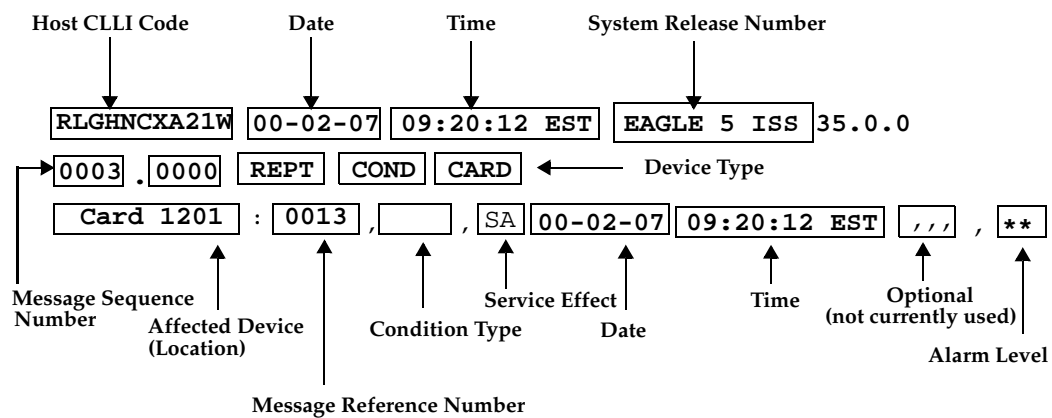
- **rept-stat-alm:** Displays the summary of all alarm counts.
- **rept-stat-card:** When used with the **stat** parameter, displays all cards with the state specified by the **stat** parameter. Refer to the *Commands Manual* for additional information on the use of parameters with this command.
- **rept-stat-cdt:** Displays the customer defined troubles.
- **rept-stat-clk:** Displays the status of the clocks.
- **rept-stat-cluster:** Displays the summary status and statistical information for all configured cluster point codes.
- **rept-stat-db:** When used with the **display=except** parameter, displays the status of the system database by displaying the database level of the cards whose database level does not match the active fixed disk current partition. Refer to the *Commands Manual* for additional information on the use of parameters with this command.
- **rept-stat-dlk:** When used with the **:stat** parameter, displays the status of the TCP/IP data links. Refer to the *Commands Manual* for additional information on the use of parameters with this command.
- **rept-stat-dstn:** When used with the **stat** parameter, displays the destination point codes with the state specified by the **stat** parameter. Refer to the *Commands Manual* for additional information on the use of parameters with this command.
- **rept-stat-dstn:** When used with the **mode=full** parameter, displays the subsystem status. Refer to the *Commands Manual* for additional information on the use of parameters with this command.
- **rept-stat-mps:** Displays in a single report, the overall status of the EPAP (EAGLE 5 ISS Provisioning Application Processor) subsystem.

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- **rept-stat-gpl**: Displays the version of the GPL currently being used by an application and which versions of the GPL are the trial and approved versions of that GPL.
- **rept-stat-imt**: Displays the primary, secondary, and associated maintenance states of the IMT buses.
- **rept-stat-lnp**: Displays the status and statistics related to LNP.
- **rept-stat-ls**: When used with the **stat** parameter, displays the linksets that have the state specified by the **stat** parameter. Refer to the *Commands Manual* for additional information on the use of parameters with this command.
- **rept-stat-sccp**: Displays the status of the TSMs running the SCCP application.
- **rept-stat-seas**: Displays the status of the SEAS subsystem.
- **rept-stat-slan**: Displays the status of the ACMs that make up the STPLAN subsystem.
- **rept-stat-slk**: When used with the **stat** parameter, displays the signaling links that have the state specified by the **stat** parameter. Refer to the *Commands Manual* for additional information on the use of parameters with this command.
- **rept-stat-sys**: Displays the status of these items: alarms, IMT buses, signaling links (both SS7 and X.25 signaling links), linksets, destination point codes (DPCs), the maintenance and administration subsystem (MAS), clocks, TSMs loaded with the SCCP or GLS application, security subsystem, and the SEAS subsystem.
- **rept-stat-trbl**: Displays a report of all the device trouble notifications that are currently logged in the OAM RAM storage area. The severity of each alarm is also identified in the report.
- **rept-stat-trm**: Displays the status of the terminal serial ports.
- **rept-stat-xlist**: Displays the statistics related to the storage of exception list (x-list) entries.

If the message reference number (MRN) field has a null value (no field entry), the device has been manually removed from service (through **inh-card**, **canc-slk**, and so forth). There is no alarm for the device and the condition type is SCMMA (state change due to manual action). The date and time in the report refer to the date and time of the alarm or when the device was removed from service. The format of the output is in Figure 3-6.

Figure 3-6. Format of Hourly Status Message Output



The following is a list of the device types and subsystems (with the ID of the affected device or subsystem) that the hourly status message report displays reports for. For example, if the device type being reported on is CARD, then card locations are displayed. Only those device types and subsystems that have disabled devices or alarm conditions are displayed in the hourly status message report. If there is more than one device type or subsystem to display, they are displayed in the following order.

1. CARD - the card location
2. IMT - the IMT bus A or IMT bus B
3. BITS - the BITS clock
4. TRM - the terminal port
5. SLK - the linkset name and the signaling link code (SLC)
6. DLK - the data links
7. LS - the linkset name
8. DPC - the destination point code
9. CDT - the customer defined trouble number
10. FUSE PNL - the frame ID of the system
11. SYSTEM - system
12. ALM - alarms
13. SYS CLK - system clock
14. SYS IMT - system IMT
15. SCCP SS - SCCP subsystem
16. GLS SS - GLS subsystem

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17. GPL_SS - the name of the GPL
18. SLAN SS - STP/LAN subsystem
19. XLIST SS - XLIST subsystem
20. SEAS OAP - the OAP port
21. SEAS X25 - the SEAS X.25 link port
22. SEAS SS - SEAS subsystem
23. SECULOG - Security log
24. LNP SS - LNP subsystem
25. LSMS Q.3 Association - Local Services Management System Association
26. LSMS SS - Local Services Management System subsystem
27. HS System CLK - High-Speed system clock
28. EMDC Links - Element Measurement & Data Collection Application Links
29. NDC SS - Network Data Collection subsystem
30. NDC Q.3 Association - Network Data Collection Q.3 association
31. GSM SS - GSM subsystem
32. MPS (ELAP/EPAP) - Multi-Purpose Server
33. DSM Links - Database Services Module
34. INP SS - INP subsystem
35. SECURITY SS - Security subsystem

Within each device type or subsystem being reported, the subsets of the report are displayed in the following order.

1. Disabled Devices
2. Minor Alarms
3. Major Alarms
4. Critical Alarms

The *cond type* field supports five values for this release:

- SCMMA: The device has been disabled due to manual maintenance action. This condition applies regardless of a previous alarm state.
- MTCEINT-0: The reported device is off normal (ANR), but there is no alarm associated with this device. An alarmed condition for another device typically affects the state of this device. For example, out-of-service (OOS) links affect the condition of the linksets.

- **MAN:** The reported device is off-normal (OOS-MT), but there is no alarm associated with this device. The off-normal condition was caused by manual intervention (by entering the ent-dstn command, for example).
- **NULL:** No specific cond type is supported. There is sufficient information to ascertain the device condition from the report. You should use a rept-stat command for further information.
- **INAUDB:** The user has manually inhibited alarms for this device. The time when the device was inhibited is recorded and displayed during the hourly report.

Following is an example of the report:

```

RLGHNCXA21W 00-07-16 12:20:12 EDT EAGLE 35.0.0
1240.0000 REPT COND CARD
"CARD 1101:0013,,SA,00-07-16,10:03:29,,,,*"
"CARD 1107:,SCMMA,,00-07-16,10:03:29,,,,"
"CARD 1113:0143,,NSA,00-07-16,10:03:29,,,,*"

RLGHNCXA21W 00-07-16 12:20:12 EDT EAGLE 35.0.0
1241.0000 REPT COND SLK
"SLK 1s1201-0,,NSA,00-07-16,10:03:29,,,,*"
"SLK 1s1201-1,,NSA,00-07-16,10:03:30,,,,*"
"SLK 1s1202-0,,NSA,00-07-16,10:03:31,,,,*"
"SLK 1s1202-1,,NSA,00-07-16,10:03:32,,,,*"

RLGHNCXA21W 00-07-16 12:20:12 EDT EAGLE 35.0.0
1242.0000 REPT COND LS
"LS 1s1201:,MTCEINT-0,,00-07-16,10:03:29,,,,"
"LS 1s1202:0318,,NSA,00-07-16,10:03:29,,,,*"
"LS 1s1203:0318,,00-07-16,10:03:29,,,,*"
"LS 1sx23 :0318,,NSA,00-07-16,10:03:33,,,,*"

RLGHNCXA21W 00-07-16 12:20:12 EDT EAGLE 35.0.0
1243.0000 REPT COND DPC
"DPC 001-001-001:0313,,SA,00-07-16,10:03:29,,,,*C"
"DPC 002-002-002:0313,,SA,00-07-16,10:03:30,,,,*C"
"DPC 003-003-003:0313,,SA,00-07-16,10:03:31,,,,*C"
"DPC 001-005-* :0313,,SA,00-07-16,10:03:32,,,,*C"
"DPC 006-006-006:,MAN,,00-07-16,10:03:32,,,,"

RLGHNCXA21W 00-07-16 12:20:12 EDT EAGLE 35.0.0
1244.0000 REPT COND TRM
"TRM 2:.SCMMA,00-07-16,10:03:29,,,,"
"TRM 3:0048,,NSA,00-07-16,10:03:29,,,,*"

```

Maintenance System Event Logs

The **rtrv-log** command is used to retrieve records from the active or standby event logs generated by the maintenance system. This command selects these records based on a span of time or a specific log file index. There are numerous ways to sort and filter the output. Refer to the *Commands Manual* for details on using the **rtrv-log** command. A sample output follows:

```
rtrv-log:sdate=960715:stime=220000:num=50:SNUM=106:ENUM=350
```

Corrective Maintenance

```
ncralstp00001 96-07-16 10:15:29 EST Rel XX.X.X

Card 1113; SYS REL= XX.X.X; STP CLLI= ncralstp00001; Timezone= EST
****96-07-16 00:23:55****
3161.0200 SLK 1103,B RCVRY-LKF: link available
****96-07-16 01:42:18****
3162.0155 * DLK 2117,A STPLAN Exceeded n unavailable
****96-07-16 01:43:51****
3163.0317 LSET A123456789 RCVRY-LKSTO: linkset allowed
****96-07-16 03:00:23****
3165.0108 ** IMT BUS A Major IMT fault detected
****96-07-16 03:37:59****
3166.0292 *C GLS SYSTEM GLS is not available
****96-07-16 07:22:06****
3167.0313 *C DPC 021-005-000 DPC is prohibited
****96-07-16 09:33:17****
3168.0348 * SEAS SYSTEM SEAS is at minimum service
****96-07-16 09:34:01****
3169.0112 * IMT SYSTEM Major Failures detected on both
****96-07-16 09:35:07****
3170.0160 * CLOCK SYSTEM 1116-S clock failed
****96-07-16 09:36:34****
3171.0160 * CARD 1116 OAM 1116-S clock failed
****96-07-16 09:38:12****
3173.0308 *C SYSTEM Node isolated due to SLK failure
****96-07-16 09:39:56****
3174.0331 *C SCCP SYSTEM SCCP is not available
****96-07-16 09:41:34****
3176.0153 *C SLAN SYSTEM STPLAN not available
****96-07-16 09:43:52****
3178.0344 * SEAS X25 LINK A1 SEAS PVC unavailable
****96-07-16 09:44:18****
3179.0344 * SEAS OAP A SEAS UAL unavailable
****96-07-16 09:45:29****
3180.0321 * XLIST X-LIST occupancy threshold Exceeded
****96-07-16 09:48:48****
3181.0175 * SECURITY 1114 LOGBUFROVL-SECULOG - upload required
;
Report terminated - end of log reached.
END OF LOG REPORT.
;
```

The **rtrv-trbltx** command is used to retrieve alarm and UIM message information including MRN (message reference number), level (for Alarms), Output Group and text.

The default **rtrv-trbltx** report displays all Alarms (in numerical order), and then all UIMs. Using the optional parameters, the capability exists to display a range of Alarms or UIMs, search for Alarms, UIMs or both message types matching a specific Output Group or sort all entries by Output Group. Refer to the *Commands Manual* for details on using the **rtrv-log** command. A sample output follows:

```
rtrv-trbltx:OUTGRP=all
ncralstp00001 03-07-16 10:15:29 EST Rel XX.X.X

Card 1113; SYS REL= XX.X.X; STP CLLI= ncralstp00001; Timezone= EST
Alarm Report
      MRN      LEVEL  OUTPUT GROUP      TEXT
```

```

-----
      Output Group - SYS
          0001  MAJR  SYS          Card has reset
          0002  MINR  SYS          Card is not running approved GPL
              :
          0912  NONE  SYS          Dynamic database is now consistent
      :
      Output Group - LINK
          0155  MINR  LINK         STPLAN connection unavailable
          0156  NONE  LINK         STPLAN connection available
              :
          0479  NONE  LINK         Link not Monitored
UIM Report
      MRN              OUTPUT GROUP  TEXT
-----

      Output Group - SYS
SCCP      1000              SYS          MTP rcvd UPU - user part is not
          1001              SYS          MTP rcvd Transfer Controlled (TFC)
              :
          1499              SYS          Invalid MRN detected
      :
      Output Group - LINK
          13nn              LINK         Example text
      END OF RTRV-TRBLTX REPORT.
;

```

Obituaries

An obituary is a set of data that describes the status of the system just before a processor restarted due to a fault in hardware or software. The data includes a register and stack dump of the processor, card location, reporting module number, software code location, and class of the fault detected. In most situations, obituary reports are generated automatically when a card is reset. Obituary reports can also be retrieved manually using the **rtrv-obit** command. Refer to the *Commands Manual* for information on using the **rtrv-obit** command. Obituaries should immediately be reported to the .

To help Tekelec Technical Services, retain any printouts of the obituary. Tekelec Technical Services can use the report to analyze the problem. A typical obituary looks like the following:

```

rtrv-obit:loc=1115:num=2
rlghncxa03w 01-03-30 08:43:14 EST  EAGLE 35.0.0
-----
STH: Received a BOOT 286-obituary reply for 1 restart(s)
Primary: Card 1203  Module 4608  Mod_loc 1  Class 0080
Register Dump :
    FL=338e  CS=4a9c  IP=01c0
    AX=0000  CX=0100  DX=21c1  BX=078a
    SP=01a6  BP=01a6  SI=0fe4  DI=3ece
    DS=dce8  ES=21c1  SS=336b
Stack Dump :
[SP+1E]=3ece  [SP+16]=46cc  [SP+0E]=0001  [SP+06]=0246
[SP+1C]=078a  [SP+14]=dce8  [SP+0C]=4608  [SP+04]=338e
[SP+1A]=078a  [SP+12]=078a  [SP+0A]=0001  [SP+02]=4a9c

```

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```
[SP+18]=0100    [SP+10]=336b    [SP+08]=0080    [SP+00]=01c0

STH: Received a BOOT 486-obituary reply for 1 restart(s)
Primary: Card 1213    Module 0047    Mod_loc 5    Class 0241
Register Dump :
    EFL=00000000    CS =0208    EIP=0003e75f    SS =0060
    EAX=0009a90b    ECX=0009a915    EDX=00000000    EBX=00000000
    ESP=000ddaf2    EBP=000ddb6c    ESI=00090241    EDI=00141df8
    DS =0060    ES =0060    FS =0060    GS =0060
Stack Dump :
[ESP+2E]=0009    [ESP+28]=1df8    [ESP+22]=0000    [ESP+1C]=a915
[ESP+2C]=a90b    [ESP+26]=0009    [ESP+20]=0000    [ESP+1A]=0009
[ESP+2A]=0014    [ESP+24]=a8c0    [ESP+1E]=0009    [ESP+18]=a90b
User Data Dump :
    0a 06 00 00 46 01 08 04 00 00 00    ....F.....
Report Date:01-03-04    Time:09:19:59
-----
;
```

Terminal Not Responding

When a terminal is not responding, perform the following procedure:

Procedure 3-1.

1. Verify the terminal is connected to the MMI port on the back of the control shelf.

2. Verify the terminal is set up for 7-E-1.

3. From a working terminal, enter the following command to determine the port connected to the faulty terminal:

```
rtrv-trm
```

Note the port number. From the output message, verify the settings are correct.

If no working terminal is available, contact the *Customer Care Center*, see page 1-12.

4. Enter the following command to inhibit the terminal failing to respond.

```
inh-trm:trm=x
```

where *x* is the terminal that is not responding.

- Enter the following command to re-activate the terminal failing to respond.

```
alw-trm:trm=x
```

where x is the terminal that is not responding. If the terminal fails to respond, go to Step 6.

- Enter the following command to ensure that the other terminal devices are functioning:

```
rept-stat-trm
```

Following is an example of the output:

```
RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
TRM  PST          SST          AST
 1   IS-NR        Active      -----
 2   IS-NR        Active      -----
 3   IS-NR        Active      -----
 4   OOS-MT-DSBLD  MANUAL     -----
 5   IS-NR        Active      -----
 6   IS-NR        Active      -----
 7   IS-NR        Active      -----
 8   IS-NR        Active      -----
 9   IS-NR        Active      -----
10   IS-NR        Active      -----
11   IS-NR        Active      -----
12   IS-NR        Active      -----
13   OOS-MT-DSBLD  MANUAL     -----
14   OOS-MT-DSBLD  MANUAL     -----
15   OOS-MT-DSBLD  MANUAL     -----
16   OOS-MT-DSBLD  MANUAL     -----
Command Completed.
```

- Verify the problem is not with the terminal by swapping terminals with a known good terminal. Make sure the physical connections are firmly seated. If the terminal works, replace the original terminal.
- If a single terminal is not functioning and you have verified that the terminal is good, the connections are good, and the settings are correct, then from another terminal inhibit the terminal port with the following command:

```
rmv-trm:trm=x
```

where x is the terminal port number (1 through 16).

- Enable the terminal port with the following command:

```
rst-trm:trm=x
```

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where x is the terminal port number (1 through 16).

If this action corrects the problem, you are done with this procedure.

10. If the terminal still does not respond, contact the *Customer Care Center*, see page 1-12.
-

Printer Not Working

Perform the following procedure if the printer is not working.

Procedure 3-2. Troubleshoot Printer

1. Enter the following command to determine the port connected to the faulty printer:

```
rtrv-trm
```

Note the port number. From the output message, verify the settings are correct.

2. Verify the printer is connected, and the power is on. Run a printer test to verify the printer is operational (refer to the printer manual for printer tests).

If there is no problem with the printer, continue with Step 3.

If there is a problem with the printer, go to Step 4.

3. Enter the following command to ensure that the other terminal devices are functioning on the TDM in the active MASP:

```
rept-stat-trm
```

Following is an example of the output:

```

RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
TRM  PST          SST          AST
 1   IS-NR        Active        -----
 2   IS-NR        Active        -----
 3   IS-NR        Active        -----
 4   OOS-MT-DSBLD  MANUAL        -----
 5   IS-NR        Active        -----
 6   IS-NR        Active        -----
 7   IS-NR        Active        -----
 8   IS-NR        Active        -----
 9   IS-NR        Active        -----
10   IS-NR        Active        -----
11   IS-NR        Active        -----
12   IS-NR        Active        -----
13   OOS-MT-DSBLD  MANUAL        -----
14   OOS-MT-DSBLD  MANUAL        -----
15   OOS-MT-DSBLD  MANUAL        -----
16   OOS-MT-DSBLD  MANUAL        -----
Command Completed.

```

-
4. Verify the problem is not with the printer by swapping printers with a known good printer. Make sure the physical connections are firmly seated. If the printer works, replace the original.
-

5. If a single port is not functioning and it has been verified the printer is good, the connections are good, and the settings are correct, inhibit the printer port with the following command:

```
rmv-trm:trm=x
```

where *x* is the printer port number (1 through 16).

6. Enable the printer port with the following command:

```
rst-trm:trm=x
```

where *x* is the terminal port number (1 through 16).

If this action corrects the problem, you are done with this procedure.

7. If none of the ports are active, trying resetting and then reseating the TDM card.
-

8. If the problem persists, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

9. If the terminal still does not respond, contact the *Customer Care Center*, see page 1-12.
-

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10. If only the printer port is inactive, inhibit the printer with the following command:

```
rmv-trm:trm=x
```

where *x* is the printer number (1 through 16).

11. Enable the printer with the following command:

```
rst-trm:trm=x
```

If this action corrects the problem, you are done with this procedure. If the problem persists, reseal the TDM card.

12. If reseating the TDM card does not correct the problem, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

13. If the printer still does not respond, contact the *Customer Care Center*, see page 1-12.
-

Modem Not Working

Using Procomm Plus and a modem connected to a serial port on the system, the system can be accessed remotely. If there are problems connecting to the modem, perform the following procedure:

Procedure 3-3. Troubleshoot Modem

1. Check the physical connection. The connector to the modem should be an RS-232 connection and firmly seated in both the serial port of the system and the modem.
 2. Verify the flow control is set to hardware.
 3. Start Procomm Plus and check the modem settings.
-

The following are possible modem settings for the recommended modem, the Motorola UDS. (Other types of modems may have different settings):

- AT&F0 - Load factory profile and defaults
- AT&C1 - Make DCD true
- ATE0 - Disable command echo. If you use this command, you do not see the commands that you enter. Be careful to enter the commands correctly.

- ATQ1 - Stop the results codes to the terminal
 - AT&W0 - Store profile in memory location 0
 - AT&Y - Select stored profile 0 on power up
-

Remove Removable Cartridge Stuck in Drive on MDAL

Use this procedure to remove a removable cartridge if it becomes stuck in the drive. Verify the data on the disk is correct after performing this procedure.



WARNING: Before performing any maintenance procedures on the system, make sure you wear a wrist strap connected to the wrist strap grounding point of the system.

Procedure 3-4. Remove Removable Cartridge That Is Stuck in MDAL Drive

1. The card is located in slot 1117. Push the inject/eject clamps outward from the card's faceplate (top clamp in the "UP" position, bottom clamp in the "DOWN" position). Pull the levers away from the shelf until they are parallel to the floor. Gently pull the card towards you until the card clears the shelf.

Figure 3-7. Push Inject/Eject Clamps Outward



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2. Use a paper clip or pin to eject the cartridge. Refer to Figure 3-1.

3. Open the ejector levers on the replacement card. Carefully align the card's edges with the top and bottom card guides. Then push the card along the length of the card guides until the rear connectors on the card engage the mating connectors on the target shelf backplane.

4. Press the left edge of the card's faceplate using constant pressure until you feel the card's progress cease.



WARNING: Do not impact the faceplate in order to mate the connectors. Any impact to the card's faceplate can damage the faceplate, the pins, or the connectors.

5. Push in the top and bottom inject/eject clamps. This locks the card in place and ensures a strong connection with the pins on the target shelf backplane.

Figure 3-8. Push in Inject/Eject Clamps



Push in the inject/eject clamps to lock the card in place.

6. Record the activity in the site maintenance log.
-

Link Maintenance

Link maintenance covers the proper functionality of a signaling link, from an EAGLE 5 ISS MTP card to a remote NE.

Link Fault Sectionalization

The link fault sectionalization (LFS) feature allows maintenance personnel to perform DSOA link fault sectionalization tests, a series of far end loopback tests, from the system and identify faulty segments of an SS7 transmission path up to and including the remote network element.

The point on the signaling link at which each loopback test ends is the far end loopback point. A far end loopback point is achieved when the remote link element sends the received data back to the transmitter, allowing the transmitter to verify the received data. The remote link elements are shown in Table 3-10.

Table 3-10. Remote Link Element types

Element	Description	Valid for the Latching Link Fault Sectionalization Test?	Valid for the Non-latching Link Fault Sectionalization Test?
DSO	DSO Dataport	yes	no
OCU	OCU Dataport	yes*	yes
CSU	CSU Dataport	yes*	yes
DSU	DSU Dataport	yes*	yes
NEI	Network Element Interface	yes	no
* The OCU, CSU and DSU must be strapped or optioned to support latching link fault sectionalization loopback.			

The loopback point is moved along the signaling link path until the point is in the far end network element. Therefore, each loopback point along the link requires the initiation of one link fault sectionalization test on the SS7 LIM.

The link fault sectionalization test types for loopback tests are shown in Table 3-11.

Table 3-11. Link Fault Sectionalization Test Types

Link Fault Sectionalization Test Types	Description
Latching link fault sectionalization test (LLT-auto)	A loopback point is established using signaling commands and remains until it is removed by signaling commands.
Latching link fault sectionalization test (LLT-man)	A loopback point is established by manual means and remains until it is removed by manual means.
Non-latching link fault sectionalization test (NLT)	A loopback command is interleaved with the test data.

The SS7 LIM must be powered up and in service with the signaling link deactivated (OOS-MT-DSBLD) before starting the link fault sectionalization tests. No signaling traffic is on the signaling link by the SS7 LIM while the link is performing a link fault sectionalization test.

The system supports a maximum of 32 remote link elements for each SS7 link.

The system allows a maximum of 1024 SS7 simultaneous LFS tests.

Hardware Configuration

The link fault sectionalization feature requires a LIM hardware configured as shown in Table 3-13. The test data is guaranteed to be a continuous data stream, and the commands provide the ability to put any element in the link into latched loopback.

The test data is provided is shown in Table 3-12. The data stream sent is verified against the data stream received and a bit error count is updated. If the bit error count is 255 or greater in one second period, the value of the bit error count remains at 255, does not overflow and the test is terminated.

Table 3-12. Link Fault Sectionalization Test Patterns

Test Pattern	Data	Description
<small>B2047</small>	<small>N/A</small>	<small>B2047 Bert pattern sent until it is terminated by software.</small>
B2047 Non Latching	N/A	2047-bit Bert pattern sent interleaved with loopback command until it is terminated by software.
B511	N/A	511-bit Bert pattern sent until it is terminated by software.
B511 Non latching	N/A	511-bit Bert pattern sent interleaved with loopback command until it is terminated by software.

Table 3-12. Link Fault Sectionalization Test Patterns (Continued)

Test Pattern	Data	Description
OCTET	default =h'32	A continuous series of the specified octet data is sent until it is terminated by software. (Latching only)
ALTERNATE	default = h'FF	A count of 100 octets of the specified data followed by 100 octets of 0 is sent alternating until it is terminated by software. (Latching only)

LFS tests initiated by the EAGLE 5 ISS are used to test the functionality of a signaling link (SLK) from an EAGLE 5 ISS MTP card through multiple channel banks to a remote Network Element. The number of simultaneous tests that can be run on a specific card are shown in parenthesis () in Table 3-13. The maximum number of simultaneous tests for a card is determined by hardware type. Table 3-13 shows the relationship between hardware type and LFS support. A key for the values follows:

- **NV** indicates APPL is not valid for the given hardware.
- **No** indicates LFS testing is not supported for this combination of hardware, provisioned type, and provisioned application.
- **Yes** indicates LFS testing is supported (max tests per card is shown in parenthesis

Table 3-13. Hardware/Card/APPL LFS Support

		Provisioned Application	
Hardware	Provisioned Type	SS7ANSI	CCS7ITU
LIM-DS0	LIM-DS0	No	No
LIM-OCU	LIM-OCU	No	No
LIM-V35	LIM-V35	No	No
LIM-AINF	LIM-DS0	Yes (1)	Yes (1)
	LIM-OCU	No	No
	LIM-V35	No	No
LIM-ILA	LIM-DS0	Yes (1)	Yes (1)
	LIM-OCU	No	No
	LIM-V35	No	No
EILA	Yes (1)	Yes (1)	Yes (1)
	Yes (8)	No	No
	LIM-V35	No	No
MPL	LIM-DS0	Yes (1)	NV

Table 3-13. Hardware/Card/APPL LFS Support (Continued)

Hardware	Provisioned Type	Provisioned Application	
		SS7ANSI	CCS7ITU
MPL-T	LIM-DS0	Yes (8)	NV
LIM-E1	LIME1	No	No
E1/T1 MIM	LIME1	No	No
	LIMT1	Yes (8)	Yes (8)
	LIMCH*	Yes (8)	Yes (8)
HC MIM	LIME1	No	No
	LIMT1	Yes (64)	Yes (64)
*If associated parent card is LIMT1			

Test Indicators

Two indicators are used by the **rept-stat-slk** and **rept-stat-ls** commands to show whether the signaling link has a far end loopback condition and if a link fault sectionalization test is in progress.

When the signaling link is in a far end loopback condition:

- The primary state (PST) is *OOS-MT-DSBLD*.
- The secondary state (SST) is *LPBK*.
- The associate state (AST) is *FE*.

When a link fault sectionalization test is in progress:

- The primary state (PST) is *OOS-MT-DSBLD*.
- The secondary state (SST) is *LPBK*.
- The associate state (AST) is *LFS*.

When both the signaling link is in a far end loopback condition and a link fault sectionalization test is in progress:

- The primary state (PST) is *OOS-MT-DSBLD*.
- The secondary state (SST) is *LPBK*.
- The associate state (AST) is *FE-LFS*.

Test Report

Test results are displayed to the terminal when the link fault sectionalization tests have completed. The following is an example of a link fault sectionalization test report.

```

RLGHNCXA03W 96-04-16 16:02:05 EST EAGLE 35.0.0
LOC = 1205 Port = B LSN = ----- Start time = 11:10:34

PATTERN = ALTERNATE DATA= FF MAXERR = 10 TIME = 00:02:00

TEST STATUS = ERROR, bit error exceeded threshold.

LBP  CLLI          RLE  REP  LFST  BIT_ERROR  ERRORED_SEC  DURATION
2    rlghncxa05w  DSO  0    LLT   0           0           00:02:00
3    -----  OCU  0    NLT   8           2           00:02:00
5    -----  NEI  0    LLT  15           1           00:01:20
    
```

LFS Test Details

EAGLE 5 ISS Initiated LFS Loopback Test Details

Loopback Test Type: EAGLE 5 ISS initiated Level 1 DS0 LFS test

Link State: Link is down.

Equipment tested: Level 1 element(s) in a signaling path.

Purpose: Test the error rates of a signaling path.

Description: Sends loopback code to establish loopback and then performs BERT test for a specified period of time.

Typical use: To validate signaling path has acceptable error rate.

Testing Limits: 1024 concurrent link tests per system.

Remote Initiated LFS Loopback Test Details

Loopback Test Type: Remote Loopback FAR END initiated DS0 LFS test.

Link State: Link can be up or down.

Equipment tested: Near end H/W up to level 2 (LXVR) and far end H/W level 1 interface.

Purpose: Auto-loopback a BERT test to the far end.

Description: When receiving a loopback code, deactivate the link and go into loopback.

Typical use: Used to remotely test the far end with standard DS0 BERT tests.

Testing Limits: No limit on number of cards.

The link fault sectionalization feature uses the following commands:

- **ent-lbp** — add link fault sectionalization test data to the database.
- **chg-lbp** — change existing link fault sectionalization test data in the database.
- **dlt-lbp** — remove link fault sectionalization test data from the database.
- **rtrv-lbp** — display link fault sectionalization test data in the database.
- **act-lbp** — start a link fault sectionalization test.
- **dact-lbp** — stop a link fault sectionalization test.
- **rept-stat-lfs** — generates a report of all links that are under test.

The link fault sectionalization data is configured in the database using the parameters shown in Table 3-14.

Table 3-14. Link Fault Sectionalization Data Entry Parameters

Link Fault Sectionalization Data Entry Parameters	Description
Card Location	SS7 LIM card location
Port Number	Port a or b, and a1, a2, a3, b1, b2, b3 on the MPL
Loopback Point Number	Identifies the remote link element for setting the loopback point. Value is from 1 to 32.
CLLI	Description of the remote link element
Remote Link Element Type	The remote element type from Table 3-10.
Repetition Count	A repetition of the same element type in the link path. This is needed for configuring the link element as a latched loopback point. The value is from 0 to 31.
Link Fault Sectionalization Test Type	Link fault sectionalization test type from Table 3-11 (LFS-man not supported for the database)

Use the **act-lbp** command to start one or a sequence of link fault sectionalization tests. The data stream sent is verified against the data stream received and the bit error counts and block error counts are displayed when the test completes.

The link fault sectionalization test parameters are described in Table 3-12. If either the remote link element type, repetition count, or link fault sectionalization test type are specified with the **act-lbp** command, they must all be specified and the loopback point number parameter is ignored. Otherwise the values for remote

link element type, repetition count, or link fault sectionalization test type are read from the data entered with the **ent-lbp** command using the loopback point number parameter value. The test data parameter is only valid for test patterns OCTET and ALTERNATE.

If all LBPs are selected for the loopback point number parameter, a sequential test of the LBPs, as entered in the database with the **ent-lbp** command for that signaling link, is performed until the entire signaling link has been tested. When performing a test with all LBPs, the test is aborted with the first failed test.

The test is stopped either because the amount of time for the test has expired or if the bit error threshold has been exceeded. The time duration parameter specifies the maximum time duration for one link fault sectionalization loopback point test. The default value is one second (00:00:01) and the maximum value that can be entered is 24 hours (24:00:00). The bit error threshold parameter specifies the maximum number of bit errors allowed for one link fault sectionalization loopback point test. The default value is 56 errors and the maximum value that can be entered is 4,838,400 (24 hours x 56 errors per second).

Table 3-15. Link Fault Sectionalization Test Parameters

Parameters	Description
Card Location	SS7 LIM card location
Port /Link Number	Signaling link id a to a31 and b to b31
Loopback Point Number	The remote link element for setting the loopback point. Value is from 1 to 32, or if this parameter is not specified, all LBPs are selected.
Remote Link Element Type	The remote element type from Table 3-11.
Repetition Count	A repetition of the same element type in the link path. The value is from 0 to 31.
Link Fault Sectionalization Test Type	Link fault sectionalization test type from Table 3-11.
Time duration	Time for one loopback point in hours, minutes, and seconds (hh:mm:ss). The value is from 00:00:01 to 24:00:00. The default value is 1 second (00:00:01).
Error threshold	Bit error threshold. The value is from 0 to 4838400. The default value is 56.
Test pattern	The test pattern from Table 3-12. The default value is B2047.
Test data	The octet to be used for test pattern OCTET or ALTERNATE only.

The **dact-lbp** command stops the link fault sectionalization test in progress and cancels any pending link fault sectionalization tests for the SS7 link. The pending tests are the next sequential LBPs for the SS7 signaling link when an entire link test was initiated.

Link Maintenance Enhancements

The Link Maintenance Enhancements feature covers the following areas:

- Allows the operator to force a card into loopback. Without this enhancement, a card will go in and out of loopback as determined by loopback codes sent by the far end.
- **tst-slk** enhancements for ATM customers. The loopback parameters for ATM cards in the **tst-slk** command act in a similar fashion as the **act-lbp** command for standard DS0 loopbacks. Other **tst-slk** enhancements not specifically related to ATM are also provided.

Command Driven Loopback

Command Driven Loopback (CDL) is the ability to locally drive a signaling link into a manual line loopback. The data received on the signaling link is echoed (transmitted) back. Commands are used to provide this capability on an individual signaling link basis. CDL allows loopback testing of a signaling link when either far-end initiated loopbacks are prevented or when a constant loopback state is desired. This command driven setting of loopback is similar in functionality to a remote initiated loopback. Table 3-16 shows a breakdown of support for Command Driven Loopback based on the MTP card type. Figure 3-9 shows a conceptual view of a signaling links network connections. Local transceiver (LXVR) is a **tst-slk** initiated test in which the line transmit is looped back to the line receive internal to the card. CDL is "LXVR in reverse", the line receive is looped back to the line transmit.

Table 3-16. Command Driven Loopback Support

MTP Card Type	Supported	MTP Card Type	Supported
Pre-AINF	No	T1-ATM	Yes
AINF (DSO, V35, OCU)	Yes	T1 MIM (Channel)	Yes
MPL (DSO)	Yes	E1 MIM (Channel)	Yes
LIM-E1	NO	IPLIM	No
E1-ATM	Yes	IPGTWY	NO

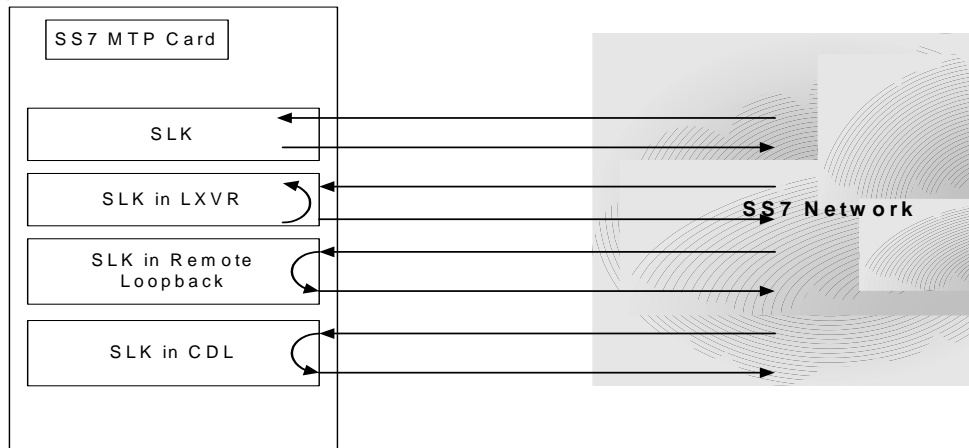
Test Indicators

If an MTP card boots, then all links on this card, by default, are not in CDL. A link in CDL is persistent across an OAM switchover. Signaling links must be inhibited (OOS-MT-DSBLD) to perform command driven loopback. Signaling links in CDL have the following conditions:

- The primary state (PST) is *OOS-MT-DSBLD*.
- The secondary state (SST) is *LPBK*.

- The associate state (AST) is CDL.

Figure 3-9. Signaling Link Network Connections



Test Signaling Link

The *tst-slk* command is used to flush out intermittent link problems that are not captured with the one shot testing. The *tst-slk* command allows for duration tests up to 24 hours, stopping of an in-progress test, and forcing the execution of a test. The *tst-slk* command is grouped into two categories, message based tests and hardware-based tests.

The SLTC and OAM tests are message based. These tests involve sending a message to the far end and expecting an appropriate reply. The LXVR, LINE, and PAYLOAD tests are hardware-based. These tests involve setting hardware registers and after an appropriate duration resetting hardware registers. To prevent overloading of a signaling link, message based tests are delayed 1 to 10 seconds between receipt of an appropriate reply and sending of the next test message. Table 3-17 shows a breakdown of support for each *tst-slk* test based on MTP card.

Table 3-17. *tst-slk* Support

MTP Card Type	tst-slk Test				
	SLTC	LXVR	OAM	LINE	PAYLOAD
OCU	Yes	Yes	No	No	No
V.35	Yes	Yes	No	No	No
MPL (DSO)	Yes	Yes	No	No	No
LIM-E1	Yes	Yes	No	No	No
E1-ATM	Yes	Yes	Yes	No	No

Table 3-17. tst-slk Support (Continued)

MTP Card Type	tst-slk Test				
	SLTC	LXVR	OAM	LINE	PAYLOAD
T1-ATM	Yes	Yes	Yes	Yes	Yes
T1 MIM (Channel)	Yes	No	No	No	No
E1 MIM (Channel)	Yes	No	No	No	No
IPLIM	Yes	No	No	No	No
IPGTWY	No	No	No	No	No
E1 HC MIM	Yes	No	No	No	No
T1 HC MIM	Yes	No	No	No	No
T1 HC MIM	Yes	No	No	No	No

Test Signaling Links Test (tst-slk) Indicators

Signaling links performing **tst-slk** commands have a secondary state of LPBK, and an associated state corresponding to the type of loopback (SLTC, OAM, LXVR, PAYLOAD, LINE). The link must be OOS-MT-DSBLD for LXVR, PAYLOAD, and LINE tests.

If an OAM switchover occurs, while the **tst-slk** command is running, the test is aborted. If an MTP card with an active test boots then the test is aborted.

Test E1 and T1 Ports

The *tst-e1* and *tst-t1* commands initiate loopback testing of the specified E1 and T1 ports on the HC MIM card. There are 8 physical ports on the HC MIM card. This *tst-e1/t1* command is not used for any other MTP card type. Table 3-18 shows a breakdown of support for each *tst-e1/t1* test based on MTP card.

Table 3-18. tst-e1/tst-t1 Support

MTP Card Type	tst-e1/t1 Test	
	LXVR	LINE
E1 HC MIM	Yes	Yes
T1 HC MIM	Yes	Yes

Test E1/T1 Port (tst-e1/t1) Indicators

Signaling links performing *tst-e1/t1* commands have a secondary state of LPBK, and an associated state corresponding to the type of loopback (LXVR, LINE).

If an OAM switchover occurs, while the *tst-e1/t1* command is running, the test is aborted. If an MTP card with an active test boots then the test is aborted.

tst-slk and tst-e1/t1 Loopback Test Details

SLTC Loopback Test Details

Loopback Test Type: SLTC (EAGLE 5 ISS initiated Level 3 SS7 SLT).

Link State: Link is up.

Equipment tested: Near and far end up to Level 3.

Purpose: Test the entire path to the far end at Level 3.

Description: This will send an SLTM out and expects an SLTA back.

Typical use: To validate connectivity of a signaling path.

Testing Limits: 1024 concurrent link tests per system.

OAM Loopback Test Details

Loopback Test Type: OAM (EAGLE 5 ISS initiated Level 1 ATM test).

Link State: Link is down.

Equipment tested: Near and far end level 1 S/W and H/W including all hardware on the cards.

Purpose: Test the entire near and far end level 1 H/W by exchanging ATM cells.

Description: Sends OAM cells out to far end for 60 seconds if no errors, 2 minutes when errors are received.

Typical use: Verifies ATM cells can be exchanged between 2 signaling points.

Testing Limits: 1024 concurrent link tests per system.

LINE Loopback Test Details

Loopback Test Type: LINE (EAGLE 5 ISS initiated Level 1-2 ATM test)

Link State: Link is down.

Equipment tested: Near end H/W up to level 2 (LXVR) and far end H/W level 1 interface.

Purpose: H/W continuity check between near and far end.

Description: The following steps occur:

1. Device under test (DUT) sends T1 bit oriented code (BOC) to remote device.
2. Remote device receives BOC and programs hardware.
3. DUT attempts level 2 alignment.

Corrective Maintenance

4. If link aligns (level 2), test passes, else test fails.
5. DUT sends BOC to remote device to remove loopback.
6. Remote device receives BOC and re-programs hardware.

NOTE: If the DUT boots in the middle of the sequence, the remote device needs to have the link activated/de-activated and it will return to the original programming.

Typical use: Used for a link in line timing to check continuity from the near end level 2 H/W to the level 1 interface at the far end.

Testing Limits: 1024 concurrent link tests per system.

PAYLOAD Loopback Test Details

Loopback Test Type: PAYLOAD (EAGLE 5 ISS initiated Level 1-2 ATM test)

Link State: Link is down.

Equipment tested: Near end H/W up to level 2 (LXVR) and far end H/W level 1 interface.

Purpose: H/W continuity check between near and far end.

Description: The following steps occur:

1. Device under test (DUT) sends T1 bit oriented code (BOC) to remote device.
2. Remote device receives BOC and programs hardware.
3. DUT attempts level 2 alignment.
4. If link aligns (level 2), test passes, else test fails.
5. DUT sends BOC to remote device to remove loopback.
6. remote device receives BOC and re-programs hardware.

NOTE: If the DUT boots in the middle of sequence, the remote device needs to have the link activated/de-activated and it will return to the original programming

Typical use: Used for a link in master timing to check continuity from the near end level 2 H/W to the level 1 interface at the far end.

Testing Limits: 1024 concurrent link tests per system.

LXVR Loopback Test Details

Loopback Test Type: LXVR (EAGLE 5 ISS initiated Level 1 Internal card loopback)

Link State: Link is down.

Equipment tested: Local card.

Purpose: Test the near end card only.

Description: This tests the near end card up through level 2.

Typical use: To validate the Card on the Eagle as good.

Testing Limits: 1024 concurrent link tests per system.

Link Maintenance Enhancements Commands

The link maintenance enhancements feature utilizes the following commands:

- **act-cdl** — this command initiates a command driven loopback for testing a signaling link.
- **dact-cdl** — this command deactivates a previously initiated Command Driven Loopback if active. If not, it will attempt to clear both near-end and far-end latched loopback points.
- **rept-stat-cdl** — this command generates a report of the signaling links currently in command driven loopback (along with the amount of time the link has been in CDL).

```
tekelecstp 96-04-16 16:02:05 EST EAGLE 35.0.05
SLK      CDL      CDL-TIME
1102,A1  LINE      00:04:01
1201,A   PAYLOAD   01:04:11
1203,A   LINE      00:22:21
1203,B   LINE      20:04:01
1208,A   LINE      01:05:22
1211,A   PAYLOAD   00:14:01
```

- **tst-slk** — this command provides several methods for testing SLKs.
- **rept-stat-tstslk** — this command generates a report of the status of the MTP signaling links currently under test. The report includes the type of test and the elapsed time for the test. A sample output follows:

```
tekelecstp 96-04-16 16:02:05 EST EAGLE 35.0.0
SLK      LOOPBACK  MAX-TIME  TEST-TIME
1102,A1  SLTC      01:00:00  00:04:01
1201,A   OAM       02:00:00  01:04:11
1203,A   LXVR      00:50:00  00:22:21
1203,B   LXVR      24:00:00  20:04:01
1208,A   PAYLOAD   01:10:00  01:05:22
1211,A   LINE      21:30:00  00:14:01
;
```


- *tst-e1*— this command initiates the testing of E1 Ports. The loopback parameter on this command is used to select local transceiver (lxvr) and line loopback tests. This command is rejected if a loopback test is not compatible with the port type. This command is only supported on HC MIM hardware.
- *tst-t1*— this command initiates the testing of T1 Ports. The loopback parameter on this command is used to select local transceiver (lxvr) and line loopback tests. This command is rejected if a loopback test is not compatible with the port type. This command is only supported on HC MIM hardware.

Power Down of In-Service System



WARNING: This procedure will isolate the system and put the network in a degraded mode. contact the *Customer Care Center*, see page 1-12 before any part of this procedure is performed.

To minimize the impact on the rest of the network during power up, proper network planning must be performed. This requires having the MTP Restart Feature configured on the system. This power down procedure does not require any special configuration on the system. This procedure should be performed in emergency situations or with prior planning assistance from Tekelec Technical Services. Terminal access to the system is required to deactivate the links. If there is no terminal access to the system, proceed to Step 19

Procedure 3-5. Power Down In-Service System

1. If this is an emergency power down, proceed with Step 11 Otherwise continue with Step 2
-

2. Enter the following command to check the operational status of the database:

```
rept-stat-db
```

If necessary, refer to the *Commands Manual* to interpret the output.

3. Enter the following command to backup the database on the fixed disk:

```
chg-db:action=backup:dest=fixed
```

This command takes a minimum of 2 minutes to execute. It may take longer depending on other system activity that is in progress when this command is entered.

4. Verify that the databases of both MASPs are coherent by entering the following command:

rept-stat-db

The following is an example of the output from a coherent database.

```
> rept-stat-db
```

```
Command Accepted - Processing
```

```
oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
rept-stat-db
Command entered at terminal #4.
```

```
;
```

```
oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
DATABASE STATUS: >> OK <<
      TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
      C  LEVEL      TIME LAST BACKUP  C  LEVEL      TIME LAST BACKUP
-----
FD BKUP Y   342256 00-10-07 00:40:29 CDT Y   342256 00-10-07 00:40:29 CDT
FD CRNT N   342374                      Y   342375
      MDAL 1117
      -----
```

If necessary, refer to the *Commands Manual* to interpret the output.

5. Insert a pre-formatted (for system data) removable cartridge into the removable cartridge drive on the MDAL card.

Refer to Chapter 2, section *Removable Cartridge Handling Procedures*.

Continue with Step 6.

6. Enter the following command to create a backup of the database on the removable cartridge:

```
chg-db:action=backup:dest=remove
```

7. Verify that the databases on the removable cartridge (RD BKUP) and the current partition of the active MASP (FD CRNT) are coherent by entering the following command:

```
rept-stat-db
```

The following is an example of the output from a coherent database.

Corrective Maintenance

```
> rept-stat-db

Command Accepted - Processing

oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
rept-stat-db
Command entered at terminal #4.
;

oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
DATABASE STATUS: >> OK <<
      TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
      C  LEVEL    TIME LAST BACKUP   C  LEVEL    TIME LAST BACKUP
      -  - - - -  - - - - -          -  - - - -  - - - - -
FD BKUP  Y  32256   00-10-07 00:40:29 CDT  Y  32256   00-10-07 00:40:29 CDT
FD CRNT  N  32374
      MDAL 1117
      -  - - - -  - - - - -
```

If necessary, refer to the *Commands Manual* to interpret the output.

8. Remove the removable cartridge from the removable cartridge drive on the MDAL card

Refer to Chapter 2, section *Removable Cartridge Handling Procedures*.

9. Make an entry in the site maintenance log that a backup was performed.
-

10. Enter the following command to verify the status of the mate EAGLE 5 ISS:

```
rept-stat-trbl
```

If there is any trouble or abnormal condition, contact the *Customer Care Center*, see page 1-12.

11. Enter the following command to retrieve the linksets.

```
rtrv-ls
```

12. Enter the following command to retrieve the links.

```
rtrv-slk
```

13. Enter the following command to deactivate all E-links. Use the outputs from Step 11 and Step 12.

```
dact-slk:loc=xxxx:port=y
```

where *xxxx* is the card location stenciled on the shelf of the system and *y* is the port number on the card specified in the loc parameter.

14. Enter the following command to deactivate all A-links. Use the outputs from Step 11 and Step 12.

```
dact-slk:loc=xxxx:port=y
```

where *xxxx* is the card location stenciled on the shelf of the system and *y* is the port number on the card specified in the loc parameter.

15. Enter the following command to deactivate all B-links. Use the outputs from Step 11 and Step 12

```
dact-slk:loc=xxxx:port=y
```

where *xxxx* is the card location stenciled on the shelf of the system and *y* is the port number on the card specified in the loc parameter.

16. Enter the following command to deactivate all D-links. Use the outputs from Step 11 and Step 12.

```
dact-slk:loc=xxxx:port=y
```

where *xxxx* is the card location stenciled on the shelf of the system and *y* is the port number on the card specified in the loc parameter.

17. Enter the following command to deactivate all C-links. Use the outputs from Step 11 and Step 12.

```
dact-slk:loc=xxxx:port=y
```

where *xxxx* is the card location stenciled on the shelf of the system and *y* is the port number on the card specified in the loc parameter.

18. Enter the following command to verify all links on the system are OOS-MT.

```
rept-stat-slk
```

Repeat Step 13 through Step 17 for any links not having the proper status.

19. Pull the fuses or open the breaker at the customer power distribution frame to turn off power to the system.
-

Power Up of the System



WARNING: If the reason for the EAGLE 5 ISS Power Off is unknown or if damage to the EAGLE 5 ISS is suspected, do not perform this procedure. contact the *Customer Care Center*, see page 1-12.

Procedure 3-6. Power Up System

1. Verify that there is no cartridge in the MDAL card. If there is a cartridge in the MDAL, replace the MDAL card with a spare MDAL card without a cartridge. If the spare MDAL card has a cartridge installed, remove the MDAL card. This power up will take place without a MDAL card installed.
-

2. At the power distribution frame, insert fuses or close the breaker to restore power to the system. All frames with the EAGLE 5 ISS shelves must be powered up. Links that were deactivated during the power down are automatically activated during the power up.
-

3. Enter the following commands to monitor the system during the power-up:

```
rept-stat-card
```

```
rept-stat-slk
```

```
rept-stat-trbl
```

Contact the *Customer Care Center*, see page 1-12 if there is any trouble or abnormal condition during system recovery.

4. Install MDAL card and remove removable cartridge, if necessary.
-

UAM and UIM Troubleshooting Procedures

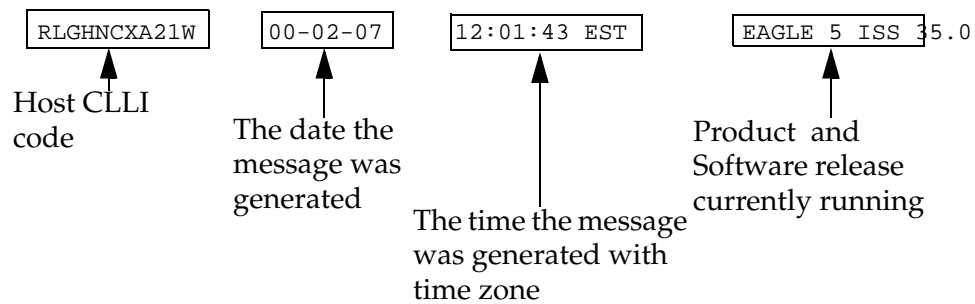
The following procedures are listed by message reference number (MRN). Locate the message reference number in the output message on your screen, find the MRN in this chapter, and follow the procedure to troubleshoot the problem.

NOTE: The outputs in the following procedures are examples. Some outputs have several variations. In most cases only one variation is shown.

If a linkset is in *test mode*, any GWS failure UIMs are reported, but the failed traffic is still switched through. The UIM displays a line identifying the test mode state. A linkset in test mode performs the GWS action, but does not screen out MSUs which do not pass screening. The GWSM action is on and the GWSA or GWS Activated action is off.

The system header information is shown in the example outputs and includes the following information:

Figure 3-10. System Header Information



0001 - Card has reset

This could have been the result of a manual reset, or software reset. If the system software detects trouble with a card, the processors on the card (application or communication processors) are reset by software. The system software is responsible for this function.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0001 ** CARD 1113 OAM Card has reset
```

Alarm Level: Major

Recovery

1. The system recovers from this condition by reloading the card software. If the card continually resets, replace the affected card.

See Appendix A, *Card Removal/Replacement Procedures*.

The recovery message sequence should be similar to:

```
** 0057.0001 ** CARD 1201 SS7ANSI Card has reset
0058.0096 CARD 1201 SS7ANSI Card has been reloaded
0059.0236 SLK 1201,A nc00027 REPT-LKF: not aligned
0060.0236 SLK 1201,B nc00027 REPT-LKF: not aligned
0061.0200 SLK 1201,A nc00027 RCVRY-LKF: link available
```

2. If the card resets without explanation or continues to reset, contact the *Customer Care Center*, see page 1-12.
-

0002 - Card is not running approved GPL

This alarm indicates a card or cards are running a generic program load (GPL) other than the approved GPL. This is determined by a system audit, which compares the GPL running on each card with the approved version for each card type. If any card(s) are running a GPL other than its approved GPL, an alarm is created. Only one alarm for each card application is displayed.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0002 * GPL SYSTEM OAM Card is not running approved GPL
```

Alarm Level: Minor

Recovery

There are three procedures for this output. Choose the procedure based on the GPL System indicated in the alarm message. Refer to the following to help determine the correct procedure:

- a. Use *Recovery procedure for all cards without Flash Memory* on page 3-88 if the following GPLs are indicated in the output as the GPL System

ATMANSI, ATMITU, CCS7ITU, CCS7ITU, EBDABLM, EBDADCM,
EMDC, EOAM, EROUTE, GLS, IMT, IPGWI, IPLIM, IPLIMI, IPS, MCP,
SCCP, SS7ANSI, SS7ANSI, SS7GX25, SS7HC, SS7IPGW, SS7ML, STPLAN,
VSCCP, VXWSLAN

- b. Use *Recovery procedure for cards with Flash Memory (Except HMUX and HIPR)* on page 3-89 if the following GPLs are indicated in the output as the GPL System.

BLBIOS, BLCPLD, BLDIAG, BLVXW, BPDCM, BPHCAP, BPHCAPT,
BPMPL, BPMPLT, IMTPCI, PLDE1T1, PLDPMC1

- c. Use *Recovery procedure for HMUX and HIPR card* on page 3-91 if the following GPL is indicated in the output as the GPL System.

BPHMUX, HIPR

Recovery procedure for all cards without Flash Memory



CAUTION: This procedure causes the identified card to reload, and should be used only during periods of low traffic or the maintenance window.

1. Enter the following command to verify the GPLs running for the card identified in the output.

```
rept-stat-gpl:gpl=xxxxxxx
```

where *xxxxxxx* is the GPL identified in the output.

Following is an example of the output

```
tekelecstp 03-07-03 16:53:23 EST EAGLE5 32.0.0-55.0.0
GPL Auditing ON

GPL      CARD      RUNNING      APPROVED      TRIAL
SS7HC    1203    025-015-001 ALM    025-015-000    -----
```

NOTE: Mismatched GPLs should occur only during upgrades or running a trial GPL.

2. Verify GPL Auditing is **ON**. If not, enter the following command:

```
chg-gpl:audit=on
```

3. Enter the following command to reload the card:

```
init-card:loc=xxxx
```

where *xxxx* is the card location stenciled on the shelf of the EAGLE 5 ISS.

NOTE: Wait for the card to finish loading before continuing.

4. Enter the following command to verify the approved GPLs match the running GPLs:

```
rept-stat-gpl:gpl=xxxxxxx
```

where *xxxxxxx* is the GPL identified in the output.

5. If the GPLs match, you have completed this procedure.

If the GPLs do not match, continue with Step 6.

6. Enter the following command to determine which cards are in alarm condition (indicated by the acronym ALM in the **rept-stat-gpl** display):

```
rept-stat-gpl
```

7. Note which cards are in an alarm condition and contact the *Customer Care Center*, see page 1-12.
-

Recovery procedure for cards with Flash Memory (Except HMUX and HIPR)



CAUTION: This procedure causes the identified card to reload, and should be used only during periods of low traffic or the maintenance window.

1. Enter the following command to verify the GPLs running for the card identified in the output.

```
rept-stat-gpl:gpl=xxxxxxx
```

where *xxxxxxx* is the GPL identified in the output.

Following is an example of the output

```
tekelecstp 03-07-03 16:53:23 EST EAGLE5 35.0.0-55.0.0  
GPL Auditing ON
```

GPL	CARD	RUNNING	APPROVED	TRIAL
BLCPLD	1203	025-015-001 ALM	025-025-000	-----

NOTE: Mismatched GPLs should occur only during upgrades or running a trial GPL.

2. Verify GPL Auditing is **ON**. If not enter the following command:

```
chg-gpl:audit=on
```

3. Enter the following command to change the state of the appropriate card to the out of service - maintenance disabled state:

```
inh-card:loc=xxxx:force=yes
```

where *xxxx* is the card location stenciled on the shelf of the EAGLE 5 ISS.

Following is an example of the output:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0  
Card has been inhibited.
```

4. Enter the following command to load the approved GPL onto the inhibited card:

```
init-flash:code=appr:loc=xxxx
```

where *xxxx* is the card location used in Step 3.

Following is an example of the output using card location 1302:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
FLASH Memory Downloading for card 1114 Started.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
BPDCM Downloading for card 1114 Complete.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
Command Completed.
```

When the **init-flash** command has completed successfully, the card specified in the **init-flash** command is rebooted.

5. Enter the following command to put the card that was inhibited in Step 3 back into service:

```
alw-card:loc=xxxx
```

where *xxxx* is the card location used in Step 3

Following is an example of the output:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
Card has been allowed.
```

NOTE: Allow the card to run for 5 minutes before continuing.

6. Enter the following command to activate the GPL loaded onto the card in Step 4

```
act-flash:loc=xxxx
```

where *xxxx* is the card location used in Step 4

Following is an example of the output using card location 1114:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
FLASH Memory Activation for card 1114 Completed.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
Command Completed.
```

7. Enter the following command to verify the approved GPLs match the running GPLs:

```
rept-stat-gpl:gpl=xxxxxxxx
```

where *xxxxxxx* is the GPL identified in the output.

8. If the GPLs match, you have completed this procedure.

If the GPLs do not match, continue with Step 9.

9. Enter the following command determine which cards are in alarm condition (indicated by the acronym ALM in the **rept-stat-gpl** display):

```
rept-stat-gpl
```

10. Note which cards are in an alarm condition and contact the *Customer Care Center*, see page 1-12.
-

Recovery procedure for HMUX and HIPR card



CAUTION: This procedure causes the identified card to reload, and should be used only during periods of low traffic or the maintenance window.

1. Enter the following command to verify the GPLs running for the card identified in the output.

```
rept-stat-gpl:gpl=xxxxxxx
```

where *xxxxxxx* is the GPL (HIPR or BPHMUX) identified in the output.

Following is an example of a BPHMUX output

```
tekelecstp 03-07-03 16:53:23 EST EAGLE5 35.0.0-55.0.0
GPL Auditing ON
```

GPL	CARD	RUNNING	APPROVED	TRIAL
BPHMUX	1209	028-005-000	028-005-000	-----
BPHMUX	1210	028-005-000	028-005-000	-----
BPHMUX	1309	028-004-000	028-005-000 ALM	-----
BPHMUX	1310	028-005-000	028-005-000	-----

NOTE: Mismatched GPLs should occur only during upgrades or running a trial GPL.

2. Verify GPL Auditing is **ON**. If not enter the following command:

```
chg-gpl:audit=on
```

3. Enter the following command to load the GPL onto the HMUX card:

```
init-flash:code=appr:loc=xxxx
```

where *xxxx* is the HMUX/HIPR card location with the alarm condition in Step 1.

Following is an example of the output using card location 1309:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
FLASH Memory Downloading for card 1309 Started.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
BPHMUX Downloading for card 1309 Complete.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
Command Completed.
```

4. Enter the following command to initialize the HMUX/HIPR.



CAUTION: This command boots the HMUX/HIR processor and brings down the respective IMT bus temporarily (approximately 10 seconds) until the HMUX/HIPR card comes back into service.

```
init-mux:loc=xxxx:bus=y
```

where *xxxx* is the card location and *y* is the bus

NOTE: Allow the card to run for 5 minutes before continuing.

5. Enter the following command to activate the trial GPL loaded onto the card in Step 4:

```
act-flash:loc=xxxx
```

where *xxxx* is the card location used in Step 3

Following is an example of the output using card location 1309:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
FLASH Memory Activation for card 1309 Completed.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 35.0.0
Command Completed.
```

6. Enter the following command to verify the approved GPLs match the running GPLs:

```
rept-stat-gpl:gpl=xxxxxxx
```

where *xxxxxxx* is the GPL (HIPR or BPHMUX) identified in the output.

Following is an example of a BPHMUX output:

```
tekelecstp 03-07-03 16:53:23 EST EAGLE5 35.0.0-55.0.0
GPL Auditing ON
```

Corrective Maintenance

GPL	CARD	RUNNING	APPROVED	TRIAL
BPHMUX	1209	028-005-000	028-005-000	-----
BPHMUX	1210	028-005-000	028-005-000	-----
BPHMUX	1309	028-005-000	028-005-000	-----
BPHMUX	1310	028-005-000	028-005-000	-----

7. If the GPLs match, you have completed this procedure.

If the GPLs do not match, continue with Step 8.

8. Enter the following command determine which cards are in alarm condition (indicated by the acronym ALM in the **rept-stat-gpl** display):

```
rept-stat-gpl
```

9. Note which cards are in an alarm condition and contact the *Customer Care Center*, see page 1-12.
-

0003 - Alarm cleared for GPL

This message indicates that all the cards of a specific type are running the approved GPL and the alarm condition, specified by message “0002 - Card is not running approved GPL” has been cleared.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0003 GPL SYSTEM OAM Alarm cleared for GPL
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0004 - Card is running non-activated GPL

This alarm indicates a card or cards are running a non-activated *Trial* or *Approved* generic program load (GPL). This output is expected when changing a flash GPL. This alarm occurs after a successful download to the card, and the card boots. This is determined by a system audit, which compares the GPL running on each card with the activated version for each card type. If any card(s) are running a GPL other than its activated GPL, an alarm is created. Only one alarm for each card application is displayed. *UAM 0002* might also be produced.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0004 * GPL SYSTEM BPDCM Card is running non-activated GPL
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the release GPLs match the GPLs on the disk:

```
rtrv-gpl
```

NOTE: Mismatched GPLs should occur only during upgrades or running a trial GPL.

2. Enter the following command to determine which cards are in alarm condition (indicated by the acronym ALM in the **rept-stat-gpl** display):

```
rept-stat-gpl
```

3. If the GPLs do not match from Step 1, note which cards are in an alarm condition and contact the *Customer Care Center*, see page 1-12.

0005 - Alarm cleared running non-activated GPL

This message indicates that all the cards of a specific type are running the non-activated GPL and the alarm condition, specified by message "0004 - Card is running non-activated GPL" has been cleared.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
```

Corrective Maintenance

0014.0005 GPL SYSTEM BPDCM Alarm cleared running non-activated GPL

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0008 - Active MASP has become isolated

This messages indicates the active MASP has a fault and the system switched to the standby MASP. This could be caused by the MASP losing a connection to the IMT, a failure with the GPSM-II card, or a card reset.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0008 ** CARD 1113 OAM            Active MASP has become isolated
```

Alarm Level: Major

Recovery

1. Enter the following command to check the status of the IMT:

rept-stat-imt

If the IMT is at fault, verify the IMT cables are connected to the shelf backplane (refer to the *Installation Manual* for cable locations).

2. If the state of the IMT appears good but the GPSM-II boots repeatedly, try reseating the GPSM-II card. If the problem persists, replace the GPSM-II card.
See Appendix A, *Card Removal/Replacement Procedures*.
 3. If the trouble does not clear, obtain any obituary reports and contact the *Customer Care Center*, see page 1-12.
-

0009 - MASP became active

This message indicates which MASP is active.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
* 0014.0009 CARD 1113 OAM MASP became active
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault or condition has been corrected. No further action is necessary.

0010 - MASP became standby

This message indicates which MASP is standby.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0012.0010 CARD 1113 OAM MASP became standby
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault or condition has been corrected. No further action is necessary.

0011 - Entering forced simplex mode

This message indicates the active OAM card found itself in a forced simplex mode of operation while the active OAM LNP updating option was on (turned on with the **chg-lnpopts:frcsmplx=yes** command). A simplex mode of operation means the active OAM card cannot communicate with its standby OAM card.

In a forced simplex mode, after five minutes LNP updates are allowed to be provisioned on the active OAM only. The active OAM accepts updates, and the standby OAM is not able to receive LNP updates, leaving the standby database in the state of being incoherent, diff level, or unstable.

When the standby OAM eventually resumes communication, the active OAM remains in forced simplex mode until the standby OAM LNP database is repaired from the active OAM. The forced simplex mode is automatically removed following the repair of the standby database.

The forced simplex mode of operation can also be removed with the command **chg-lnpopts:frcsmplx=no**. However, active OAM LNP updates may be prohibited until the standby database is repaired.

Example

```
RLGHNCXA21W 03-08-28 11:02:30 EST EAGLE 35.0.0
** 0100.0011 SYSTEM Entering forced simplex mode
```

Alarm Level: Major

Recovery

1. If you choose to exit forced simplex mode (that is, not allowing LNP updates on the active OAM only), enter the following command to remove the forced simplex status from the LNP options:

```
chg-lnpopts:frcsmplx=no
```

You may elect to stop here, or you may elect to continue with Step 3.

2. If you choose, you may remain in forced simplex mode (accepting LNP updates in the active OAM card without communicating with the standby card) until the standby OAM is replaced, its database is corrected, or communication is restored.

Continue with Step 3.

- When you choose to resume the duplex mode of operation with the active and standby OAM cards, you must restore communications with the standby card and repair the standby LNP database, as required. Enter the following command to verify the databases:

```
rept-stat-db
```

Following is an example of the output:

```
> rept-stat-db

Command Accepted - Processing

      oflnmoxallw 98-10-08 15:56:40 CDT EAGLE 35.0.0
      rept-stat-db
      Command entered at terminal #4.
;

      oflnmoxallw 98-10-08 15:56:40 CDT EAGLE 35.0.0
DATABASE STATUS: >> OK <<
      TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
      C   LEVEL   TIME LAST BACKUP    C   LEVEL   TIME LAST BACKUP
      -----
FD BKUP  Y   342256 98-10-07 00:40:29 CDT  Y   342256 98-10-07 00:40:29 CDT
FD CRNT  N   342374
      MDAL 1117
      -----
```

(Refer to the *Commands Manual* to interpret the output.)

- Check the status of the standby database in the output of the previous step.
 - If the report shows the standby OAM is present, go to Step 7.
 - If the report does not show the standby OAM card to be present, continue to Step 5.

- Enter the following command to initialize the standby OAM card:

```
init-card:loc=xxxx
```

where xxxx is the standby OAM number (1113 or 1115).

- If the problem is still not corrected, reseal the GPSM-II card. If the OAM still does not respond, replace the GPSM-II card.

See Appendix A, *Card Removal/Replacement Procedures*.

- Once the card is known to be operational, if the standby OAM card needs to be repaired, resynchronize the standby card's LNP database with the active OAM card with this command:

```
chg-db:action=repair
```

Corrective Maintenance

8. If you choose to restore the status of the active OAM LNP updating options (especially if you turned it off in Step 1), issue the command:

```
chg-lnpopts:frcsmplx=yes
```

9. If the trouble does not clear, obtain any obituary reports and contact the *Customer Care Center*, see page 1-12.
-

0013 - Card is isolated from the system

This indicates a card has become isolated and is unable to communicate to other cards in the system. This could be caused by a defective card, a power failure occurred on the card, or the system software has ordered a reset.

This also appears when the card has been manually reset by a command.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0013 ** CARD 1113 OAM Card is isolated from the system
      ASSY SN: 102199815a1234
```

Alarm Level: Major

Recovery

1. Enter the following command to check the status of the card.

```
rept-stat-card:loc=x:mode=full
```

where *x* is the card location stenciled on the shelf of the system.

Following is an example of the possible output using card 1106:

```
integrat40 00-05-24 10:37:22 EST EAGLE 35.0.0
CARD  VERSION      TYPE      APPL      PST      SST      AST
1106  021-101-000  TSM      SCCP      IS-NR    Active  -----
ALARM STATUS      = No Alarms.
IMT VERSION       = 021-001-000
PROM VERSION      = 021-001-000
IMT BUS A        = Conn
IMT BUS B        = Conn
CLOCK A          = Active
CLOCK B          = Idle
CLOCK I          = Idle
MBD BIP STATUS   = valid
DB STATUS        = valid
DBD MEMORY SIZE  = 64M
SCCP SERVICE     = 1201, , 1214, 1215, 1217, 1102
```

```

SCCP % OCCUP      = 0%
SLK A   PST       = OOS-MT          LS=1s11234567  CLLI=
SLK B   PST       = OOS-MT          LS=1s11345678  CLLI=
SNM     TVG RESULT = 24 hr: -----, 5 min: -----
SLAN    TVG RESULT = 24 hr: -----, 5 min: -----
SCCP    TVG RESULT = 24 hr: -----, 5 min: -----
Command Completed.

```

-
2. If only one card is isolated, wait to see if the card is recovering. If not, reset the card.
-
3. If resetting the card does not clear the fault, reseal the card.
-
4. If reseating the card does not clear the fault, replace the card.
See Appendix A, *Card Removal/Replacement Procedures*.
-
5. If the alarm still does not clear, contact the *Customer Care Center*, see page 1-12.
-

0014 - Card is present

The card indicated was isolated from the system, but is now communicating with the active MASP. The maintenance software has begun recovery action.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0014    CARD 1201 SS7ANSI   Card is present
          ASSY SN: 102199815a1234

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No immediate action is required. The maintenance software is attempting to recover the card by reinitialization of the card.

Corrective Maintenance

0018 - Exiting forced simplex mode

This UAM indicates that forced simplex mode is being exited. This message results from either the **chg-lnpopts** command turning off the forced simplex mode or the automatic ending of the forced simplex mode after the repair of the standby OAM database.

A forced simplex mode of operation occurs when the active OAM card cannot communicate with its standby OAM card while the active LNP option was on (turned on with the **chg-lnpopts:frcsmplx=yes** command). This mode allows provisioning of LNP updates in the active OAM database when communication is lost with its standby OAM card.

Example

```
RLGHNCXA21W 03-08-28 11:02:30 EST EAGLE 35.0.0
** 0100.0018   SYSTEM      Exiting forced simplex mode
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates either the **chg-lnpopts:frcsmplx=no** command was successfully executed or an automatic response resulted from a successful repair of the standby OAM database. No further action is necessary.

0021 - Clock A for card failed, B normal

This indicates that the A clock signal for the indicated card is not present.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0021 * CARD 1116 OAM  Clock A for card failed, Clock B normal
```

Alarm Level: Minor

Recovery

1. Enter the following command to determine the status of the clock.

```
rept-stat-clk
```

The output indicates how many cards are using the specified clock, and how many cards are reporting fault with the specified clock.

Following is an example of the possible output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
  CARD LOC= 1114 (Active  )   CARD LOC= 1116 (Isolated )
  PRIMARY BITS  = Active     PRIMARY BITS  = -----
  SECONDARY BITS = Idle      SECONDARY BITS = -----
                                PST          SST          AST
  SYSTEM CLOCK  IS-NR        ACTIVE      ALMINH
  # Cards using CLK A = 009   # Cards with bad CLK A = 000
  # Cards using CLK B = 000   # Cards with bad CLK B = 009
  # Cards using CLK I = 000
  Command Completed.
```



CAUTION: Resetting, reseating, or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the **dact-slk** command.

2. If only one card is reporting fault, reset the card.
 3. If the fault has not cleared, reseal the card.
 4. If the fault has not cleared, replace the card.
See Appendix A, *Card Removal/Replacement Procedures*.
 5. If the fault has not cleared, replace the TDM card in MASP A.
 6. If more than one card is reporting fault with the designated clock, check the clock cable connection at the shelf backplane (refer to the *Installation Manual* for cable location). If the clock cable is at fault, replace the clock cable.
 7. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the **act-slk** command.
-

0022 - Clock B for card failed, A normal

This indicates that the B clock signal for the indicated card is not present.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0022 * CARD 1116 OAM Clock B for card failed, Clock A normal
```

Alarm Level: Minor

Recovery

1. Enter the following command to determine the status of the clock.

rept-stat-clk

The output indicates how many cards are using the specified clock, and how many cards are reporting fault with the specified clock.

Following is an example of the possible output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Active )    CARD LOC= 1116 (Isolated )
PRIMARY BITS = Active      PRIMARY BITS = -----
SECONDARY BITS = Idle      SECONDARY BITS = -----
PST          SST          AST
SYSTEM CLOCK IS-NR      ACTIVE  ALMINH
# Cards using CLK A = 009  # Cards with bad CLK A = 000
# Cards using CLK B = 000  # Cards with bad CLK B = 009
# Cards using CLK I = 000
Command Completed.
```



CAUTION: Resetting, reseating, or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the **dact-slk** command.

2. If only one card is reporting fault, reset the card.

3. If the fault has not cleared, reseal the card.

4. If the fault has not cleared, replace the card.
See Appendix A, *Card Removal/Replacement Procedures*.

5. If the fault has not cleared, replace the TDM card in MASP B.

6. If more than one card is reporting fault with a clock, check the clock cable connection at the shelf backplane (refer to the *Installation Manual* for cable location). If the clock cable is at fault, replace the clock cable.
-
7. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the **act-slk** command.
-

0023 - Clocks A and B for card failed

The A and B clock sources for the indicated card are not present.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0023 * CARD 1116 OAM Clocks A and B for card failed
```

Alarm Level: Minor

Recovery

1. Enter the following command to determine the status of the clocks.

rept-stat-clk

The output indicates how many cards are using the specified clocks, and how many cards are reporting fault with the specified clock.

Following is an example of the possible output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Active )   CARD LOC= 1116 (Isolated )
PRIMARY BITS = Active     PRIMARY BITS = -----
SECONDARY BITS = Idle     SECONDARY BITS = -----
PST           SST         AST
SYSTEM CLOCK   IS-NR          ACTIVE    ALMINH
# Cards using CLK A = 009  # Cards with bad CLK A = 000
# Cards using CLK B = 000  # Cards with bad CLK B = 009
# Cards using CLK I = 000
Command Completed.
```



CAUTION: Resetting, reseating, or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the **dact-slk** command.

Corrective Maintenance

2. If the `rept-stat-clk` command indicates both clocks are healthy, reset the affected card.

3. If the fault has not cleared, reseal the affected card.

4. If the fault has not cleared, replace the affected card.
See Appendix A, *Card Removal/Replacement Procedures*.

5. If the BITS clock is not at fault, replace the TDM cards in both MASP A and B.

6. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the following command:

`act-slk:loc=x:port=y`

where *x* is the card location stenciled on the shelf of the system and *y* is the port on the card designated in the `loc` parameter.

7. If the fault has not cleared, contact the *Customer Care Center*, see page 1-12.

0024 - Clock A for card normal

This message indicates that the clock A distribution for the specified card is now normal.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0024 CARD 1116 OAM Clock A for card normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault in the clock A distribution has been cleared. No further action is necessary.

0025 - Clock B for card normal

This message indicates that the clock B distribution for the specified card is now normal.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0025 CARD 1116 OAM Clock B for card normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault in the clock B distribution has been cleared. No further action is necessary.

0026 - Clocks A and B for card normal

This message indicates that clock A and B for the indicated card has returned to a normal state.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0026 CARD 1116 OAM Clocks A and B for card normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

Corrective Maintenance

0033 - Card database has been corrected

This message indicates that the database has been reloaded to the indicated card by system software. This typically occurs when the system software finds the card database is not synchronized with the other cards in the system (incoherent database).

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0033 CARD 1113 OAM Card database has been corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0034 - Card database is inconsistent

This message indicates that the database on the indicated card is not at the same level as the source database level. For more information about database management procedures, refer to the *Database Administration Manual*.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
* 0014.0034 * CARD 1201 LIMDS0 Card database is inconsistent
```

Alarm Level: Minor

Recovery procedure for a non-MASP card



CAUTION: Resetting, reseating, or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the `dact-slk` command.

1. Wait five minutes to see if the card corrects itself.
-

2. Enter the following command to check the database level on the card:

```
rept-stat-db:display=all
```

3. If the problem persists, enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

4. If the card is a LIM, enter the following command to deactivate the slk:

```
dact-slk:loc=xxxx:port=y
```

where *xxxx* is the card location;

y is the port on the card specified in the location parameter.

5. Enter the following command to inhibit each OAP terminal displayed in the output from Step 3:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

6. Enter the following command to change the state of the card to OOS-MT-DSBLD:

```
init-card:loc=xxxx
```

where *xxxx* is the card location stenciled on the shelf of the system.

7. Enter the following command to change the state of the card to IS-NR:

```
alw-card:loc=xxxx
```

where *xxxx* is the card location stenciled on the shelf of the system.

8. If the card is a LIM, enter the following command to activate the slk:

Corrective Maintenance

```
act-slk:loc=xxxx:port=y
```

where *xxxx* is the card location
y is the port on the card specified in the location parameter.

9. After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system).

```
rept-stat-card
```

10. Check the consistency of the card by entering the following command:

```
rept-stat-db:display=except
```

11. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where *x* is the port number.

12. If the problem persists, .
-

Recovery procedure for a MASP card

1. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

2. Enter the following command to inhibit each OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

3. Enter the following command to check the database level on all cards:

```
rept-stat-db:display=all
```

Pay special attention to note the database levels on both the active and standby current partitions and the levels represented on all the network cards. It is important that the database level of the network cards matches the database level of the active MASP.

NOTE: If the database on the OAM is repaired and ends up at a lower level than the network cards, the system must be initialized.

4. If neither database is at the same level as the network cards, .

5. If the message indicates
 - the active fixed disk is inconsistent, continue with Step 6.
 - the standby fixed disk is inconsistent, continue with Step 9.
 - that both fixed disks are inconsistent, continue with Step 14.

6. Enter the following command on the active GPSM-II card to force it to become standby:

```
init-card:loc=xxxx
```

where *xxxx* is the card location stenciled on the shelf of the system.

7. Enter the following command to log back into the system:

```
login:uid=xxxx
```

where *xxxx* is the User ID.

8. Enter the following command to check the database level on all cards:

```
rept-stat-db:display=all
```

Pay special attention to note the database levels on both the active and standby current partitions and the levels represented on all the network cards. It is important that the database level of the network cards matches the database level of the active MASP.

NOTE: If the database on the OAM is repaired and ends up at a lower level than the network cards, the system must be initialized.

9. Enter the following command to copy the current and backup database partitions on the active fixed disk, to the current and backup database partitions on the standby fixed disk

```
chg-db:action=repair
```

After the command is executed, the standby GPSM-II card reboots, the old database data is purged from memory, and the new database is loaded.

Corrective Maintenance

10. After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system):

```
rept-stat-db:display=all
```

- If standby and current active databases are consistent, continue with Step 11 through Step 12.
 - If the current active or standby database is inconsistent, continue with Step 13 and Step 14.
-

11. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where *x* is the port number of the terminals of type OAP from Step 1.

12. For more information on database management, refer to the *Database Administration Manual - System Management*.

STOP! YOU HAVE COMPLETED THIS PROCEDURE.

13. Enter the following command for the inconsistent fixed disk:

```
tst-disk:loc=xxxx
```

where *xxxx* is the location of the inconsistent fixed disk.

When the command completes, continue with Step 14

14. .
-

0035 - Card database is corrupted

This message indicates that the card database has been modified by some unknown process and is not usable. For more information about database management procedures, refer to the *Database Administration Manual*.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0035 * CARD 1113 OAM Card database is corrupted
```

Alarm Level: Minor

Recovery procedure for a non-MASP card



CAUTION: Resetting, reseating, or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the `dact-slk` command.

1. Wait five minutes to see if the card corrects itself.

2. If the problem persists, enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

3. Enter the following command to inhibit each OAP terminal displayed in the output from Step 2:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

4. Enter the following command to reinitialize the indicated card and force the card to load the current level of database.

```
init-card:loc=x
```

where *x* is the card location stenciled on the shelf of the system.

Recovery procedure for a MASP card

1. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

2. Enter the following command to inhibit each OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

3. Enter the following command for each OAP terminal inhibited in Step 2:

```
chg-trm:trm=x:type=none
```

where *x* is the port number.

4. If the message indicates the standby fixed disk is corrupted, continue with Step 6.

If the message indicates the active fixed disk is corrupted, continue with Step 5.

5. Enter the following command on the active GPSM-II card to force it to become standby:

```
init-card:loc=x
```

where *x* is the card location stenciled on the shelf of the system.
Continue with Step 6

6. Enter the following command to copy the current and backup database partitions on the active fixed disk, to the current and backup database partitions on the standby fixed disk

```
chg-db:action=repair
```

After the command is executed, the standby GPSM-II card reboots, the old database data is purged from memory, and the new database is loaded.

7. After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system).

```
rept-stat-card
```

8. Enter the following command for each OAP terminal inhibited in Step 2:

```
chg-trm:trm=x:type=oap
```

where *x* is the port number.

9. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where x is the port number.

10. If the problem persists, contact the *Customer Care Center*, see page 1-12.

0036 - Card backup database has been corrected

This message indicates that the backup database version level and content on the standby MASP is synchronized with the reference database.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0036 CARD 1113 OAM Card backup database has been corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0037 - Card backup database is inconsistent

This message indicates that the backup database version level and/or content on the MASP is not synchronized with the database on the active MASP. This typically occurs if a different level counter, last update day/time-stamp, or contents is detected, or the database is incoherent.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0037 * CARD 1113 OAM Card backup database is inconsistent
```

Alarm Level: Minor

Recovery

1. Enter the following command to confirm both active and standby current databases contain correct and identical information (coherent and consistent):

rept-stat-db

The following is an example of the output from a coherent database.

```
> rept-stat-db

Command Accepted - Processing

oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
rept-stat-db
Command entered at terminal #4.
;

oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
DATABASE STATUS: >> OK <<
      TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
      C  LEVEL    TIME LAST BACKUP    C  LEVEL    TIME LAST BACKUP
-----
FD BKUP  Y   342256 00-10-07 00:40:29 CDT  Y   342256 00-10-07 00:40:29 CDT
FD CRNT  N   342374                      Y   342375
      MDAL 1117
      -----
```

2. Enter the following command to perform a backup (to fixed disk) of both active and standby databases:

chg-db:action=backup:dest=fixed

0038 - Card backup database is corrupted

This message indicates that the backup database has been modified by some unknown process and is no longer usable.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST  EAGLE 35.0.0
* 0014.0038 * CARD 1113 OAM          Card backup database is corrupted
```

Alarm Level: Minor

Recovery

1. Enter the following command to confirm that both active and standby current databases contain correct and identical information (coherent and consistent):

rept-stat-db

The following is an example of the output from a coherent database.

```
> rept-stat-db

Command Accepted - Processing

oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
rept-stat-db
Command entered at terminal #4.
;

oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
DATABASE STATUS: >> OK <<

          TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
          C  LEVEL      TIME LAST BACKUP   C  LEVEL      TIME LAST BACKUP
          -  - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
FD BKUP  Y   342256  00-10-07 00:40:29 CDT  Y   342256  00-10-07 00:40:29 CDT
FD CRNT  N   342374                                     Y   342375
          MDAL 1117
          -  - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

2. Enter the following command to perform a backup (to fixed disk) of both active and standby databases:

chg-db:action=backup:dest=fixed

0039 - GPL has been corrected

All copies of the generic program load are satisfactory.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0039    GPL SYSTEM OAM          GPL has been corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0040 - GPL is corrupted

This message indicates that a generic program load (GPL) has become corrupted. This typically occurs when the system software detects that a generic program load has been unexpectedly modified.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0040 * GPL SYSTEM OAM      GPL is corrupted
```

Alarm Level: Minor

Recovery

1. Enter the following command to determine the status of the system generic program loads:

```
rtrv-gpl
```

This command indicates the generic program loads that have become corrupted.

2. Enter the **chg-gpl** command to reload the generic program load from a system removable cartridge. If the approved GPL is corrupted, insure that the trial GPL is the correct one using **rtrv-gpl** and activate it using the **act-gpl** command.
-

0041 -LSMS bulk load required

This message indicates that the entire system LNP database must be repopulated, either from the LSMS or a backup disk. This process must be started manually.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
```

* C0009.0041 *C LSMS SYSTEM LSMS bulk load required

Alarm Level: Critical

Recovery

Refer to the *LNP Database Synchronization Manual*, for the LSMS Bulk Load procedure.

0042 - LSMS bulk load complete

This message indicates that the alarm condition is removed, the association is reestablished, the LSMS is downloading transactions, and the automatic resynchronization is in progress.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0042 LSMS SYSTEM LSMS bulk load complete
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0043 - Incorrect feature configuration

The HC MIM card is inserted into a slot that is provisioned for configurations not supported. The HC MIM card is also auto-inhibited by the OAM.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0
** 0012.0043 ** CARD 1201 LIMT1 Incorrect feature configuration
HW VERIFICATION CODE: xxx
```

Corrective Maintenance

Alarm Level: Major

Recovery

Review hardware feature requirements and correct the configuration as necessary. The following configuration errors will cause the HC MIM card to auto-inhibit:

- The HC MIM will not support CAS on any E1 ports. Thus, any ports that are provisioned in this configuration will need to be changed.
- Due to temperature requirements of the HC Blade, the HC MIM must operate within a shelf that contains a fan tray.

NOTE: See *Appendix A, Card Removal/Replacement Procedures* for details about replacing cards.

0044 - Real time clock battery low

The battery power in the HC MIM card is low.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0
* 0012.0044 * CARD 1201 LIMT1 Real time clock battery low
```

Alarm Level: Minor

Recovery

Replace the HC MIM card with a spare and call Tekelec for a RMA to send the card back to Tekelec for replacement.

NOTE: See *Appendix A, Card Removal/Replacement Procedures* for details about replacing cards.

0045 - Real time clock battery restored

The HC MIM card has been replaced and the battery power in the HC MIM card is normal.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0  
0012.0045 CARD 1201 LIMT1 Real time clock battery restored
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0046 - Terminal enabled

The indicated terminal has been returned to service and can handle normal user input and output.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0046 TERMINAL 15 Terminal enabled
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

Corrective Maintenance

0047 - Card type not valid for application

This message indicates that a TSM card was replaced by an ASM card. The ASM card is automatically inhibited because it is no longer supported.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0
** 0012.0047 ** CARD 1109 Card type not valid for application
      HW VERIFICATION CODE: xxx
```

Alarm Level: Major

Recovery

Replace the ASM card with the correct version of the TSM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0048 - Terminal failed

The MASP has detected that the terminal is faulty. The maintenance software has removed the terminal from service.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0048 * TERMINAL 15 Terminal failed
```

Alarm Level: Minor

Recovery

1. Verify that the power to the terminal is on and that the terminal is physically connected to the control shelf backplane. If the fault does not clear, disconnect the terminal from the control shelf backplane and connect another terminal (with the same communication attributes as the old terminal) to the same port on the control shelf backplane.
-

2. Enter the following command to verify the communication attributes of the terminal port:

```
rtrv-trm
```

3. If the communication attributes need to be changed, refer to the *Commands Manual* and enter the following command with the appropriate parameters to make the required changes to the communication attributes:

```
chg-trm
```

4. Terminals are connected to ports on the TDM card. Enter the following command to determine which ports are idle:

```
rept-stat-user
```

5. Move the terminal to another port on the TDM card or on the backplane. If the fault does not clear, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0051 - TSC sync is in simplex mode

Due to one or both GPSM-II cards being replaced with MCAPs after the feature bit has been set, the hardware configuration no longer supports the TSC Synchronization feature.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0051 ** CARD 1113 OAM TSC sync is in simplex mode
```

Alarm Level: Major

Recovery

Replace the MCAP(s) with GPSM-II card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

Corrective Maintenance

0052 - TSC sync feature is available

This indicates that the GPSM-II card(s) is now seated in the appropriate slot and is functioning correctly.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0052 CARD 1113 OAM TSC sync feature is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0053 - Standby TDM failure

This message indicates that the communication between the GPSM-II and TDM has failed.

Example

```
station1234 94-03-30 16:28:08 EST EAGLE 35.0.0  
** 0012.0053 ** CARD 1113 OAM Standby TDM failure
```

Alarm Level: Major

Recovery

1. Enter the following command to verify card status:

```
rept-stat-card
```

2. Enter the following command to verify the database status:

```
rept-stat-db
```

3. Replace the failed TDM, that is in IS-ANR state with the backup TDM.

NOTE: If possible, replace the card during the maintenance window.

See Appendix A, *Card Removal/Replacement Procedures*.

0054 - Standby TDM failure cleared

This message indicates that the communication between the GPSM-II and TDM has been reestablished.

Example

```
station1234 94-03-30 16:28:08 EST EAGLE 35.0.0
0012.0054   CARD 1113 OAM           Standby TDM failure cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0055 - Persistent device state tbl corrupt

This message indicates that after attempting an automatic recovery from a first checksum error, a Persistent Device States (PDS) checksum error still exists in the standby System Configuration Manager (SCM). PDS features are disabled.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0055 * CARD 1115 OAM       Persistent device state tbl corrupt
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status of the database:

```
rept-stat-db
```

2. Enter the following command to update the PDS table. This command reinitializes the card and forces the card to load the current level of the database:

```
init-card:loc=xxxx
```

where *xxxx* is the location of the card identified in output.

3. Enter the following command to verify the that the database is the same level as the active OAM:

```
rept-stat-db
```

4. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0056 - Persistent device state tbl diff version

This message indicates that the PDS table version in the standby SCM does not match the PDS table version in the active SCM. PDS features are disabled.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
* 0014.0056 * CARD 1115 OAM Persistent device state tbl diff version
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status of the database:

```
rept-stat-db
```

2. Enter the following command to update the PDS table. This command reinitializes the card and forces the card to load the current level of the database:

```
init-card:loc=xxxx
```

where *xxxx* is the location of the card identified in output.

3. Enter the following command to verify the that the database is the same level as the active OAM:

```
rept-stat-db
```

4. If the problem persists, .
-

0057 - Persistent device state tbl corrected

This indicates that the This message indicates that a problem PDS table has been corrected.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0057      CARD 1115 OAM Persistent device state tbl corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0058 - Critical customer trouble detected

A critical customer trouble has been detected. There are connections on the control shelf backplane for customer detected troubles (CDTs). Each connection is assigned an identifier 1-16. CDT connections 2-4 are applicable to UAM 0058. CDT connections 6-8 are applicable to UAM 0059. CDT connections 10-16 are applicable to UAM 0060. The customer determines the connections on the backplane (these are dry contact closures). The system reports the alarm according to the connection location.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0
```

Corrective Maintenance

*C 0100.0058 *C CDT 4 Critical customer trouble detected

Alarm Level: Critical

Recovery

Follow local procedures for clearing the indicated trouble.

0059 - Major customer trouble detected

A major customer trouble has been detected. There are connections on the control shelf backplane for customer detected troubles (CDTs). Each connection is assigned an identifier 1-16. CDT connections 2-4 are applicable to UAM 0058. CDT connections 6-8 are applicable to UAM 0059. CDT connections 10-16 are applicable to UAM 0060. The customer determines the connections on the backplane (these are dry contact closures). The system reports the alarm according to the connection location.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0
** 0100.0059 ** CDT 8 Major customer trouble detected
```

Alarm Level: Major

Recovery

Follow local procedures for clearing the indicated trouble.

0060 - Minor customer trouble detected

A minor customer trouble has been detected. There are connections on the control shelf backplane for customer detected troubles (CDTs). Each connection is assigned an identifier 1-16. CDT connections 2-4 are applicable to UAM 0058. CDT connections 6-8 are applicable to UAM 0059. CDT connections 10-16 are applicable to UAM 0060. The customer determines the connections on the backplane (these are dry contact closures). The system reports the alarm according to the connection location.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0
* 0100.0060 * CDT 16 Minor customer trouble detected
```

Alarm Level: Minor

Recovery

Follow local procedures for clearing the indicated trouble.

0061 - Customer trouble detected

A customer trouble has been detected.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 ESTEAGLE 35.0.0
0100.0061 CDT 11 Customer trouble detected
```

Alarm Level: No alarm condition. The message is informational.

Recovery

This message indicates that a customer-defined trouble is detected. Follow local procedures to clear the trouble.

Corrective Maintenance

0062 - Customer trouble cleared

A customer trouble has been cleared.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0  
0100.0062 CDT 11 Customer trouble cleared
```

Alarm Level: No alarm condition. The message is informational.

Recovery

This message indicates that a customer-defined trouble is cleared. No action is necessary.

0063 - Critical holdover clock trbl detected

A critical trouble has been detected with the holdover clock. This could include a problem with the reference input and stratum clock cards.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0  
*C 0100.0063 *C CLOCK Critical holdover clock trbl detected
```

Alarm Level: Critical

Recovery

Check for any visual alarms. Note any visual alarms and refer to Appendix C, *Holdover Clock Troubleshooting Procedures* to perform the corrective action procedures.

0064 - Major holdover clock trouble detected

A major trouble has been detected with the holdover clock. This could include a problem with the reference input and/or stratum clock cards.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0
** 0100.0064 ** CLOCK Major holdover clock trouble detected
```

Alarm Level: Major

Recovery

Check for any visual alarms. Note any visual alarms and refer to Appendix C, *Holdover Clock Troubleshooting Procedures* to perform the corrective action procedures.

0065 - Minor holdover clock trouble detected

A minor trouble has been detected with the holdover clock. This could include a problem with the reference input and/or stratum clock cards.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0
* 0100.0065 * CLOCK Minor holdover clock trouble detected
```

Alarm Level: Minor

Recovery

Check for any visual alarms. Note any visual alarms and refer to Appendix C, *Holdover Clock Troubleshooting Procedures* to perform the corrective action procedures.

Corrective Maintenance

0066 - Holdover clock trouble cleared

A problem with the holdover clock has been corrected.

Example

```
RLGHNCXA21W 96:07:02 11:02:30 EST EAGLE 35.0.0  
0100.0066      CLOCK Holdover clock trouble cleared
```

Alarm Level: No alarm condition. The message is informational.

Recovery

This message indicates that a problem with the holdover clock has been cleared.

0077 - Card temperature is critical lvl:T2

The HC MIM card has reached an operating temperature that is above the operational limit.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
*C 0100.0077 *C CARD 1102 LIMT1 Card temperature is critical lvl:T2
```

Alarm Level: Critical

Recovery



WARNING: There is a very limited time to solve this problem. Once the card exceeds its operation limit, all the links on the HC MIM card will be blocked (ACT-LPO), causing the links to go into local processor outage. All traffic on the links blocked is re-directed elsewhere in the system (based on the current route provisioning).

1. Verify that the fan assembly located in that shelf is working properly.
 - Check to make sure there is both A and B power.

- Check the fans.
- Check the fan controller card and verify that all LEDs are green.

For proper operation (as a minimum B power must be present and good fans for fan 2 and fan 3 must be installed before removing the controller).

- Replace any hardware in the fan assembly that is not functioning properly.
- Replace the fan tray only after checking power, fans, and control card.
Contact the *Customer Care Center*, see page 1-12 for assistance.

The hierarchy of maintenance activity is based on Table 3-19. See Appendix A, *Card Removal/Replacement Procedures*, section Fan Assembly P/N 890-0001-xx for replacement procedures.

Table 3-19. Maintenance Activity Hierarchy

Condition	Cntrl LED	FAN 1 LED	FAN 2 LED	FAN 3 LED	Alarm Status	Actions
Normal Operation	Green	Green	Green	Green	No Alarm**	None
A power feed fail	Blink	RED			Alarm*	Check the fuse, the power source, and cables
Interconnect card OR circuit fail	Blink		RED		Alarm*	Check the fuse, the power source, and cables
B power feed fail	Blink			RED	Alarm*	Check the fuse, the power source, and cables
Fan 1 fail	Green	RED			Alarm*	Make sure that there is A power Make sure that there is B power and that Fan 2 and Fan 3 are operating properly. Replace the fan.
Fan 2 fail	Green		RED		Alarm*	Make sure that there is both A and B power Make sure that Fan 1 and Fan 3 are operating properly Replace the fan
Fan 3 fail	Green			RED	Alarm*	Make sure that there is B power Make sure that there is A power and that Fan 1 and Fan 2 are operating properly Replace the fan
Fan 1 Removed	Green	Blink			Alarm*	Make sure that the fan is seated properly Replace the fan

Corrective Maintenance

Table 3-19. Maintenance Activity Hierarchy (Continued)

Condition	Cntrl LED	FAN 1 LED	FAN 2 LED	FAN 3 LED	Alarm Status	Actions
Fan 2 Removed	Green		Blink		Alarm*	Make sure that the fan is seated properly Replace the fan
Fan 3 Removed	Green			Blink	Alarm*	Make sure that the fan is seated properly Replace the fan
Controller card partial fail	RED				Alarm*	Make sure there is both A and B power. Make sure the fans are working properly Remove Fan 1 Replace the Fan Tray Controller
Controller card fail	OFF	OFF	OFF	OFF	Alarm*	Make sure there is both A and B power. Make sure the fans are working properly Remove Fan 1. Replace the Fan Tray Controller
Interconnect Failure						replace shelf
<p>Notes:</p> <ul style="list-style-type: none"> • *If there is no alarm for this condition, it is likely that the relay on the Interconnect card has failed (opened) • **If there is an alarm when all 4 LEDs are green, it is likely that the relay on the Interconnect card has failed (closed) • Try replacing the controller before replacing the fan tray 						

-
2. If the fan unit is working properly, employ additional cooling methods to the card reporting a high-operating \temperature.
-
3. This Critical Temperature Alarm will remain in the system until the operational temperature of the HC MIM card (HC Blade) goes below the critical temperature threshold.
-
4. If this procedure did not clear the fault, contact the *Customer Care Center*, see page 1-12.
-

0078 - Card temperature exceeds nominal lvl:T1

The HC MIM card has reached an operating temperature that is above the pre-defined limit.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0078 ** CARD 1102 LIMT1 Card temperature exceeds nominal lvl:T1
```

Alarm Level: Major

Recovery



WARNING: There is a very limited time to solve this problem. Once the card exceeds its operation limit, all the links on the HC MIM card will be blocked (ACT-LPO), causing the links to go into local processor outage. All traffic on the links blocked is re-directed elsewhere in the system (based on the current route provisioning).

1. Enter the following command to verify the temperature threshold defaults are 75 degrees Celsius and 82 degrees Celsius:

```
rtrv-th-alm
```

If it is not, go to Step 2. If it is, go to Step 3.

2. The threshold can be reset by entering the following command:

```
chg-th-alm:thermallvlc=xxxx
```

where: xxxx is temperature.

3. Verify that the fan assembly located in that shelf is working properly.
 - Check to make sure there is both A and B power.
 - Check the fans.
 - Check the fan controller card and verify that all LEDs are green.

For proper operation (as a minimum B power must be present and good fans for fan 2 and fan 3 must be installed before removing the controller).

Corrective Maintenance

- Replace any hardware in the fan assembly that is not functioning properly.
- Replace the fan tray only after checking power, fans, and control card. Contact the *Customer Care Center*, see page 1-12 for assistance.

The hierarchy of maintenance activity is based on Table 3-19. See Appendix A, *Card Removal/Replacement Procedures*, section Fan Assembly P/N 890-0001-xx for replacement procedures.

Table 3-20. Maintenance Activity Hierarchy

Condition	Cntrl LED	FAN 1 LED	FAN 2 LED	FAN 3 LED	Alarm Status	Actions
Normal Operation	Green	Green	Green	Green	No Alarm**	None
A power feed fail	Blink	RED			Alarm*	Check the fuse, the power source, and cables
Interconnect card OR circuit fail	Blink		RED		Alarm*	Check the fuse, the power source, and cables
B power feed fail	Blink			RED	Alarm*	Check the fuse, the power source, and cables
Fan 1 fail	Green	RED			Alarm*	Make sure that there is A power Make sure that there is B power and that Fan 2 and Fan 3 are operating properly. Replace the fan.
Fan 2 fail	Green		RED		Alarm*	Make sure that there is both A and B power Make sure that Fan 1 and Fan 3 are operating properly Replace the fan
Fan 3 fail	Green			RED	Alarm*	Make sure that there is B power Make sure that there is A power and that Fan 1 and Fan 2 are operating properly Replace the fan
Fan 1 Removed	Green	Blink			Alarm*	Make sure that the fan is seated properly Replace the fan
Fan 2 Removed	Green		Blink		Alarm*	Make sure that the fan is seated properly Replace the fan
Fan 3 Removed	Green			Blink	Alarm*	Make sure that the fan is seated properly Replace the fan

Table 3-20. Maintenance Activity Hierarchy (Continued)

Condition	Cntrl LED	FAN 1 LED	FAN 2 LED	FAN 3 LED	Alarm Status	Actions
Controller card partial fail	RED				Alarm*	Make sure there is both A and B power. Make sure the fans are working properly Remove Fan 1 Replace the Fan Tray Controller
Controller card fail	OFF	OFF	OFF	OFF	Alarm*	Make sure there is both A and B power. Make sure the fans are working properly Remove Fan 1. Replace the Fan Tray Controller
Interconnect Failure						replace shelf
Notes: <ul style="list-style-type: none"> • *If there is no alarm for this condition, it is likely that the relay on the Interconnect card has failed (opened) • **If there is an alarm when all 4 LEDs are green, it is likely that the relay on the Interconnect card has failed (closed) • Try replacing the controller before replacing the fan tray 						

-
4. If the fan unit is working properly, employ additional cooling methods to the card reporting a high-operating \ temperature.
-
5. If the running temperature of the HC MIM exceeds its operational limit, UAM # 0077 is generated, and the links go into Local Processor Outage (LPO).
-
6. This Temperature Alarm will remain in the system until the operational temperature of the HC MIM card (HC Blade) returns to normal levels.
-
7. If performing the steps in this procedure did not clear the fault, contact the *Customer Care Center*, see page 1-12.
-
8. If the threshold was changed in Step 2, enter the following command to reset the threshold to the original setting:


```
chg-th-alm:thermallv1c=xxxx
```

 where: xxxx is temperature.
-

Corrective Maintenance

0079 - Card temperature again at nominal levels

The operational temperature of the HC MIM (HC Blade) has returned to normal levels.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0079 CARD 1102 LIMT1 Card temperature again at nominal levels
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0082 - Alarm in Fuse panel

A blown fuse has been detected in the fuse panel located on top of the designated frame.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
** 0100.0082 ** FUSE PANEL 11xx Alarm in Fuse panel
```

Alarm Level: Major

Recovery

1. Locate the fuse and alarm panel (FAP) indicated in the alarm message.

2. Look at the set of fuses and find the fuse with the “flag” standing out. This indicates the fuse is blown. Replace the fuse with a GMT 3 amp or 1 amp (depending on the type being replaced). See the *Installation Manual* for the correct fuse type.



CAUTION: Arbitrarily removing a good fuse will cause all cards serviced by the removed fuse to fail. Verify the fuse output before pulling a fuse that appears to be good.

3. If no fuses appear to be blown, use a VOM and measure the voltage outputs on the rear of the panel (refer to the *Installation Manual* for voltage test points).
-

4. If the fuse blows again, visually inspect the shelf backplanes for shorts or metallic debris.
-

5. If nothing can be found visually, put all cards serviced by the affected fuse out of service with the following command:

rmv-card:loc=x

where *x* is the card location stenciled on the shelf of the system.

6. Unplug the cards serviced by the affected fuse.
-

7. Replace the fuse.
-

8. Plug in each card one at a time. As each card is plugged in, verify the fuse does not blow. When the fuse does blow, replace the card just plugged in.
-

9. Replace the fuse again.
-

10. Continue plugging in the remaining cards, verifying the fuse does not blow with each card. Each time the fuse does blow, replace the card and continue.

There may be more than one card at fault. If you encounter a card which blows the fuse, do not stop the procedure. Continue until all cards have been plugged in.

See Appendix A, *Card Removal/Replacement Procedures*.

11. If all the cards are plugged in and the fault has cleared, place the affected cards back into service by entering the following command:

rst-card:loc=x

where *x* is the card location stenciled on the shelf of the system.

12. If this does not clear the fault, contact the *Customer Care Center*, see page 1-12.
-

Corrective Maintenance

0083 - Fuse Panel alarm has cleared

This indicates that the fuse alarm has been cleared.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0083 FUSE PANEL 11xx Fuse Panel alarm has cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0084 - IP Connection Unavailable

IP⁷ system: This message indicates that an IP application socket is out of service due to a IP link down (Ethernet problem) or due to the DSM card.

EAGLE 5 ISS system: This indicates that an IP link is down. The link may be either the external MCP (Measurements Collection and Polling) external customer link or a DSM (Database Services Module) to MPS link.

Example

```
RLGHNCXA03W 99-04-10 16:28:08 EST EAGLE 35.0.0
** 0046.0084 ** DLK 1217,B IP Connection Unavailable
```

Alarm Level: Major

Recovery procedure for IP⁷

1. Run System Health Check.

Reference: "System Health Check Procedure".

If you cannot login, continue with Step 4.

2. Check the remote device and network connection. In order to do this, the card location must be determined from the UAM message:
 - Using the **rtrv-ip-host** command with the local host name (**host**), the IP address is displayed.
 - Using the **rtrv-ip-lnk** command with no parameters provides output that can be searched.
 - Search in the output for the IP address which then has an associated card location (**loc**) displayed. Use this card location in the steps below.

Using the remote hostname, use the **pass:loc=xxxx:cmd="ping hostname"** command to test the TCP/IP connection. Where *xxxx* is the card location of the DSM card indicated above. If the **ping** command fails, perform the following checks:

- Check the remote host hardware and software.
 - Use your company procedures to check the network.
 - Check cable connections at the DSM card and at the remote host.
-

3. If the DSM card is OOS-MT, do the following, using the **rept-stat-card** command to check card for IS-NR state after each action:
 - a. Reinitialize card using the **init-card** command
 - b. Reseat the MDAL card.
 - c. Replace the DSM card.

See Appendix A, *Card Removal/Replacement Procedures*.

4. If the alarm is not cleared, contact the *Customer Care Center*, see page 1-12.
-

Recovery procedure for EAGLE 5 ISS

For a failure with the external OAP link (as indicated in the alarm message by location **OAP A** or **OAP B**), use the following procedure:

1. Check the physical connection for the Ethernet cable connected to port E0. Reconnect as necessary.
 2. Check the connection(s) for this Ethernet link at the external equipment. Reconnect as necessary.
-

Corrective Maintenance

3. If the site is LNP-equipped, verify that this Ethernet link is not providing connectivity to the LSMS.
-

4. Remove and check the Ethernet cable.
-

5. If the above steps do not clear the fault, contact the *Customer Care Center*, see page 1-12.

For a DCM to OAP link failure (indicated in the alarm message by **DCM A** or **DCM B**), use the following steps:

6. Check Ethernet connections for the indicated DCM at both the DCM and the OAP. Reconnect as necessary.
-

7. Check and/or replace the Ethernet cable between the indicated DCM and its OAP.
-

8. If a spare DCM is on hand, replace the DCM.
-

9. If the above steps do not clear the fault, contact the *Customer Care Center*, see page 1-12.
-

0085 - IP connection available

IP⁷ system: This message indicates that for an IPLIM or SS7IPGW link, one or more sockets have been opened for SS7 traffic.

EAGLE 5 ISS system: This indicates that a previously broken link with either the external OAP (external customer link) or between the DCM card and the OAP now exists and is functioning properly. This UAM is also used to indicate that a previously broken link between the EPAP and DSM card is now functioning properly.

Example

```
station1234 99-03-30 16:28:08 EST EAGLE 35.0.0
3582.0085 DLK 1217,B IP Connection Available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0086 - IP Connection Congested

This message indicates that an IP application socket is congested.

NOTE: IP Connection UAMs 0086 (Congested), 0535 (Restricted), and 0536 (Excess Retransmits) conditions can occur simultaneously. However, only one alarm per device can be displayed at a time. If two or more are present, the display of these alarms is prioritized as follows:

- 0086 - IP Connection Congested
- 0536 - IP Connection Excess Retransmits
- 0535 - IP Connection Restricted

Example

```
RLGHNCXA03W 99-04-10 16:28:08 EST EAGLE 35.0.0.0
0046.0086 * IP7 LONGSOCKETNAME1 IP Connection Congested
```

Alarm Level: Minor

Recovery

1. Use your company procedures to check the network.
-
2. Reports on status can be obtained for each DCM card with the following commands:
 - **rept-stat-applsock** displays the status of the IP application sockets
 - **rept-stat-ls** displays the status of the MTP linksets
 - **rept-stat-slk** displays the status of the MTP signaling links
 - **pass:loc=xxxx:cmd="sockrftt"** displays the application socket statistical data
 - **pass:loc=xxxx:cmd="sockstate"** displays TALI state machine history for sockets

Corrective Maintenance

- `pass:loc=xxxx:cmd="netstat -i"` displays TCP/IP network statistical information for all interfaces
 - `pass:loc=xxxx:cmd="netstat -p tcp"` displays TCP/IP network statistical information for the transmission control protocol
 - `pass:loc=xxxx:cmd="netstat -p udp"` displays TCP/IP network statistical information for the user datagram protocol
 - `pass:loc=xxxx:cmd="netstat -p ip"` displays TCP/IP network statistical information for the internet protocol
 - `pass:loc=xxxx:cmd="netstat -p icmp"` displays TCP/IP network statistical information for the internet control message protocol
 - `pass:loc=xxxx:cmd="netstat -m"` displays TCP/IP network statistical information for buffer pools
-

3. Contact the *Customer Care Center*, see page 1-12.

0087 - IP Connection manually removed

This message indicates that an IP application socket has been manually removed from the system.

Example

```
RLGHNCXA03W 99-04-10 16:28:08 EST EAGLE 35.0.0.0  
0046.0087 IP7 LONGSOCKETNAME1 IP Connection manually removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

0088 - Clocks A and B TSCs are out of sync

It was detected by the OAM that clocks A and B have been out of synch for a excessive period of time. This alarm indicates a hardware failure in the GPSM-II.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0088 ** CARD 1113 EOAM   Clocks A and B are out of sync
```

Alarm Level: Major

Recovery

1. Check the status of the GPSM-II card by entering the following command:

```
rept-stat-card:loc=xxxx
```

where *xxxx* is the card location in the output.

2. Reseat the GPSM-II card.

3. If the problem persists, replace the GPSM-II card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0089 - Clocks A and B TSCs are resynchronized

A previous GPSM-II card fault is cleared.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0089   CARD 1113 EOAM   Clocks A and B TSCs are resynchronized
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

Corrective Maintenance

0092 - MDAL not responding

This message indicates a problem with the maintenance disk and alarm card (MDAL).

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0092 *C CARD 1117 MDAL MDAL not responding
```

Alarm Level: Critical

Recovery

1. Check the status of the MDAL card by entering the following command:

```
rept-stat-card:loc=x
```

where *x* is the card location stenciled on the shelf of the system.

2. Following is an example of the output using card location 1117:

```
RLGHNCXA03W 00-09-27 16:43:42 EST
CARD  VERSION  TYPE  APPL  PST  SST  AST
1117  -----  MDAL  -----  OOS-MT  Isolated  -----
Command Completed.
```

3. Reseat the MDAL card.
 4. If the problem persists, replace the MDAL card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0093 - MDAL alarm cleared

A previous maintenance disk and alarm card (MDAL) card fault is cleared.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0093 CARD 1117 MDAL MDAL alarm cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0096 - Card has been reloaded

The indicated card has been reinitialized and reloaded with the appropriate data. This occurs as a result of a manual reset or software maintenance intervention.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0096 CARD 1218 SS7ANSI Card has been reloaded
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Look for other reports associated with the indicated card. If an obituary report exists, the card malfunctioned. If this happens continuously, replace the defective card. If this is only an occasional condition, contact the *Customer Care Center*, see page 1-12.

See Appendix A, *Card Removal/Replacement Procedures*.

0097 - IMT allowed

The IMT bus has been returned to service.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0097 IMT SYSTEM IMT allowed
Card 1101, 1102, 1107, 1108
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0098 - IMT inhibited

The IMT bus has been removed from service by using the `rmv-imt:bus=x` command. The bus is no longer available to carry traffic.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0098    IMT SYSTEM      IMT inhibited
              Card 1101, 1102, 1107, 1108
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the bus is not inhibited for maintenance purposes. If the bus has been inhibited for maintenance purposes, consult with the technician responsible before placing it back into service.



CAUTION: The IMT bus should not be left inhibited, as this may affect system performance.

2. If the IMT bus has not been inhibited for maintenance, or the maintenance is complete, enter the following command to place the IMT back into service:

```
rst-imt:bus=x
```

where *x* is the IMT bus to be returned to service.

0099 - Incompatible HW for provisioned slot

An MPL card is in a slot provisioned as a DCM card running either IPLIM, IPLIMI, or SS7IPGW GPLs. The card is automatically inhibited.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0099 ** CARD 1201 SS7ANSI Incompatible HW for provisioned slot
HW VERIFICATION CODE: xxx

```

Alarm Level: Major**Recovery**

-
1. If this message contains the optional line 'HW VERIFICATION CODE: xxx':
 - Go to Appendix F, *Auto-Inhibit HW Verification Codes* and decode the xxx value in Table F-1. Correct the indicated problem.

A card with Verification Code 002, 003, 004, or 102 may possibly begin to boot continually before this alarm is displayed.
 - After correcting the problem, the card will be in out-of-service maintenance-disabled state (OOS-MT-DSBLD). Restore the card back to in-service normal state (IS-NR) with the **alw-card** command.
-
2. If this message does not contain the optional line 'HW VERIFICATION CODE: xxx', perform either of the following steps:
 - Replace the MPL card with a DCM card.

See Appendix A, *Card Removal/Replacement Procedures*.

OR
 - Re-provision the slot for a LIMDS0 card. Refer to the *Database Administration Manual - SS7* for the correct procedures.
-

0102 - Motherboard BIP invalid

The motherboard in the location indicated has an invalid Board ID Prom (BIP).

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0102 * CARD 1201 SS7ANSI Motherboard BIP invalid

```

Alarm Level: Minor

Recovery

1. The indicated card must be reprogrammed. Contact the *Customer Care Center*, see page 1-12. You will need to know the part number, revision level, and serial number of the card.
 2. The card can be reprogrammed with instructions from Tekelec Technical Services, or Tekelec Technical Services can dial into the system and reprogram the card remotely.
-

0103 - Motherboard BIP valid

The Board ID Prom (BIP) for the specified motherboard is correctly programmed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0103 CARD 1201 SS7ANSI Motherboard BIP valid
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0106 - IMT Bus alarm cleared

The specified IMT bus has recovered from a fault.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0106 IMT BUS A IMT Bus alarm cleared  
Card 1101, 1102, 1107, 1108
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0107 - Minor IMT failure detected

A minor fault has been detected on one of the IMT buses. A minor fault consists of at least one card fault but no more than two card faults.

Example

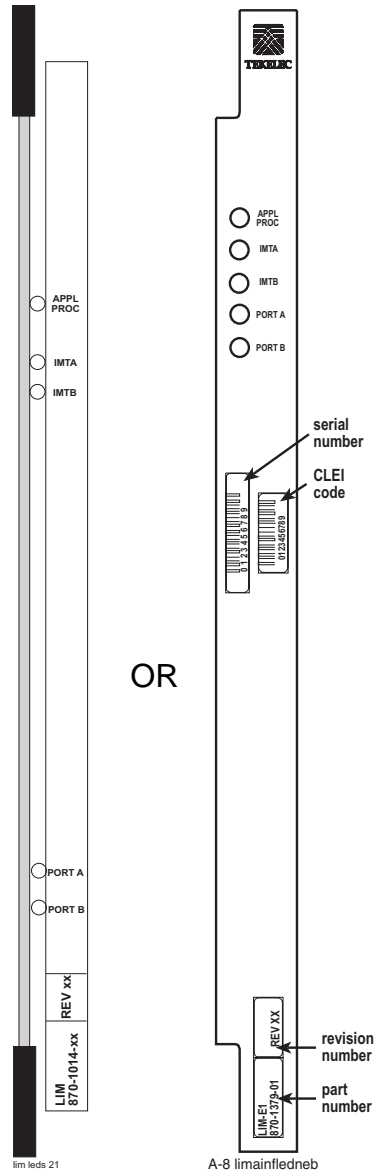
```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0107 * IMT BUS A          Minor IMT failure detected
                Card 1101, 1102
```

Alarm Level: Minor

Recovery

1. Visually check the IMT LEDs on the front of the cards. A red LED or LEDs denotes an IMT fault. If the top LED of the pair is red, there is a fault on IMT A. If the bottom LED is red, there is a fault on IMT B. See Figure 3-11.

Figure 3-11. Card LEDs



2. Note the card location or locations for cards with a red LED(s).
3. Using the card location(s) noted in Step 2, enter the following command to connect the card back to the IMT:

conn-imt : loc = x : bus = y

where *x* is the card location stenciled on the shelf of the system and *y* is the IMT bus to be returned to service.

The following message appears using card location 1106 and IMT bus A:

```
RLGHNCXA03W 00-02-07 11:02:30 EST EAGLE 35.0.0
Connect IMT Bus A command issued to card 1106
```

4. If the fault does not clear, reseal the affected card.



WARNING: Reseating or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the `dact-slk` command.

5. If the fault does not clear, replace the affected card.
-

6. If the fault does not clear, replace the IPMX card servicing the affected card.



WARNING: Replacing an IPMX card causes the IMT to go down. (IPMX in Slot 09 affects IMT A and IPMX in Slot 10 affects IMT B.) Do not perform this step if the other bus also has a fault. Contact the *Customer Care Center*, see page 1-12.

7. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the `act-slk` command.
-

8. If these steps do not clear the fault, Contact the *Customer Care Center*, see page 1-12.

See Appendix A, *Card Removal/Replacement Procedures*.

0108 - Major IMT failure detected

A major fault has been detected on one of the IMT buses. A major fault consists of three or more faults on the IMT bus.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0108 ** IMT BUS A Major IMT failure detected
Card 1101, 1102, 1107, 1108
```

Alarm Level: Major

Recovery

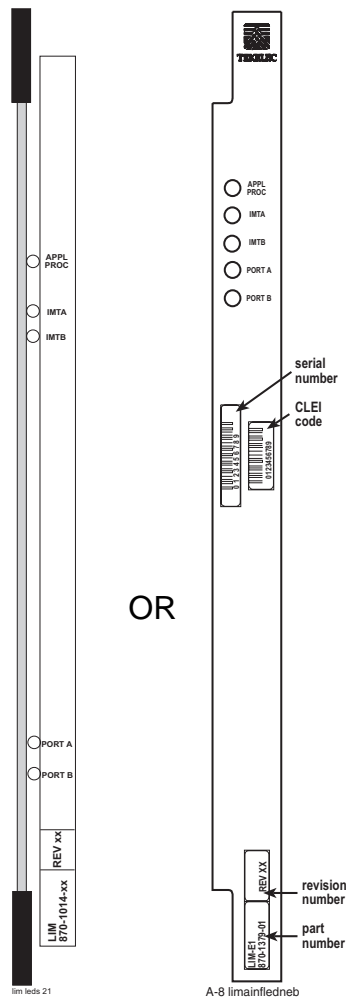
1. Enter the following command to check the status of the IMT:

rept-stat-imt

If the entire IMT is down, continue with Step 6

2. Visually check the IMT LEDs on the front of the cards. A red LED or LEDs denotes an IMT fault. If the top LED of the pair is red, there is a fault on IMT A. If the bottom LED is red, there is a fault on IMT B. See Figure 3-12.

Figure 3-12.Card LEDs



3. Note the card location or locations for cards with a red LED(s).
-

- Using the card location(s) noted in Step 3, enter the following command to connect the card(s) back to the IMT:

```
conn-imt:loc=x:bus=y
```

where x is the card location stenciled on the shelf of the system, and y is the IMT bus to be returned to service.

The following message appears using card location 1106 and IMT bus A:

```
RLGHNCXA03W 00-02-07 11:02:30 EST EAGLE 35.0.0
Connect IMT Bus A command issued to card 1106
```

- If the connection command is successful, the following message appears:

```
RLGHNCXA03W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0006 IMT BUS A Card connected to IMT
```

- If the fault does not clear, enter the following command:

```
inh-imt:bus=x
```

where x = faulty IMT bus.



WARNING: This command removes the faulty IMT bus from service, causing all cards to disconnect from the designated bus. Step 8 must be completed once this step (6) is performed. If the technician has any questions about using this command, contact the *Customer Care Center*, see page 1-12.

- Enter the following command to test the IMT bus:

```
tst-imt:bus=x
```

where x = the inhibited IMT bus.

An example of the output follows:

```
RLGHNCXA03W 97-09-27 12:47:07 EST EAGLE 35.0.0
IMT Fault Isolation Bus B
Fault Location Probable Cause Failure(s)
Card 1201 Card 1201 Pass-through Test Failed
Card 1301 Card 1301 Pass-through Test Failed
```

NOTE: When `tst-imt` completes, either through normal termination of the command or because the command is aborted, Step 8 **MUST** be completed.

- Enter the following command to change the state of inhibited IMT to IS-ANR:

```
alw-imt:bus=x
```

where x = the inhibited IMT bus.

9. Reseat the affected card(s). Probable causes are listed in order of most probable to least probable. The listed components should be reseated in order listed by the output of the `tst-imt` command.



WARNING: Reseating or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the `dact-slk` command.

10. If the fault does not clear, replace the affected card(s). Probable causes are listed in order of most probable to least probable. The listed components should be replaced in order listed by the output of the `tst-imt` command.
-

11. If the fault does not clear, replace the IPMX card servicing the affected card(s).



CAUTION: Replacing an IPMX card causes the IMT to go down. (IPMX in Slot 09 affects IMT A and IPMX in Slot 10 affects IMT B.)

12. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the `act-slk` command.
-

13. If these steps do not clear the fault, contact the *Customer Care Center*, see page 1-12.

See Appendix A, *Card Removal/Replacement Procedures*.

0109 - All IMT System level alarms cleared

Both IMT busses are functioning.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0109 IMT SYSTEM All IMT System level alarms cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0110 - Failure detected on one IMT bus

A fault has been detected on one IMT bus.

Example

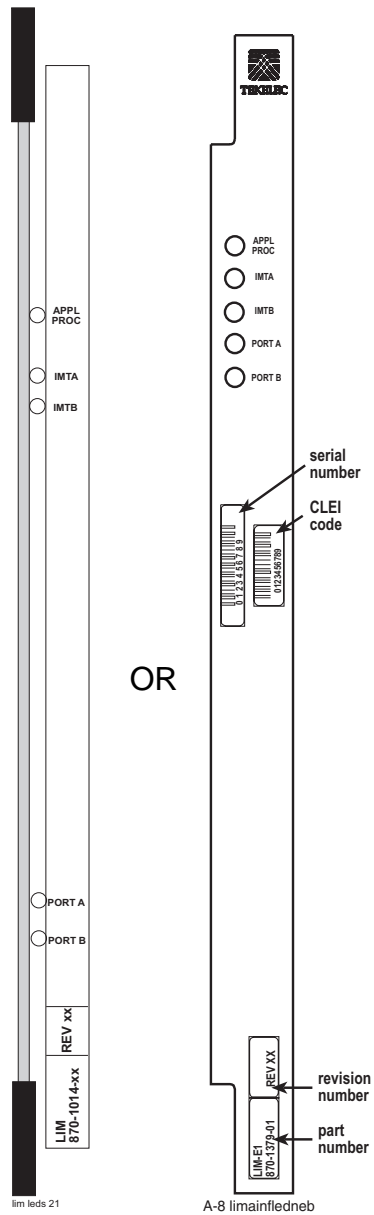
```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
* 0100.0110 * IMT SYSTEM          Failure detected on one IMT bus
```

Alarm Level: Minor

Recovery

1. Visually check the IMT LEDs on the front of the cards. A red LED or LEDs denotes an IMT fault. If the top LED of the pair is red, there is a fault on IMT A. If the bottom LED is red, there is a fault on IMT B. See Figure 3-13.

Figure 3-13. Card LEDs



2. Note the card location or locations for cards with a red LED(s).
3. Using the card location(s) noted in Step 2, connect the card back to the IMT with the command **conn-imt**. For example, enter:

conn-imt : loc = x : bus = y

where x is the card location stenciled on the shelf of the system and y is the IMT bus to be returned to service.

The following message appears using card location 1106 and IMT bus A

```
RLGHNCXA03W 00-02-07 11:02:30 EST EAGLE 35.0.0
Connect IMT Bus A command issued to card 1106
```

4. If the connection command is successful, the following message appears:

```
RLGHNCXA03W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0006 IMT BUS A Card connected to IMT
```

5. If the connection command is not successful and the fault does not clear, reseal the card



WARNING: Resetting, reseating, or replacing a LIM will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the `dact-slk` command.

6. If the fault does not clear, replace the affected card.
-

7. If the fault does not clear, replace the IPMX card servicing the affected card.



WARNING: Replacing an IPMX card causes the IMT to go down. (IPMX in Slot 09 affects IMT A and IPMX in Slot 10 affects IMT B.) Do not perform this step if the other bus also has a fault. contact the *Customer Care Center*, see page 1-12.

8. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the `act-slk` command.
-

9. If these steps do not clear the fault, contact the *Customer Care Center*, see page 1-12.

See Appendix A, *Card Removal/Replacement Procedures*.

0111 - Failure on both IMT A and IMT B

A major fault occurred on one IMT bus and a minor fault has occurred on the other. Or, there is a minor fault on both IMT buses. A minor fault occurs when one or two cards are disconnected from the IMT bus. A major fault occurs when three or more cards are disconnected from the IMT bus.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0111 ** IMT SYSTEM          Failure on both IMT A and IMT B
```

Alarm Level: Major

Recovery

Check the status of the IMTs by entering the **rept-stat-imt** command. contact the *Customer Care Center*, see page 1-12.

0112 - Major failures detected on both IMTs

Major faults have been detected on both IMT buses.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* C0100.0112 *C IMT SYSTEM          Major failures detected on both IMTs
```

Alarm Level: Critical

Recovery

Check the status of the IMTs by entering the **rept-stat-imt** command. contact the *Customer Care Center*, see page 1-12.

0113 - Clock alarm(s) cleared

All primary and secondary clock sources are functioning.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0113    CLOCK SYSTEM          Clock alarm(s) cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0114 - System IP TPS threshold exceeded

This message indicates that the actual system transaction rate is approaching the current System IPGWx capacity value.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0114 **   IP TPS SYSTEM           System IP TPS threshold exceeded

```

Alarm Level: Major

Recovery

1. Enter the following command to display the current options for the IPGWx.

```
rtrv-sg-opts
```

Following is an example of the output:

```

RLGHNCX A03W 00-02-07 12:02:36 EST EAGLE 31.6.0
SYNC:           TALI
SRKQ:           250
DRKQ:           750
SNMPCONT:       john doe 555-123-4567
GETCOMM:        public
SETCOMM:        private
TRAPCOMM:       public
INHFEPALM:      YES
SCTPCSUM:       adler32
IPGWABATE:      NO
IPLIMABATE:     NO
Command Completed.

```

2. Examine the output.

Corrective Maintenance

If the value is less than 100 (the limit), this percentage can be increased using the **chg-sg-opts** command. Refer to the *Commands Manual* for details on using this command.

If the value is at 100 (the limit), a new feature key is required to increase the IPGWx system IP TPS. Contact the *Customer Care Center*, see page 1-12, to purchase a new feature key.

0115 - Linkset IP TPS threshold exceeded

This message indicates that the actual linkset transaction rate exceeds the provisioned linkset IPGWx TPS.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0115 ** LSN lsgw1103 Linkset IP TPS threshold exceeded
```

Alarm Level: Major

Recovery

1. Enter the following command to display the current and peak IPGWx TPS utilization of the linkset specified in the output.

rept-stat-iptps

Following is an example of the output:

```
eagle10115 03-05-06 09:49:20 EST EAGLE 31.6.0

IP TPS USAGE REPORT

-----
              THRESH  CONFIG          TPS      PEAK      PEAKTIMESTAMP
-----
SYSTEM
CLLI1234567  100%  100000  TX:   4127    4550  03-05-05 09:49:19
                      RCV:   3962    4450  03-05-05 09:49:19
-----
LSN
LSGW1101      80%    4000  TX:   3700    4000  03-05-05 09:49:19
                      RCV:   3650    4000  03-05-05 09:49:19
LSGW1103      80%     500  TX:    427     550  03-05-05 09:49:19
                      RCV:    312     450  03-05-05 09:49:19
-----

Command Completed.
```

- Refer to the *Commands Manual* to interpret the output. If the linkset has adequate bandwidth, then the IP TPS for the linkset can be increased (using the **chg-ls** command), provided the current IPGWx system IP TPS setting allows for this. The IP TPS LS alarm threshold percent (*lsusealm*) can also be adjusted if allowed by the current setting. If the linkset does not have adequate bandwidth, then more links or different routing strategies may be required to correct the problem.

0116 - Link expected IP TPS threshold exceeded

This message indicates *that the actual link transaction rate is approaching the link's fair share* of provisioned linkset capacity.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0116 * SLK 1104,A LSA01 Link expected IP TPS threshold exceeded
          SLC=01 FECLLI=A1234567890
    
```

Alarm Level: Minor

Recovery

- Enter the following command to display the current and peak IPGWx TPS utilization of the linkset specified in the output.

```
rept-stat-iptps:lsn=xxxxxx
```

where *xxxxxx* is the linkset name as defined in the output.

Following is an example of the output:

```

eagle10115 03-05-06 09:49:20 EST EAGLE 31.6.0

IP TPS USAGE REPORT

          THRESH  CONFIG          TPS          PEAK
PEAKTIMESTAMP
-----
          LSN
          LSGW1101    100%  188000  TX:    800    800  03-05-05 09:49:19
                                RCV:    800    800  03-05-05 09:49:19
-----
          LOC  PORT
          1101  A    80%    ----  TX:    800    800  03-05-05 09:49:19
                                RCV:    800    800  03-05-05 09:49:19
    
```

Corrective Maintenance

```
1103      A      80%      ---- TX:      800      800 03-05-05 09:49:19
                               RCV:      800      800 03-05-05 09:49:19
```

```
-----  
Command Completed.  
;
```

2. Refer to the *Commands Manual* to interpret the output. If the linkset has adequate bandwidth, then the IP TPS for the linkset can be increased (using the **chg-ls** command), provided the current IPGWx system IP TPS setting allows for this. The IP TPS SLK alarm threshold percent (*slkusealm*) can also be adjusted if allowed by the current setting. If the linkset does not have adequate bandwidth, then more links are required to correct the problem.

0117 - System IP TPS normal

This message indicates the total reported IP TPS for all links in IPGWx linksets has fallen below the configured system threshold.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0117      IP TPS SYSTEM      System IP TPS normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0118 - Linkset IP TPS normal

This message indicates the total usage for the linkset TPS rate has fallen below the configured linkset TPS rate.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0118      LSN lsgw1103      Linkset IP TPS normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0119 - Link IP TPS normal

This message indicates the total usage for the linkset exceeds the linkset threshold for the linkset's IP TPS.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0119     SLK 1104,A LSA01   Link IP TPS normal
                SLC=01   FECLLI=A1234567890
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0128 - All clocks have failed

A fault has been detected on all system clocks.

Example

```
RLGHNCXA21W 00-12-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0128 *C CLOCK SYSTEM      All clocks have failed
```

Alarm Level: Critical

Recovery

1. Verify the status of the clock with the **rept-stat-clk** command. If both clocks are idle, check the source clock into the system. Follow local maintenance procedures to repair the source clock.

 2. Verify the clock cables are connected to the shelf backplane (refer to the *Installation Manual* for cable location). If any cables are loose, reconnect the cable.

 3. If the clock source is not at fault, try reseating the TDM cards.

 4. If the message appears again, replace the TDM cards.
See Appendix A, *Card Removal/Replacement Procedures*.

 5. If the fault still does not clear, contact the *Customer Care Center*, see page 1-12.
-

0130 - Card successfully loaded with data

The indicated card has been reloaded by the system with the appropriate GPL and tables.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
0014.0130 CARD 1304 SCCP Card successfully loaded with data
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0132 - Loading failed: table not found

This indicates an error in an upgrade procedure. Either an incorrect file or table was entered. This message could also indicate the file or table being loaded is corrupted and is not recognized by the system.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0132 ** CARD 1304 SCCP      Loading failed: table not found
```

Alarm Level: Major

Recovery

Contact the *Customer Care Center*, see page 1-12.

0133 - Loading failed: data read Error

An error occurred on the active MASP while data tables were loaded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0133 ** CARD 1304 SCCP      Loading failed: data read error
```

Alarm Level: Major

Recovery

1. To verify that both databases are at the same level and are not corrupted, enter:

```
rept-stat-db
```

The following is an example of output for a corrupted database.

```
bothwagm03w 99-01-08 19:52:08 EST EAGLE 35.0.0
rept-stat-lsms
Command entered at terminal #1.
;
```

Corrective Maintenance

```
bothwagm03w 99-01-08 19:52:08 EST EAGLE 35.0.0
                    GPL          PST          SST          AST
-----
LSMS SYSTEM                IS-NR          Active          -----
TDM TRM      8              IS-NR          Active          -----
TDM TRM      9              IS-NR          Active          -----
OAP          A  023-065-000  IS-NR          Active          -----
OAP          B  023-065-000  IS-NR          Active          -----
Q.3 Assoc   A1              IS-NR          Active          -----
Q.3 Assoc   B1              IS-NR          Active          -----

LSMS SYSTEM ALARM STATUS = No Alarms.
OAP A ALARM STATUS       = No Alarms.
OAP B ALARM STATUS       = No Alarms.
Q.3 Assoc A1 ALARM STATUS = No Alarms.
Q.3 Assoc B1 ALARM STATUS = No Alarms.
```

Command Completed.

;

2. To verify the integrity of the database, enter:

aud-data

3. If there is a problem with the database, follow the procedures in the *Database Administration Manual* for resolving database inconsistencies.
-
4. If the problem still exists, contact the *Customer Care Center*, see page 1-12.
-

0134 - Loading failed: bad checksum returned

The GPL checksum, which is used to verify the data, indicates an error during file transfer. The file (GPL) needs to be downloaded again.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0134 ** CARD 1304 SSCP Loading failed: bad checksum returned
```

Alarm Level: Major

Recovery

1. Reseat the indicated card. This may have caused the transmission error.
-

2. When the card has been reseated, it attempts to reload automatically.
 3. If the download fails again, contact the *Customer Care Center*, see page 1-12.
-

0135 - Loading failed: GPL load timeout

There was a timeout caused by the loading process.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0135 ** CARD 1304 SCCP Loading failed: GPL load timeout
```

Alarm Level: Major

Recovery

1. Verify the card is properly seated. If not, reseal the indicated card.
 2. If the card is properly seated, the problem corrects itself. No further action is necessary.
-

0136 - Loading failed: data load timeout

The download process timed out on the MASP. This could be caused by an improperly programmed BIP on the daughterboard of the card being loaded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0136 ** CARD 1304 SCCP Loading failed: data load timeout
```

Alarm Level: Major

Recovery

1. Use the **rtrv-bip** command (debug command) to verify the BIP on the applique of the indicated card. Refer to the *Commands Manual* for details on how to use this command.

 2. If the BIP is invalid, it must be reprogrammed. Contact the *Customer Care Center*, see page 1-12.

You will need to know the part number, revision level, and serial number of the card.

 3. The card can be reprogrammed with instructions from Tekelec Technical Services, or Tekelec Technical Services can dial into the system and reprogram the card remotely.

 4. If the BIP is valid, reseal the card. This should correct the problem. If not, contact the *Customer Care Center*, see page 1-12.
-

0137 - Loading failed: invalid GPL

This message indicates that the GPL file is corrupt or there was a failure in the IMT bus.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0137 ** CARD 1304 SCCP Loading failed: invalid GPL
```

Alarm Level: Major

Recovery

1. This problem should correct itself.

 2. If the problem still exists, contact the *Customer Care Center*, see page 1-12.
-

0138 - Loading failed: GPL format error

This message indicates a corrupted GPL file.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0138 ** CARD 1304 SCCP Loading failed: GPL format error
```

Alarm Level: Major

Recovery

Contact the *Customer Care Center*, see page 1-12.

0139 - Loading failed: disk read prep error

This message indicates the GPL version is not current, and incompatible with the system load.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0139 ** CARD 1304 SCCP Loading failed: disk read prep error
```

Alarm Level: Major

Recovery

Refer to the upgrade procedure sent with the software. If this procedure was followed correctly, and the problem still exists, contact the *Customer Care Center*, see page 1-12.

0140 - Loading failed: disk read response error

This message indicates there was an error in reading the fixed disk.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0140 ** CARD 1304 SCCP Loading failed:disk read response error
```

Alarm Level: Major

Recovery

1. If the disk was just installed in the system, try the load again.

2. If the problem occurs again, contact the *Customer Care Center*, see page 1-12.

0141 - Loading failed: disk read failed

This message indicates there was a failure while reading the fixed disk on the active TDM.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0141 ** CARD 1304 SCCP Loading failed: disk read failed
```

Alarm Level: Major

Recovery

1. Try the load again.

2. If the problem persists, replace the TDM with the corrupted media.
See Appendix A, *Card Removal/Replacement Procedures*.

3. If this message appears again, contact the *Customer Care Center*, see page 1-12.

0142 - System release alarm cleared

The SYSREL.SYS file has been installed on the active fixed disk and the alarm has been cleared.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0142    GPL SYSTEM OAM      System release alarm cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0143 - System release GPL(s) not approved

This message indicates that one or more approved GPLs do not match the version specified in the SYSREL.SYS file.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0143 * GPL SYSTEM OAM      System release GPL(s) not approved
```

Alarm Level: Minor

Recovery

-
1. Use the **rtrv-gpl** command to display the GPLs on the system. The output of the **rtrv-gpl** command can be used to identify the GPLs that do not match the versions specified in the SYSREL.SYS file.

 2. Use the **chg-gpl** command to upload the required version of the GPL.

Corrective Maintenance

3. Use the **act-gpl** command to make the uploaded GPL the approved GPL.
-

0144 - System release version unknown

This message indicates that a failure has occurred while accessing the SYSREL.SYS file. Either the SYSREL.SYS file could not be found on the active fixed disk or has become corrupted and is not accessible.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST
* 0014.0144 * GPL SYSTEM OAM      System release version unknown
```

Alarm Level: Minor

Recovery

1. Insert the system removable cartridge containing the SYSREL.SYS file into the maintenance disk and alarm card (MDAL).
2. Enter the following command to upload the SYSREL.SYS file from the system removable cartridge to the active fixed disk:

```
chg-gpl:appl=utility
```

3. If this message appears again, contact the *Customer Care Center*, see page 1-12.
-

0145 - HS Clock A for card failed, B normal

This indicates that the High Speed clock A signal for the indicated card is not present.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0053.0145 * CARD 1115 OAM HS Clock A for card failed, B normal
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the status of the clock. The output indicates how many cards are using the specified clock, and how many cards are reporting fault with the specified clock.

Following is an example of the possible output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active         PRIMARY BITS      = -----
SECONDARY BITS    = Idle           SECONDARY BITS    = -----
HS PRIMARY CLK    = Active         HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle           HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED    HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL      HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009
# Cards using CLK B = 000
# Cards using CLK I = 000

PST               SST           AST
IS-NR             ACTIVE        ALMINH

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001
# Cards using HSCLK B = 000
# Cards using HSCLK I = 000

PST               SST           AST
IS-NR             ACTIVE        ALMINH

Command Completed.
;
```



CAUTION: Resetting, reseating, or replacing a card will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the **dact-slk** command.

2. If only one card is reporting fault, reset the card.
3. If the fault has not cleared, reseal the card.
4. If the fault has not cleared, replace the card.
See Appendix A, *Card Removal/Replacement Procedures*.
5. If the fault still has not cleared, replace the TDM card in MASP A.

See Appendix A, *Card Removal/Replacement Procedures*.

6. If more than one card is reporting fault with the designated clock, check the clock cable connection at the shelf backplane (refer to the *Installation Manual* for cable location). If the clock cable is at fault, replace the clock cable.
 7. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the **act-slk** command.
-

0146 - HS Clock B for card failed, A normal

This indicates that the High Speed clock B signal for the indicated card is not present.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0053.0146 * CARD 1115 OAM HS Clock B for card failed, A normal
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the status of the clock. The output indicates how many cards are using the specified clock, and how many cards are reporting fault with the specified clock.

Following is an example of the possible output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS   = Idle          SECONDARY BITS   = -----
HS PRIMARY CLK   = Active        HS PRIMARY CLK   = -----
HS SECONDARY CLK = Idle          HS SECONDARY CLK = -----
HS CLK TYPE      = E1 UNFRAMED   HS CLK TYPE      = -----
HS CLK LINELEN   = SHORThAUL     HS CLK LINELEN   = -----

                                PST          SST          AST
SYSTEM CLOCK      = No Alarms.    IS-NR          ACTIVE      ALMINH
ALARM STATUS
```

```

# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

HS SYSTEM CLOCK                    PST          SST          AST
ALARM STATUS      = No Alarms.    IS-NR        ACTIVE      ALMINH
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

Command Completed.
;

```



CAUTION: Resetting, reseating, or replacing a card will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the `dact-slk` command.

2. If only one card is reporting fault, reset the card.

3. If the fault has not cleared, reseal the card.

4. If the fault has not cleared, replace the card.
See Appendix A, *Card Removal/Replacement Procedures*.

5. If the fault still has not cleared, replace the TDM card in MASP B.
See Appendix A, *Card Removal/Replacement Procedures*.

6. If more than one card is reporting fault with the designated clock, check the clock cable connection at the shelf backplane (refer to the *Installation Manual* for cable location). If the clock cable is at fault, replace the clock cable.

7. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the `act-slk` command.

0147 - High Speed Clocks A and B for card failed

The High Speed A and B clock sources for the indicated card are not present.

Example

```

station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0053.0147 * CARD 1115 OAM High Speed Clocks A and B for card failed

```


Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the status of the clocks. The output indicates how many cards are using one of the specified clocks, and how many cards are reporting faults.

Following is an example of the possible output:

```
rept-stat-clk
  Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

                                PST          SST          AST
SYSTEM CLOCK       IS-NR          ACTIVE        ALMINH
ALARM STATUS       = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

                                PST          SST          AST
HS SYSTEM CLOCK    IS-NR          ACTIVE        ALMINH
ALARM STATUS       = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

Command Completed.
;
```



CAUTION: Resetting, reseating, or replacing a card will cause both links on the card to fail. If the card is a LIM, place the links on the LIM out of service by entering the **dacl-slk** command.

2. If only one card is reporting fault, reset the card.
 3. If the fault has not cleared, reseal the card.
-

4. If the fault has not cleared, replace the card.
See Appendix A, *Card Removal/Replacement Procedures*.

 5. If the fault still has not cleared, replace the TDM card in MASP B.
See Appendix A, *Card Removal/Replacement Procedures*.

 6. If more than one card is reporting fault with the designated clock, check the clock cable connection at the shelf backplane (refer to the *Installation Manual* for cable location). If the clock cable is at fault, replace the clock cable.

 7. If the fault has cleared and any of these cards are LIMs, place the links assigned to these cards back into service using the **act-slk** command.
-

0148 - High Speed Clock A for card normal

This indicates that the High Speed clock A signal for the indicated card has returned to a normal, functional state.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0  
0053.0148 CARD 1115 OAM High Speed Clock A for card normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0149 - High Speed Clock B for card normal

This indicates that the High Speed clock B signal for the indicated card has returned to a normal, functional state.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 35.0.0
```

Corrective Maintenance

0053.0149 CARD 1115 OAM High Speed Clock B for card normal

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0150 - STPLAN is available

This message indicates that the application communication modules (ACMs) are in service with no failure conditions.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0150      SLAN SYSTEM      STPLAN is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0151 - STPLAN capacity normal,card(s) abnormal

This message indicates that one or more application communication modules (ACMs) are out of service, but the STPLAN capacity of the system is within acceptable limits.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0151      SLAN SYSTEM      STPLAN capacity normal,card(s) abnormal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the following command to determine which ACMs are out of service:

```
rept-stat-slan
```

Following is an example of the output:

```
tekelecstp 00-04-23 13:36:07 EST EAGLE 35.0.0
SLAN Subsystem Report IS-ANR Active -----
SLAN Cards Configured= 2 Cards IS-NR= 2
CARD VERSION PST SST AST HOST Cap. EAGLE
Cap. -----
----
1206 021-010-000 IS-NR Active ---- 42%
16%
1104 021-010-000 IS-NR Active ALMINH 36%
12%
-----
-----
AVERAGE USAGE per HOST CAPACITY = 39%
AVERAGE USAGE per EAGLE CAPACITY = 14%
CARDS DENIED SLAN SERVICE:
 1101, 1204

Command Completed
```

2. Use the **init-card** command to reinitialize any cards OOS-MT.

3. Use the **rept-stat-slan** command again to determine if the card(s) have returned to IS-NR. If not, reset the card(s).

4. If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0152 - LIM(s) have been denied STPLAN service

This message indicates that a link interface module (LIM) has been denied STPLAN service and cannot send messages to an application communication module (ACM) due to underprovisioning. More ACMs are required. There should be approximately one ACM for 30-32 LIMs. However, this ratio depends upon the traffic load.

Example

```
RLGHNCXA21W 00-12-07 11:02:30 EST EAGLE 35.0.0
** 0100.0152 ** SLAN SYSTEM LIM(s) have been denied STPLAN service
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-slan** command to determine which LIMs have been denied STPLAN service.
NOTE: Make sure the problem persists. Adding new LIM cards can cause this condition temporarily.
 2. Add ACMs one at a time. Monitor the performance of the STPLAN subsystem with the **rept-stat-slan** command to determine if additional cards are needed.
-

0153 - STPLAN not available

This message indicates that no application communication modules (ACMs) are in service.

Example

```
RLGHNCXA21W 00-12-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0153 *C SLAN SYSTEM          STPLAN not available
```

Alarm Level: Critical

Recovery

1. To determine the status of the ACMs, enter:

rept-stat-slan

Following is an example of the output:

```
tekelecstp 00-04-23 13:36:07 EST EAGLE 35.0.0
SLAN Subsystem Report  IS-ANR          Active      -----
SLAN Cards Configured= 2          Cards IS-NR= 2
CARD  VERSION      PST          SST          AST      HOST Cap.  EAGLE
Cap.
-----
-----
16%          1206   021-010-000  IS-NR          Active      -----          42%
```

```

12%      1104   021-010-000  IS-NR           Active   ALMINH   36%
-----
-----
AVERAGE USAGE per HOST CAPACITY = 39%
AVERAGE USAGE per EAGLE CAPACITY = 14%
CARDS DENIED SLAN SERVICE:
      1101, 1204

Command Completed

```

2. Use the **init-card** command to reinitialize any cards OOS-MT.

3. Enter the following command to determine if the card(s) have returned to IS-NR. If not, reseal the card(s).

```
rept-stat-slan
```

4. If any card(s) remain OOS-MT, replace the card(s).
See Appendix A, *Card Removal/Replacement Procedures*.
-

0154 - STPLAN is removed

This message indicates that the last application communication module (ACM) has been deleted from the database by the user. The STPLAN service is no longer available.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST  EAGLE 35.0.0
0014.0154    SLAN SYSTEM      STPLAN is removed

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message is the result of database administration, and does not indicate an alarm condition.

NOTE: Confirm that the STPLAN removal was intentional.

0155 - STPLAN connection unavailable

This message indicates that the TCP/IP connection to the remote host is lost. The physical connection may be faulty or the remote host is not accepting a TCP/IP connection.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0155 * DLK 1104,A STPLAN STPLAN connection unavailable
```

Alarm Level: Minor

Recovery

1. Determine if the reported card is out of service using the **rept-stat-card** command. If card is not OOS-MT, proceed to step 3.

2. If card is OOS-MT, do the following, using the **rept-stat-card** command to check for card IS-NR state after each action:
 - a. Reinitialize card using the **init-card** command.
 - b. Reseat the card.
 - c. Replace the card.

See Appendix A, Card Removal/Replacement Procedures.

3. Use the **rtrv-ip-node** command to identify the address and node of the remote host.

4. Use the **tst-dlk** command to test the TCP/IP connection.

5. If the **tst-dlk** test passes, check that the proper port designation is set at the remote host.

6. If **tst-dlk** fails, perform the following checks:
 - a. Check the remote host hardware and software.
 - b. Use your company procedures to check the network.

- c. Check cable connections at the system and at the remote host.
-

7. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.
-

0156 - STPLAN connection available

This message indicates that the TCP/IP connection to the host is established. All failures have been cleared.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0156     DLK 1104,A STPLAN     STPLAN connection available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates that a previous failure has been cleared. No further action is necessary.

0157 - X25 logical channels available

This message indicates that X.25 logical channels are available. An "X25 no logical channels available" condition (message number 0158) has been cleared.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0157     SLK 1104,A LSA01     X25 logical channels available
                SLC=01     FECLLI=A1234567890
```

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

This message indicates that an "X25 no logical channels available" condition has been cleared. No further action is necessary.

0158 - X25 no logical channels available

This message indicates that no X.25 logical channels are available to make an outgoing call. This condition occurs when the combination of incoming (end user-initiated) and outgoing (system-initiated) calls exceed the total number of SVCs configured for the link.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0158 * SLK 1104,A LSA01 X25 no logical channels available
          SLC=01 FECLLI=A1234567890
```

Alarm Level: Minor

Recovery

1. Correct any under-provisioning of a link or correct condition of excessive calls from user end of the network. Link provisioning changes must take place at both ends of the X.25 link.
 2. At the EAGLE 5 ISS end of the X.25 link, use the **chg-x25-slk** command to change the number of SVCs configured.
-

0159 - High Speed Clocks A and B for card normal

The High Speed A and B clock sources for the indicated card are now functioning normally.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 35.0.0
0053.0147 CARD 1115 OAM High Speed Clocks A and B for card normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0160 - 1116-S clock failed

This message indicates the secondary BITS clock failed on the TDM card in slot 1116.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0160 * CLOCK SYSTEM 1116-S clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock status. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Active )    CARD LOC= 1116 (Isolated )
PRIMARY BITS = Active      PRIMARY BITS = -----
SECONDARY BITS = Idle      SECONDARY BITS = -----
                                PST          SST          AST
SYSTEM CLOCK                IS-NR          ACTIVE        ALMINH
# Cards using CLK A = 9     # Cards with bad CLK A = 0
# Cards using CLK B = 0     # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. The primary BITS clock should be active. Reseat the TDM card in slot 1116.
-

3. If the problem persists, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0161 - 1116-P clock failed

This message indicates that the primary clock on the TDM card in slot 1116 failed.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0161 * CLOCK SYSTEM 1116-P clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Standby )    CARD LOC= 1116 (Active )
PRIMARY BITS = Idle         PRIMARY BITS = Fault
SECONDARY BITS = Active     SECONDARY BITS = Active
                                PST          SST          AST
SYSTEM CLOCK                 IS-NR      Idle          -----
# Cards using CLK A = 0      # Cards with bad CLK A = 0
# Cards using CLK B = 8      # Cards with bad CLK B = 0
# Cards using CLK I = 0
Command Completed
```

2. The system automatically reverts from the primary to secondary BITS if the primary clock fails. Reseat the TDM card in slot 1116.
-

3. If the problem persists, replace the TDM card in slot 1116.

See Appendix A, *Card Removal/Replacement Procedures*.

0162 - 1116-P, 1116-S clocks failed

This message indicates that both BITS clocks have failed on the TDM card located in slot 1116.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0162 ** CLOCK SYSTEM 1116-P, 1116-S clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Standby )   CARD LOC= 1116 (Active )
PRIMARY BITS = -----   PRIMARY BITS = Fault
SECONDARY BITS = -----   SECONDARY BITS = Fault
                                PST           SST           AST
SYSTEM CLOCK                IS-NR           Idle           -----
# Cards using CLK A = 0     # Cards with bad CLK A = 8
# Cards using CLK B = 0     # Cards with bad CLK B = 8
# Cards using CLK I = 8
Command Completed
```

2. Reseat the TDM card in slot 1116.
 3. If the problem persists, replace the TDM card in slot 1116.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0163 - 1114-S clock failed

This message indicates the secondary BITS clock for the TDM card in slot 1114 has failed.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0163 * CLOCK SYSTEM 1114-S clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Active )   CARD LOC= 1116 (Isolated )
PRIMARY BITS = Active     PRIMARY BITS = Fault
SECONDARY BITS = Fault    SECONDARY BITS = Fault
                                PST           SST           AST
SYSTEM CLOCK                IS-NR           ACTIVE        ALMINH
# Cards using CLK A = 9     # Cards with bad CLK A = 0
```

Corrective Maintenance

```
# Cards using CLK B = 0      # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. The primary BITS clock should be active. Reseat the TDM card in slot 1114.
 3. If the problem persists, replace the TDM card in slot 1114.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0164 - 1114-S, 1116-S clocks failed

This message indicates the secondary BITS clock source has failed on both the active and standby TDM cards.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0164 ** CLOCK SYSTEM 1114-S, 1116-S clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock status.
Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated )   CARD LOC= 1116 (Active )
PRIMARY BITS = Fault        PRIMARY BITS = Active
SECONDARY BITS = Fault      SECONDARY BITS = Fault
                             PST          SST          AST
SYSTEM CLOCK                IS-NR          ACTIVE        ALMINH
# Cards using CLK A = 9      # Cards with bad CLK A = 0
# Cards using CLK B = 0      # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the secondary BITS clock.
 3. If this message appears again, contact the *Customer Care Center*, see page 1-12.
-

0165 - 1114-S, 1116-P clocks failed

This message indicates the secondary BITS clock on the TDM card in slot 1114, and the primary BITS clock on the TDM card in slot 1116 have failed.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0165 * CLOCK SYSTEM 1114-S, 1116-P clocks failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated )   CARD LOC= 1116 (Active )
PRIMARY BITS = Fault        PRIMARY BITS = Fault
SECONDARY BITS = Fault      SECONDARY BITS = Active
PST                          SST          AST
SYSTEM CLOCK                 IS-NR          ACTIVE      ALMINH
# Cards using CLK A = 9      # Cards with bad CLK A = 0
# Cards using CLK B = 0      # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the BITS clock.
3. If one of the reference clocks is still not functioning, replace the TDM card(s).
See Appendix A, *Card Removal/Replacement Procedures*.
4. If this message appears again, contact the *Customer Care Center*, see page 1-12.

0166 - 1114-S, 1116-P, 1116-S clocks failed

This message indicates the following clocks failed:

- The secondary clock on the TDM card in slot 1114
- The primary clock on the TDM card in slot 1116
- The secondary clock on the TDM card in slot 1116

Corrective Maintenance

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0166 ** CLOCK SYSTEM 1114-S, 1116-P, 1116-S clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Active ) CARD LOC= 1116 (Isolated )
PRIMARY BITS = Active PRIMARY BITS = Fault
SECONDARY BITS = Fault SECONDARY BITS = Fault
PST SST AST
SYSTEM CLOCK IS-NR ACTIVE ALMINH
# Cards using CLK A = 9 # Cards with bad CLK A = 0
# Cards using CLK B = 0 # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the BITS clock.
 3. If one of the reference clocks is still not functioning, replace the TDM card(s).
See Appendix A, *Card Removal/Replacement Procedures*.
-

0167 - 1114-P clock failed

This message indicates the primary BITS clock on the TDM card in slot 1114 has failed.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0167 * CLOCK SYSTEM 1114-P clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated )   CARD LOC= 1116 (Active )
PRIMARY BITS   = Fault       PRIMARY BITS   = Active
SECONDARY BITS = Fault       SECONDARY BITS = Fault
                                PST           SST           AST
SYSTEM CLOCK                                IS-NR          ACTIVE      ALMINH
# Cards using CLK A = 9         # Cards with bad CLK A = 0
# Cards using CLK B = 0         # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the BITS clock.
 3. If the reference clock is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0168 - 1114-P, 1116-S clocks failed

This message indicates the primary BITS clock on the TDM card in slot 1114, and the secondary BITS clock on the TDM card in slot 1116 have failed.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0168 * CLOCK SYSTEM      1114-P, 1116-S clocks failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated)   CARD LOC= 1116 (Active )
PRIMARY BITS   = Fault       PRIMARY BITS   = Active
SECONDARY BITS = Fault       SECONDARY BITS = Fault
                                PST           SST           AST
SYSTEM CLOCK                                IS-NR          ACTIVE      ALMINH
# Cards using CLK A = 9         # Cards with bad CLK A = 0
```


Corrective Maintenance

```
# Cards using CLK B = 0      # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the BITS clock.

 3. If one of the reference clocks is still not functioning, reseal the associated TDM card. Make sure the system clock reference is active on the other TDM card.

 4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0169 - 1114-P, 1116-P clocks failed

This message indicates the primary BITS clock on the TDM cards in slots 1114 and slot 1116 have failed.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0169 ** CLOCK SYSTEM 1114-P, 1116-P clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated )   CARD LOC= 1116 (Active )
PRIMARY BITS = Fault        PRIMARY BITS = Fault
SECONDARY BITS = Fault      SECONDARY BITS = Active
                             PST           SST           AST
SYSTEM CLOCK                IS-NR          ACTIVE        ALMINH
# Cards using CLK A = 9      # Cards with bad CLK A = 0
# Cards using CLK B = 0      # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the BITS clock.
-

3. If one of the reference clocks is still not functioning, reseal the associated TDM card. Make sure the system clock reference is active on the other TDM card.
-
4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0170 - 1114-P, 1116-P, 1116-S clocks failed

This message indicates the following clocks failed:

- The primary clock on the TDM card in slot 1114
- The primary clock on the TDM card in slot 1116
- The secondary clock on the TDM card in slot 1116

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0170 ** CLOCK SYSTEM 1114-P, 1116-P, 1116-S clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Standby )    CARD LOC= 1116 (Isolated )
PRIMARY BITS = -----    PRIMARY BITS = Fault
SECONDARY BITS = -----    SECONDARY BITS = Active
PST          SST          AST
SYSTEM CLOCK  IS-NR        ACTIVE    ALMINH
# Cards using CLK A = 9    # Cards with bad CLK A = 0
# Cards using CLK B = 0    # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the BITS clock.
-
3. If one of the reference clocks is still not functioning, reseal the associated TDM card. Make sure the system clock reference is active on the other TDM card.
-

Corrective Maintenance

4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0171 - 1114-P, 1114-S clocks failed

This message indicates the primary and secondary BITS clocks on the TDM card in slot 1114 have failed.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0171 ** CLOCK SYSTEM 1114-P, 1114-S clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated )    CARD LOC= 1116 (Active )
PRIMARY BITS = Fault          PRIMARY BITS = Fault
SECONDARY BITS = Fault        SECONDARY BITS = Active
PST                SST        AST
SYSTEM CLOCK        IS-NR        ACTIVE    ALMINH
# Cards using CLK A = 9      # Cards with bad CLK A = 0
# Cards using CLK B = 0      # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the BITS clock.
 3. If one of the reference clocks is still not functioning, reseal the associated TDM card. Make sure the system clock reference is active on the other TDM card.
 4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0172 - 1114-P, 1114-S, 1116-S clocks failed

This message indicates the following clocks failed:

- The primary clock on the TDM card in slot 1114
- The secondary clock on the TDM card in slot 1114
- The secondary clock on the TDM card in slot 1116

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0172 ** CLOCK SYSTEM 1114-P, 1114-S, 1116-S clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated )    CARD LOC= 1116 (Isolated )
PRIMARY BITS = Fault          PRIMARY BITS = Fault
SECONDARY BITS = Fault        SECONDARY BITS = Active
                                PST          SST          AST
SYSTEM CLOCK                   IS-NR          ACTIVE        ALMINH
# Cards using CLK A = 9        # Cards with bad CLK A = 0
# Cards using CLK B = 0        # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the secondary BITS clock.
3. If one of the reference clocks is still not functioning, reseal that TDM card.
4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.

0173 - 1114-P, 1114-S, 1116-P clocks failed

This message indicates the following clocks failed:

- The primary clock on the TDM card in slot 1114

Corrective Maintenance

- The secondary clock on the TDM card in slot 1114
- The primary clock on the TDM card in slot 1116

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0173 ** CLOCK SYSTEM 1114-P, 1114-S, 1116-P clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
tekelecstp 00-04-23 13:34:15 EST EAGLE 35.0.0
CARD LOC= 1114 (Isolated )    CARD LOC= 1116 (Active )
PRIMARY BITS = Fault          PRIMARY BITS = Fault
SECONDARY BITS = Fault        SECONDARY BITS = Active
                                PST           SST           AST
SYSTEM CLOCK                   IS-NR          ACTIVE         ALMINH
# Cards using CLK A = 9        # Cards with bad CLK A = 0
# Cards using CLK B = 0        # Cards with bad CLK B = 9
# Cards using CLK I = 0
Command Completed
```

2. Follow local procedures to troubleshoot and repair the primary BITS clock.

3. If one of the reference clocks is still not functioning, reseal the associated TDM card.

4. If one of the reference clocks is still not functioning, replace the associated TDM card.
-

0174 - %full threshold reached -upload required

This alarm is part of the Security Logging feature. When the security log reaches a threshold (administered by the **chg-attr-secu-log** command), this alarm is raised. If the system detects that the percent full condition of new entries has reached the threshold, this alarm is raised to alert the system administrator that the security log must be uploaded to avoid an overflow condition. If the log is not uploaded before the log is completely full, entries will be lost. When the security log is uploaded, the alarm is lowered.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0174 *SECULOG 1114 %full threshold reached - upload required

```

Alarm Level: Minor**Recovery**

NOTE: This alarm appears only on the security administrator terminal.

1. To clear this alarm, you must copy the security log to the file transfer area (FTA) in the system. To do this, enter the **copy-seculog** command.
-
2. From the file transfer area, you can use the **act-file-trns** command to transfer the file to a remote PC. Follow local procedures for transferring and storing security logs.
-

0175 - LOGBUFROVFL-SECULOG - upload required

This alarm is part of the Security Logging feature. When the security log reaches a threshold (administered by the **chg-attr-seculog** command) UAM 174 is raised. When the log fills completely, new entries are lost and this alarm is raised. When the security log is uploaded, this alarm is lowered.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0175 *SECULOG 1114 LOGBUFROVFL-SECULOG - upload required

```

Alarm Level: Minor**Recovery**

NOTE: This alarm appears only on the security administrator terminal.

1. To clear this alarm, you must copy the security log to the file transfer area (FTA) in the system. To do this, enter the **copy-seculog** command.
-

Corrective Maintenance

2. From the file transfer area, you can use the **act-file-trns** command to transfer the file to a remote PC. Follow local procedures for transferring and storing security logs.
-

0176 - Stdby security log - upload required

This alarm is part of the Security Logging feature. All of the security log entries should be written to the active MASP and none to the standby MASP. However, should a problem occur and the standby MASP switches to active, the security logs are split between the two MASPs. If there are any new log entries on the standby MASP, the standby log should be uploaded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0176 *SECULOG 1116 Stdby security log - upload required
```

Alarm Level: Minor

Recovery

NOTE: This alarm appears only on the security administrator terminal.

Enter the following command to clear this alarm and copy the security log to the file transfer area (FTA) in the system:

```
copy-seculog:slog=stb
```

0177 - Security log exception cleared

This alarm is part of the Security Logging feature and indicates that a previous alarm has been cleared by doing one of the following:

- uploading the security log to the file transfer area
- turning off the security logging feature
- raising the threshold for the number of log entries that will generate UAM 174

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
```

0014.0177 SECULOG 1114 Security log exception cleared

Alarm Level: No alarm condition. The message is informational only.

Recovery

NOTE: This alarm appears only on the security administrator terminal.

This message indicates a previous fault has been corrected. No further action is necessary.

0178 - Security log failed

This alarm is part of the Security Logging feature and indicates that a command could not be recorded in the security log.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0178      SECULOG 1114      Security log failed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

NOTE: This alarm appears only on the security administrator terminal.

This message indicates a logging failure has occurred. If the problem persists, check for other alarms, such as a disk failure, and troubleshoot that alarm.

0179 - NDC Q.3 association is unavailable

The NDC (network data collection) association is established and maintained by the NDC manager. Under some conditions, the NDC agent will drop the NDC association. Typically the conditions that cause this alarm are accompanied by their own additional alarms (such as UAM 0084, "IP connection unavailable").

Corrective Maintenance

Example

```
station1234 99-03-30 16:28:08 EST EAGLE 35.0.0  
** 0014.0179 EMAP NDC Q.3 association is unavailable
```

Alarm Level: Major

Recovery

1. If association loss is accompanied by UAM 0084, "IP connection unavailable," consult corrective action for that UAM (see *0084 - IP Connection Unavailable* on page 3-139 for details).
 2. If no other alarms are generated with this alarm, check the EMAP network event log for unusual network activity.
 3. Check the NDC manager for normal operation or association status.
 4. If the above steps do not clear the fault, contact the *Customer Care Center*, see page 1-12.
-

0180 - NDC Q.3 association is available

This indicates that a previous NDC association loss is reestablished and functioning properly.

Example

```
station1234 99-03-30 16:28:08 EST EAGLE 35.0.0  
3535.0180 EMAP NDC Q.3 association is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0181 - NDC Subsystem is not available

End-to-end connectivity between the system and the NDC Subsystem is down. The following conditions represent end-to-end loss of connectivity:

- Failure of both DCMs
- Failure of both DCM-to-EMAP links
- Failure of both EMAPs
- Failure of both IP links

Example

```
station1234 99-03-30 16:28:08 EST EAGLE 35.0.0
*C 3539.0181 *C NDC SYSTEM NDC Subsystem is not available
```

Alarm Level: Critical

Recovery

1. Check the physical connections between the EMAP and the NDC. Make sure the connectors are firmly seated.

2. Check the physical connections between the EMAP and the DCM cards on the system. Make sure the connectors are firmly seated.

3. Enter the following command to verify the status of the NDC:

rept-stat-ndc

A sample output follows:

```

;
RLGHNCXA3W 99-06-24 14:33:57 EST EAGLE 35.0.0.0
NDC SUBSYSTEM REPORT OOS-MT Fault -----
NDC Cards Configured= 2 Cards IS-NR= 2
CARD VERSION TYPE APPL PST SST AST
-----
1215 219-009-000 DCM EMDC IS-NR Active -----
DCM A IP CONNECTION IS-NR Avail -----
EMAP A IP CONNECTION -----
EMAP A NDC Agent -----

EMAP A GPL version = -----

1217 219-009-000 DCM EMDC IS-NR Idle -----
DCM B IP CONNECTION IS-NR Avail -----
EMAP B IP CONNECTION -----
```

Corrective Maintenance

```
EMAP B NDC Agent          -----
EMAP B GPL version = -----

EMAP NDC Q3 Association   -----
DCM-DCM IP CONNECTION    IS-NR      Avail  -----
EMAP-EMAP Serial Connection -----

ALARM STATUS
3538.0179 * EMAP          NDC Q.3 association is Unavailable
3537.0084 ** EMAP A      IP Connection Unavailable
3536.0084 ** EMAP B      IP Connection Unavailable
3539.0181 *C NDC SYSTEM  NDC Subsystem is not available
Command Completed.
```

;

Refer to the *Commands Manual* to interpret the output.

4. Using the output from Step 3, resolve the UAMs listed under ALARM STATUS using their respective UAM procedures.
5. If the problem is still not corrected, reseal the DCM card. If the EMAP still does not respond, replace the DCM card.

See Appendix A, *Card Removal/Replacement Procedures*.

6. Enter the following command to verify the status of the NDC:

```
rept-stat-ndc
```

Refer to Step 3 for a sample output.

7. If the NDC is still not available, contact the *Customer Care Center*, see page 1-12.
-

0182 - NDC Subsystem is available

This indicates that the previously severed connection between the system and the NDC OS is now functioning properly.

Example

```
station1234 99-03-30 16:28:08 EST EAGLE 35.0.0
3539.0182    NDC Subsystem    NDC Subsystem is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0183 - 1116-SHS clock failed

This message indicates that the secondary E1/T1 High Speed clock has failed for the TDM card located in slot 1116.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0052.0183 * HS CLOCK SYSTEM 1116-SHS clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002

PST          SST          AST
IS-NR        ACTIVE      ALMINH
```

Corrective Maintenance

```
# Cards using HSCLK I = 000  
Command Completed.  
;
```

2. Reseat the TDM card in slot 1116.
3. If the problem persists, replace the TDM card in slot 1116.

See Appendix A, *Card Removal/Replacement Procedures*.

0184 - 1116-PHS clock failed

This message indicates that the primary E1/T1 High Speed clock has failed for the TDM card located in slot 1116.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0  
* 0052.0184 * HS CLOCK SYSTEM 1116-PHS clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk  
Command entered at terminal #3.  
;  
  
tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0  
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )  
PRIMARY BITS      = Active        PRIMARY BITS      = -----  
SECONDARY BITS   = Idle          SECONDARY BITS   = -----  
HS PRIMARY CLK   = Active        HS PRIMARY CLK   = -----  
HS SECONDARY CLK = Idle          HS SECONDARY CLK = -----  
HS CLK TYPE      = E1 UNFRAMED    HS CLK TYPE      = -----  
HS CLK LINELEN   = SHORThAUL      HS CLK LINELEN   = -----  
  
SYSTEM CLOCK  
ALARM STATUS      = No Alarms.  
# Cards using CLK A = 009          # Cards with bad CLK A = 000  
# Cards using CLK B = 000          # Cards with bad CLK B = 009  
# Cards using CLK I = 000  
  
PST              SST              AST  
IS-NR            ACTIVE            ALMINH
```

```

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001
# Cards using HSCLK B = 000
# Cards using HSCLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

# Cards with bad HSCLK A = 000
# Cards with bad HSCLK B = 002

Command Completed.
;

```

-
2. Reseat the TDM card in slot 1116.
-
3. If the problem persists, replace the TDM card in slot 1116.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0185 - 1116-PHS, 1116-SHS clocks failed

This message indicates that both E1/T1 High Speed clocks have failed for the TDM card located in slot 1116.

Example

```

station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0185 ** HS CLOCK SYSTEM 1116-PHS, 1116-SHS clocks failed

```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```

rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

PST              SST              AST

```

Corrective Maintenance

```
SYSTEM CLOCK                IS-NR          ACTIVE      ALMINH
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009    # Cards with bad CLK A = 000
# Cards using CLK B = 000    # Cards with bad CLK B = 009
# Cards using CLK I = 000
```

```
HS SYSTEM CLOCK            PST           SST         AST
IS-NR                      ACTIVE        ALMINH
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001  # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000  # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000
```

Command Completed.

;

-
2. Reseat the TDM card in slot 1116.
-
3. If the problem persists, replace the TDM card in slot 1116.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0186 - 1114-SHS clock failed

This message indicates that the secondary E1/T1 High Speed clock has failed for the TDM card located in slot 1114.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0052.0186 * HS CLOCK SYSTEM 1114-SHS clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
```

;

```
tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active   )      CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active      PRIMARY BITS      = -----
SECONDARY BITS    = Idle        SECONDARY BITS    = -----
HS PRIMARY CLK    = Active      HS PRIMARY CLK    = -----
```

```

HS SECONDARY CLK = Idle           HS SECONDARY CLK = -----
HS CLK TYPE      = E1 UNFRAMED    HS CLK TYPE      = -----
HS CLK LINELEN   = SHORThAUL      HS CLK LINELEN   = -----

SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using CLK A = 009
# Cards using CLK B = 000
# Cards using CLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

HS SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using HSCLK A = 001
# Cards using HSCLK B = 000
# Cards using HSCLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

# Cards with bad CLK A = 000
# Cards with bad CLK B = 009

# Cards with bad HSCLK A = 000
# Cards with bad HSCLK B = 002

Command Completed.
;

```

-
2. Reseat the TDM card in slot 1114.
-
3. If the problem persists, replace the TDM card in slot 1114.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0187 - 1114-SHS, 1116-SHS clocks failed

This message indicates the secondary E1/T1 High Speed clock source has failed for both the active and standby TDM cards.

Example

```

station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0187 ** HS CLOCK SYSTEM 1114-SHS, 1116-SHS clocks failed

```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock status. Following is an example of the output:

```

rept-stat-clk
Command entered at terminal #3.
;

```


Corrective Maintenance

```
tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

Command Completed.
```

-
2. Follow local procedures to troubleshoot and repair the secondary E1/T1 High Speed clock.
-
3. If this message appears again, contact the *Customer Care Center*, see page 1-12.
-

0188 - 1114-SHS, 1116-PHS clocks failed

This message indicates the following High Speed clocks failed:

- The secondary High Speed clock for the TDM card in slot 1114
- The primary High Speed clock for the TDM card in slot 1116

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0052.0188 * HS CLOCK SYSTEM 1114-SHS, 1116-PHS clocks failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock status. Following is an example of the output:

```

rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS   = Idle          SECONDARY BITS   = -----
HS PRIMARY CLK   = Active        HS PRIMARY CLK   = -----
HS SECONDARY CLK = Idle          HS SECONDARY CLK = -----
HS CLK TYPE      = E1 UNFRAMED   HS CLK TYPE      = -----
HS CLK LINELEN   = SHORThAUL     HS CLK LINELEN   = -----

SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using CLK A = 009
# Cards using CLK B = 000
# Cards using CLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

HS SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using HSCLK A = 001
# Cards using HSCLK B = 000
# Cards using HSCLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

Command Completed.
;

```

2. Follow local procedures to troubleshoot and repair the E1/T1 High Speed clocks.
-
3. If this message appears again, contact the *Customer Care Center*, see page 1-12.
-

0189 - 1114-SHS, 1116-PHS,1116-SHS clocks failed

This message indicates the following High Speed clocks failed:

- The secondary High Speed clock for the TDM card in slot 1114
- The primary High Speed clock for the TDM card in slot 1116
- The secondary High Speed clock for the TDM card in slot 1116

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0189 ** HS CLOCK SYSTEM 1114-SHS, 1116-PHS,1116-SHS clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

PST                SST                AST
IS-NR              ACTIVE             ALMINH

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

PST                SST                AST
IS-NR              ACTIVE             ALMINH

Command Completed.
```

2. Follow local procedures to troubleshoot and repair the E1/T1 High Speed clocks.
 3. If one of the reference clocks is still not functioning, replace the TDM card(s).
See Appendix A, *Card Removal/Replacement Procedures*.
-

0190 - 1114-PHS clock failed

This message indicates the primary High Speed clock for the TDM card in slot 1114 has failed.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0052.0190 ** HS CLOCK SYSTEM 1114-PHS clock failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS   = Idle          SECONDARY BITS   = -----
HS PRIMARY CLK   = Active        HS PRIMARY CLK   = -----
HS SECONDARY CLK = Idle          HS SECONDARY CLK = -----
HS CLK TYPE      = E1 UNFRAMED   HS CLK TYPE      = -----
HS CLK LINELEN   = SHORThAUL     HS CLK LINELEN   = -----

SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using CLK A = 009
# Cards using CLK B = 000
# Cards using CLK I = 000

HS SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using HSCLK A = 001
# Cards using HSCLK B = 000
# Cards using HSCLK I = 000

Command Completed.
;

PST          SST          AST
IS-NR        ACTIVE      ALMINH

PST          SST          AST
IS-NR        ACTIVE      ALMINH
```

2. Follow local procedures to troubleshoot and repair the E1/T1 High Speed clock.

3. If the clock is still not functioning properly, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0191 - 1114-PHS, 1116-SHS clocks failed

This message indicates the following High Speed clocks failed:

- The primary High Speed clock for the TDM card in slot 1114
- The secondary High Speed clock for the TDM card in slot 1116

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
* 0052.0191 * HS CLOCK SYSTEM 1114-PHS, 1116-SHS clocks failed
```

Alarm Level: Minor

Recovery

1. Use the **rept-stat-clk** command to determine the current clock status.
Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORTHAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

PST               SST           AST
IS-NR             ACTIVE        ALMINH

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
```

```
# Cards using HSCLK I = 000
```

```
Command Completed.
```

```
;
```

-
2. Follow local procedures to troubleshoot and repair the E1/T1 High Speed clocks.
-
3. If this message appears again, contact the *Customer Care Center*, see page 1-12.
-

0192 - 1114-PHS, 1116-PHS clocks failed

This message indicates the primary E1/T1 High Speed clocks for the TDM cards in slots 1114 and 1116 have failed.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0192 ** HS CLOCK SYSTEM 1114-PHS, 1116-PHS clocks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;
```

```
tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

PST      SST      AST
IS-NR    ACTIVE   ALMINH
```

Corrective Maintenance

```
HS SYSTEM CLOCK          PST          SST          AST
ALARM STATUS             IS-NR       ACTIVE       ALMINH
ALARM STATUS             = No Alarms.
# Cards using HSCLK A = 001      # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000      # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

Command Completed.
;
```

2. Follow local procedures to troubleshoot and repair the E1/T1 High Speed clocks.
 3. If one of the reference clocks is still not functioning, reseal the associated TDM card. Make sure the system clock reference is active on the other TDM card.
 4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0193 - 1114-PHS, 1116-PHS,1116-SHS clks failed

This message indicates the following clocks failed:

- The primary High Speed clock for the TDM card in slot 1114
- The primary High Speed clock for the TDM card in slot 1116
- The secondary High Speed clock for the TDM card in slot 1116

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0193 ** HS CLOCK SYSTEM 1114-PHS, 1116-PHS,1116-SHS clks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;
```

```

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS   = Idle          SECONDARY BITS   = -----
HS PRIMARY CLK   = Active        HS PRIMARY CLK   = -----
HS SECONDARY CLK = Idle          HS SECONDARY CLK = -----
HS CLK TYPE     = E1 UNFRAMED    HS CLK TYPE     = -----
HS CLK LINELEN  = SHORThAUL      HS CLK LINELEN  = -----

                                PST          SST          AST
SYSTEM CLOCK      IS-NR          ACTIVE        ALMINH
ALARM STATUS     = No Alarms.
# Cards using CLK A = 009        # Cards with bad CLK A = 000
# Cards using CLK B = 000        # Cards with bad CLK B = 009
# Cards using CLK I = 000

                                PST          SST          AST
HS SYSTEM CLOCK  IS-NR          ACTIVE        ALMINH
ALARM STATUS     = No Alarms.
# Cards using HSCLK A = 001      # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000      # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

Command Completed.

```

-
2. Follow local procedures to troubleshoot and repair the E1/T1 High Speed clocks.
-
3. If one of the reference clocks is still not functioning, reseal the associated TDM card. Make sure the system clock reference is active on the other TDM card.
-
4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0194 - 1114-PHS, 1114-SHS clocks failed

This message indicates the primary and secondary E1/T1 High Speed clocks for the TDM card in slot 1114 have failed.

Example

```

station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0194 ** HS CLOCK SYSTEM 1114-PHS, 1114-SHS clocks failed

```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```

rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

PST               SST           AST
IS-NR             ACTIVE        ALMINH

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

PST               SST           AST
IS-NR             ACTIVE        ALMINH

Command Completed.
;

```

2. Follow local procedures to troubleshoot and repair the E1/T1 High Speed clocks.
 3. If one of the reference clocks is still not functioning, reseal the associated TDM card. Make sure the system clock reference is active on the other TDM card.
 4. If one of the reference clocks is still not functioning, replace the TDM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0195 - 1114-PHS, 1114-SHS,1116-SHS clks failed

This message indicates the following clocks failed:

- The primary High Speed clock for the TDM card in slot 1114
- The secondary High Speed clock for the TDM card in slot 1114

- The secondary High Speed clock for the TDM card in slot 1116

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0195 ** HS CLOCK SYSTEM 1114-PHS, 1114-SHS,1116-SHS clks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS   = Idle          SECONDARY BITS   = -----
HS PRIMARY CLK   = Active        HS PRIMARY CLK   = -----
HS SECONDARY CLK = Idle          HS SECONDARY CLK = -----
HS CLK TYPE      = E1 UNFRAMED   HS CLK TYPE      = -----
HS CLK LINELEN   = SHORThAUL     HS CLK LINELEN   = -----

SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using CLK A = 009        # Cards with bad CLK A = 000
# Cards using CLK B = 000        # Cards with bad CLK B = 009
# Cards using CLK I = 000

PST              SST              AST
IS-NR            ACTIVE            ALMINH

HS SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using HSCLK A = 001      # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000      # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

PST              SST              AST
IS-NR            ACTIVE            ALMINH

Command Completed.
```

2. Follow local procedures to troubleshoot and repair the secondary E1/T1 High Speed clock.
3. If one of the reference clocks is still not functioning, reseal that TDM card.
4. If one of the reference clocks is still not functioning, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0196 - 1114-PHS, 1114-SHS,1116-PHS clks failed

This message indicates the following clocks failed:

- The primary High Speed clock for the TDM card in slot 1114
- The secondary High Speed clock for the TDM card in slot 1114
- The primary High Speed clock for the TDM card in slot 1116

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0196 ** HS CLOCK SYSTEM 1114-PHS, 1114-SHS,1116-PHS clks failed
```

Alarm Level: Major

Recovery

1. Use the **rept-stat-clk** command to determine the current clock configuration. Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORTHAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK                                PST          SST          AST
ALARM STATUS      = No Alarms.             IS-NR        ACTIVE        ALMINH
# Cards using CLK A = 009                   # Cards with bad CLK A = 000
# Cards using CLK B = 000                   # Cards with bad CLK B = 009
# Cards using CLK I = 000

HS SYSTEM CLOCK                                PST          SST          AST
ALARM STATUS      = No Alarms.             IS-NR        ACTIVE        ALMINH
# Cards using HSCLK A = 001                  # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000                  # Cards with bad HSCLK B = 002
```

```

# Cards using HSCLK I = 000
Command Completed.
;

```

2. Follow local procedures to troubleshoot and repair the primary E1/T1 High Speed clock.

3. If one of the reference clocks is still not functioning, reseal the associated TDM card.

4. If one of the reference clocks is still not functioning, replace the associated TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0197 - All high speed clocks have failed

A fault has been detected on all high speed system clocks.

Example

```

RLGHNCXA21W 00-12-07 11:02:30 EST EAGLE 31.6.0
*C 0100.0197 *C HS CLOCK SYSTEM All high speed clocks have failed

```

Alarm Level: Critical

Recovery

1. Verify the status of the clock with the **rept-stat-clk** command. If both clocks are idle, check the source clock into the system. Follow local maintenance procedures to repair the source clock.

2. Verify the clock cables are connected to the shelf backplane (refer to the *Installation Manual* for cable location). If any cables are loose, reconnect the cable.

3. If the clock source is not at fault, try reseating the TDM cards.

4. If the message appears again, replace the TDM cards.

Corrective Maintenance

See Appendix A, *Card Removal/Replacement Procedures*.

5. If the fault still does not clear, contact the *Customer Care Center*, see page 1-12.
-

0198 - High speed clock alarm(s) cleared

All primary and secondary high speed clock sources are functioning.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0198 HS CLOCK SYSTEM High speed clock alarm(s) cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0199 - OA&M IP Security feature disabled

The Eagle OA&M IP Security Enhancements Feature is not operational. This UAM is issued because the temporary key for the QA&M IP Security feature has expired.

With this feature disabled, you do not have the tools to securely pass data across an otherwise non-secure network. Until the Eagle OA&M IP Security Enhancements Feature is restored, the Eagle cannot provide secure connections from approved clients, and does not protect sensitive passwords and information while in transit between the Eagle and a host.

Example

```
RLGHNCXA21W 03-03-03 12:01:43 EST EAGLE 35.0.0  
0047.0199 SECURITY SYSTEM OA&M IP Security feature disabled
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. First, to restore OA&M IP Security Enhancements feature, you must enable it permanently. To enable a control feature, you can purchase it from Tekelec. You will receive a feature access key to use with the **enable-ctrl-feat** command.
 2. Next, turn on the feature by using the **chg-ctrl-feat** command.
-

0200 - RCVRY-LKF: link available

The link has become available for SS7 signaling traffic. SS7 traffic has been restored to the link.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0200 SLK 1202,A nc00027 RCVRY-LKF: link available
          SLC=01 FECLLI=A1234567890 CLASS=MTP2
```

NOTE: The Class parameter in the example is optional. SS7IPGW and IPLIM links are considered high-speed links by the EAGLE 5 ISS. They are reported as CLASS=SAAL.

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0201 - REPT-LKF: remote NE loopback

This message indicates the link is in loopback. This alarm is repeated every 15 minutes until the loopback is deactivated.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0201 ** SLK 1205,A nc00027 REPT-LKF:remote NE loopback
          SLC=01 FECLLI=A1234567890 CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the loopback was established in error, enter the following command, specifying the location and port from the output message:

```
dact-lbp:loc=xxxx:port=y
```

where *xxxx* = the card location from the output

y = the port *A* or *B* from the output.

0202 - REPT-LKF: HWP - too many link interrupts

This message indicates the link has had numerous interruptions.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.202 ** SLK 1205,A nc00027 REPT-LKF:HWP - too many link interrupts  
SLC=01 FECLLI=A1234567890 CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. The number of interruptions has exceeded the threshold. This situation can be caused by excessive noise from unshielded cables, loose or disconnected cables.

2. Check the physical connections to the specified card.

3. Follow local procedures to test the link facilities.

0203 - REPT-LKF: lost data

The signaling link has lost data.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0203 ** SLK 1205,A nc00027 REPT-LKF:lost data
                SLC=03   FECLLI=testc11i                CLASS=MTP2

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

-
1. Check the physical connections to the signaling link.
-
2. Using an analyzer, test for level 1 and level 2 functions. Follow local procedures to test and return links to service.
-

0204 - REPT-LKF: XER - ERM threshold exceeded

The signal unit error rate monitor (ERM) has exceeded the threshold because there are too many errors on the link.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0204 ** SLK 1205,A nc00027 REPT-LKF:XER-ERM threshold exceeded
                SLC=01   FECLLI=A1234567890                CLASS=SAAL

```

Alarm Level: Major

Recovery

Follow local procedures to test the link facilities.

Corrective Maintenance

0205 - REPT-LKF: APF - lv1-2 T1 expd (ready)

The signaling link did not receive a fill-in or message signal unit after the proving period.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0313.0205 ** SLK 1205,A nc00027 REPT-LKF:APF-lv1-2 T1 expd (ready)
                SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0206 - REPT-LKF: APF - lv1-2 T1 expd (not ready)

The signaling link did not receive a fill-in or message signal unit after the proving period.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0313.0206 ** SLK 1205,A nc00027 REPT-LKF:APF - lv1-2 T1 expd (not ready)
                SLC=01 FECLLI=A1234567890 CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0207 - REPT-LKF: APF - lvl-2 T3 expired

The link did not receive an SIN or an SIE before the T3 timer expired.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0207 ** SLK 1205,A nc00027 REPT-LKF:APF - lvl-2 T3 expired
                SLC=03   FECLLI=testcli           CLASS=MTP2

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0208 - REPT-LKF: APF - lvl-2 T2 expired

The link did not receive an SIN, SIE, or SIOS.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0208 ** SLK 1205,A nc00027 REPT-LKF:APF - lvl-2 T2 expired
                SLC=03   FECLLI=testcli           CLASS=SAAL

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

Corrective Maintenance

0209 - REPT-LKF: APF - failed proving period

The signaling link has failed the proving period.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0209 ** SLK 1205,A nc00027 REPT-LKF: APF - failed proving period
                SLC=03 FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0210 - REPT-LKF: OSA - received SIO

The signaling terminal has received the status indication Out of Alignment from the far end.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0210 ** SLK 1205,A nc00027 REPT-LKF: OSA - received SIO
                SLC=03 FECLLI=testclli                CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0211 - REPT-LKF: OSA - received SIN

The signaling terminal has received the status indication normal proving from the far end.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0211 ** SLK 1205,A nc00027 REPT-LKF: OSA - received SIN
                SLC=03 FECLLI=testclli CLASS=MTP2

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0212 - REPT-LKF: OSA - received SIE

The signaling terminal has received the status indication emergency alignment, from the far end.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0212 ** SLK 1205,A nc00027 REPT-LKF: OSA - received SIE
                SLC=03 FECLLI=testclli CLASS=SAAL

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

Corrective Maintenance

0213 - REPT-LKF: OSA - received SIOS

The signaling link has received the status indication out of service from the far end.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0213 ** SLK 1205,A nc00027 REPT-LKF: OSA - received SIOS
                SLC=03 FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0214 - REPT-LKF: ABN - rcvd 2 of 3 invalid BSN

The link has received 2 out of 3 invalid backward sequence numbers (BSNs) from the far end.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0214 ** SLK 1205,A nc00027 REPT-LKF: ABN - rcvd 2 of 3 invalid BSN
                SLC=03 FECLLI=testclli                CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0215 - REPT-LKF: ABN - rcvd 2 of 3 invalid FIB

The signaling link has received 2 out of 3 invalid forward indicator bits (FIB) from the far end.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0215 ** SLK 1205,A nc00027 REPT-LKF: ABN-rcvd 2 of 3 invalid FIB
                SLC=03 FECLLI=testclli CLASS=MTP2

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0216 - REPT-LKF: remote congestion timeout

The remote node has been in congestion too long. The T6 timer has timed out.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0216 ** SLK 1205,A nc00027 REPT-LKF:remote congestion timeout
                SLC=03 FECLLI=testclli CLASS=SAAL

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

Corrective Maintenance

0217 - REPT-LKF: XDA - excess acknowledge delay

The far end node is taking too long to acknowledge the messages sent to it by the signaling terminal. The T7 timer has timed out.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0217 ** SLK 1205,A nc00027 REPT-LKF: XDA-excess acknowledge delay
                SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0218 - REPT-LKF: COO - rcvd changeover order

The signaling link has received a changeover order from the far end.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0218 ** SLK 1205,A nc00027 REPT-LKF:COO-rcvd changeover order
                SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If the problem persists, follow local procedures to determine why the far-end is not responding correctly.

0219 -REPT-LKF: false congestion restart

This message indicates the signaling link has entered a congestion state even though the traffic on the linkset is not high enough to cause congestion. For example, if the link has a high number of retransmissions, the throughput on the link could drop enough to cause congestion on the link. A T31 timer has started. If the link stays in congestion for a specified period, the link is restarted.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0219 ** SLK 1205,A nc00027 REPT-LKF:false congestion restart
                SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

-
1. Activate measurements using the **chg-meas:collect=on** command. This starts measurements collection.
-
2. If the link is placed OOS-MT, use the measurements collected over the appropriate time period to determine the cause, and determine which action is now necessary.

NOTE: See Chapter 4, *Measurements* for traffic measurements information.

0220 - REPT-LKF: MTP link restart delayed

This message indicates that a link has gone in and out-of-service. To avoid links going in and out-of-service repeatedly, the EAGLE 5 ISS system delays restarting a link if the link has an unstable history.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0220 ** SLK 1205,A nc00027 REPT-LKF:MTP link restart delayed
                SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional. SS7IPGW and IPLIM links are considered high-speed links by the EAGLE 5 ISS system. They are reported as CLASS=SAAL.

Alarm Level: Major

Recovery

The link should become available. If the problem persists, contact the *Customer Care Center*, see page 1-12.

0221 - REPT-LKF: X25 link unavailable

This message indicates that the specified X.25 link is out-of-service.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0221 ** SLK 1205,A nc00027 REPT-LKF:X25 link unavailable
                SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. To check the status of the X.25 signaling link, enter the **rept-stat-slk** command with the port and card location specified from the output message above. Following is an example of the command output:

```
RLGHNCXA03W 00-03-14 17:00:00 EST EAGLE 35.0.0
SLK   LSN      CLLI      PST      SST      AST
1205,A nc00027 testclli  OOS-MT   Unavail  ----
ALARM STATUS      = * REPT-LKF:X25 link unavailable
UNAVAIL REASON    = X25FL LI NA
```

2. Note the UNAVAIL REASON field in the output message. Following are the reasons the link is unavailable:
 - a. LD – The signaling link has lost data
 - b. X25FL – X.25 link has failed.
 - c. NA – The signaling link is not aligned
-

3. If the UNAVAIL REASON indicates an alignment problem, use the **duct-slk** command followed by the **act-slk** command to place the link into service.

4. If the UNAVAIL REASON still indicates an alignment problem, check the status of the card by entering the **rept-stat-card** command for the specified card.

5. If the **rept-stat-card** command indicates a problem with the card, reset the card by entering the **init-card** command with the specified card location. If the card still does not align, try first reseating the card, then replacing the card.
See Appendix A, *Card Removal/Replacement Procedures*.

6. If the problem persists, verify the adjacent X.25 node has the link activated.

7. Determine if the link failure is due to bad carrier facilities. Using transmission test equipment test the X.25 link end-to-end. If a protocol analyzer is available, bad CRCs in the X.25 protocol indicates excessive noise on the link.

8. If the carrier facilities are good, but the problem persists, determine if the X.25 adjacent node has a bad X.25 card by swapping the existing card with a known good card.

9. If the X.25 link is still unavailable, contact the *Customer Care Center*, see page 1-12.

0222 - REPT-LKF: remote FE loopback

This message indicates that the specified link has been looped back from the far-end.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0222 ** SLK 1205,A nc00027 REPT-LKF:remote FE loopback
SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

If you wish to stop the loopback testing, notify the far-end to stop the testing.

0223 - REPT-LKF: remote NE loopback cleared

This message indicates the link was in loopback and now the loopback has been deactivated.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0223 SLK 1205,A nc00027 REPT-LKF:remote NE loopback cleared
          SLC=01 FECLLI=A1234567890 CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0224 - REPT-LKF: link test failed

This message indicates that the specified link was automatically removed from service (OOS) because of a failed signaling link test.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0224 ** SLK 1205,A nc00027 REPT-LKF:link test failed
          SLC=03 FECLLI=testccli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. Check the physical connections to the signaling link.

2. Follow local procedures to check link data at both ends.

3. Using an analyzer, test for level 1 and level 2 functions. Follow local procedures to test and return links to service.

0230 - REPT-LKF: local blocked - thermal

All links to the HC MIM are blocked because the the temperature of the HC MIM is above operational limits.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0230 ** SLK 1205,A nc00027 REPT-LKF: local blocked - thermal
                SLC=03  FECLLI=testclli                CLASS=MTP2

```

Alarm Level: Major

Recovery

Review the output. Correct the associated alarms to clear this alarm.

0232 - REPT-LKF: remote blocked

The link is blocked due to an event at the far-end.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0232 ** SLK 1205,A nc00027 REPT-LKF: remote blocked
                SLC=03  FECLLI=testclli                CLASS=MTP2

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Corrective Maintenance

Recovery

Contact the far-end office to verify a processor outage and correct.

0233 - REPT-LINK-MANUAV: local blocked

A local technician has put the signaling link in processor outage.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0233 ** SLK 1205,A nc00027 REPT-LINK-MANUAV: local blocked
                SLC=03 FECLLI=testelli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. Verify the condition is not intentional. If it is not intentionally blocked, enter the following command to place the link in service:

```
ublk-slk:loc=xxxx:port=y
```

where *xxxx* is the card location

y is the port

2. This should place the processor back into service. The following message should appear.

```
RLGHNCXA03W 00-02-07 11:11:28 EST EAGLE 35.0.0
Local processor outage being cleared.
```

0234 - REPT-LKF: RMI remote inhibited

The link has been remotely inhibited by a technician at the far-end office.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0234 ** SLK 1205,A nc00027 REPT-LKF: RMI remote inhibited
```

SLC=03 FECLLI=testcli CLASS=MTP2

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office to verify the reason for inhibiting the link.

0235 - REPT-LINK-MGTINH: local inhibited

The link has been inhibited locally by a technician.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0235 ** SLK 1205,A nc00027 REPT-LINK-MGTINH: local inhibited
                SLC=03 FECLLI=testcli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. Ensure the link should not be inhibited. Enter the following command to place the link in service.

unhb-slk:loc=xxxx:port=y

where *xxxx* is the card location *y* is the port

2. The link should begin transmitting and receiving MSUs. The following message should appear.

```
RLGHNCXA03W 00-02-07 11:11:28 EST EAGLE 35.0.0
Allow link message sent to card.
```

0236 - REPT-LKF: not aligned

The signaling link has lost alignment. It can no longer carry traffic.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0236 ** SLK 1205,A nc00027 REPT-LKF: not aligned
                SLC=03 FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. Put the link into a local loopback state.

2. If the link does not align, enter the following command to determine the status of the card.

```
rept-stat-card
```

3. If the card has reinitialized, the system software will restore the card. If both links on the card are out of service, but the card is IS-NR (In-Service-Normal), reseal the card.

4. If the links restore after reseating the card, this procedure is complete.

5. If the links do not restore after reseating the card, enter the following command:

```
rmv-card:loc=xxxx
```

where *xxxx* = the card location.

6. After the command is complete, enter the following command:

```
rst-card:loc=xxxx
```

where *xxxx* = the card location.

7. If the links restore after restoring the card, this procedure is complete.

8. If the fault does not clear, replace the indicated card.

See Appendix A, *Card Removal/Replacement Procedures*.

9. If the link aligns when it is in a loopback state, enter the following command to determine the DPC of the far end office:

```
rtrv-slk:loc=xxxx
```

where *xxxx* = the card location.

Contact the far end office to determine if the trouble is at that end.

10. If the fault does not clear, determine if any other links on the same carrier are affected. If other links on the same carrier are affected, you may have trouble in your carrier.
-
11. Using measurements, review the activity over the last day and determine if there were a number of retransmits, message losses and so forth. Use this data to isolate the problem to the appropriate level (MTP level 2, MTP level 3, and so forth). Use your company maintenance procedures for testing and clearing faults in carriers.
-

0237 - REPT-LFK: LM Timer NO-CREDIT expired

The remote node has held the local node in a no-credit state for too long.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0237 ** SLK 1205,A nc00027 REPT-LKF: LM Timer NO-CREDIT expired
                SLC=03 FECLLI=testcli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office to test and correct the link congestion problem.

0238 - REPT-LKF: XDA-Timer NO-RESPONSE expired

The far end is not responding to the outgoing POLL messages.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0238 ** SLK 1205,A nc00027 REPT-LKF: Timer NO-RESPONSE expired
                SLC=03 FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office to determine why no STAT messages are being sent.

0239 - REPT-LKF: MBL-local processor outage

Indicates a spontaneous or management-initiated processor outage.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0239 ** SLK 1205,A nc00027 REPT-LKF:MBL - local processor outage
                SLC=03 FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. Enter the following command to determine whether the outage was spontaneous or management-initiated:

```
rept-stat-slk:12stats=both
```

2. Analyze the output. If the processor outage was spontaneous, contact the *Customer Care Center*, see page 1-12.
-

0240 - REPT-LKF: rcvd SSCOP END-proc outage

The far end sent an END processor outage protocol data unit (PDU).

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0240 ** SLK 1205,A nc00027 REPT-LKF:rcvd SSCOP END-proc outage
                SLC=03 FECLLI=testclli                CLASS=MTP2

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office to verify a processor outage and the cause.

0241 - REPT-LKF: rcvd SSCOP END-out of service

The far end sent an END out of service protocol data unit (PDU).

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0241 ** SLK 1205,A nc00027 REPT-LKF:rcvd SSCOP END-out of service
                SLC=03 FECLLI=testclli                CLASS=MTP2

```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office to correct the problem.

0242 - REPT-LKF: rcvd SSCOP END-protocol error

A protocol error has occurred on the far end.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0242 ** SLK 1205,A nc00027 REPT-LKF:rcvd SSCOP END-protocol error
                SLC=03 FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office to test and correct the problem.

0243 - REPT-LKF:rcvd SSCOP END-mgmnt initiated

The MAAL layer (not a user) on the far end released a link.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0243 ** SLK 1205,A nc00027 REPT-LKF:rcvd SSCOP END-mgmnt initiated
                SLC=03 FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office for the details about releasing the link.

0244 - REPT-LKF: FAC - DS1 LOS failure

A level 1 facility outage: loss of signal.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
```

```
** 0014.0244 ** SLK 1205,A nc00027 REPT-LKF:FAC - DS1 LOS failure
                SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. Enter the following command to display the service data:

```
rept-stat-slk:l2stats=both
```

2. Check the physical connections to the signaling link.
 3. Using an analyzer, test for level 1 and level 2 functions. Follow local procedures to test and return links to service.
-

0245 - REPT-LKF: FAC - DS1 LOF failure

A level 1 facility outage: loss of frame.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0245 ** SLK 1205,A nc00027 REPT-LKF:FAC - DS1 LOF failure
                SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

1. Enter the following command to display the service data:

```
rept-stat-slk:l2stats=both
```

2. Check the physical connections to the signaling link.
-

Corrective Maintenance

- Using an analyzer, test for level 1 and level 2 functions. Follow local procedures to test and return links to service.
-

0246 - REPT-LKF: FAC - DS1 LCD failure

A level 1 facility outage: loss of cell delineation.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0246 ** SLK 1205,A nc00027 REPT-LKF:FAC - DS1 LCD failure
                SLC=03 FECLLI=testccli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

- Enter the following command to display the service data:

```
rept-stat-slk:12stats=both
```

- Check the physical connections to the signaling link.
 - Using an analyzer, test for level 1 and level 2 functions. Follow local procedures to test and return links to service.
-

0247 - REPT-LKF: XER - ISERM threshold exceeded

The in-service error rate monitor (ISERM) maintains a counter to estimate the PDU error rate. The ISERM counter exceeded the estimated threshold.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0247 ** SLK 1205,A nc00027 REPT-LKF:XER - ISERM threshold exceeded
                SLC=03 FECLLI=testccli CLASS=MTP
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Major

Recovery

Contact the far-end office to determine why the error rate is so high.

0250 - MPS available

This indicates that a previous MPS platform association loss has been reestablished and is currently functioning properly.

Example

```
station1234 99-03-30 16:28:08 EST EAGLE 35.0.0
3535.0250    MPS A           MPS available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0261 - MPS unavailable

This message indicates that the EAGLE 5 ISS system is unable to communicate with the MPS or the MPS has an internal failure.

Example

```
station1234 99-03-30 16:28:08 EST EAGLE 35.0.0
*C 3535.0261 *C MPS A           MPS unavailable
```

Alarm Level: Critical

Recovery

1. This message reports that communication with the MPS is not occurring. You should verify the MPS is operating and the IP link is functioning by performing the following steps.

2. Verify the IP connection from the MPS to Eagle is operating. If not, restore the communication link between the them.

3. Once the communications link with the MPS is assured, verify the status of the MPS. The following example shows a possible system response when a specified DSM card is queried with the **rept-stat-mps** command.

```

rept-stat-mps:loc=1205
rlghncxa03w 01-03-07 10:23:93 EST EAGLE 35.0.0
CARD  VERSION      TYPE  PST           SST           AST
1205  -----      DSM   OOS-MT-DSBLD Manual        -----
      DSM PORT A
      ALARM STATUS   = ** 0084 IP Connection
Unavailable
      DSM PORT B
      ALARM STATUS   = ** 0084 IP Connection
Unavailable
      INP STAT       = -----
      CARD ALARM STATUS = No Alarms.
      DSM MEMORY USAGE = 0%
Command Completed.
;

```

Determine from the output whether the MPS is active and available for service. If it is not, refer to the *ELAP Administration Manual* or *EPAP Administration Manual* about restoring an MPS server to the active state.

0264 - REPT-LINK-CGST: congestion level 0 to 1

The amount of MSU traffic on the link has reached a congestion level 1.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0264 SLK 1205,A nc00027 REPT-LINK-CGST: congestion level 0 to 1
          SLC=03 FECLLI=testccli CLASS=SAAL

```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Since congestion usually peaks and subsides quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements for traffic measurements information*.

2. Ensure that there are enough links in the linkset based on the traffic load.
-

0265 - REPT-LINK-CGST: congestion level 1 to 2

The amount of MSU traffic on the link has reached a congestion level 2.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0265   SLK 1205,A nc00027 REPT-LINK-CGST: congestion level 1 to 2
           SLC=03   FECLLI=testclli                CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Since congestion usually peaks and subsides quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements for traffic measurements information*.

2. Ensure that there are enough links in the linkset based on the traffic load.
-

0266 - REPT-LINK-CGST: congestion level 2 to 3

The congestion on a link has risen to level 3. That is, the amount of MSU traffic on the signaling link has reached the onset level defined for congestion level 3. This usually indicates the node is under provisioned.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0266 SLK 1205,A nc00027 REPT-LINK-CGST: congestion level 2 to 3
          SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Since congestion usually peaks and subsides quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements for traffic measurements information*.

2. Ensure that there are enough links in the linkset based on the traffic load.
-

0267 - RCVRY-LINK-CGST:congestion level 3 to 2

The congestion on a link has fallen to level 2. That is, the amount of MSU traffic on the signaling link has reached the abatement level defined for congestion level 3. This indicates congestion is clearing.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0267 SLK 1205,A nc00027 RCVRY-LINK-CGST:congestion level 3 to 2
          SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

Since congestion usually peaks and subsides quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements*, for traffic measurements information.

0268 - RCVRY-LINK-CGST:congestion level 2 to 1

The congestion on a link has fallen to level 1. That is, the amount of MSU traffic on the signaling link has reached the abatement level defined for congestion level 2. This indicates congestion is clearing.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0268 SLK 1205,A nc00027 RCVRY-LINK-CGST:congestion level 2 to 1
          SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

Since congestion usually peaks and subsides quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements* for traffic measurements information.

0269 - RCVRY-LINK-CGST: congestion has cleared

This message is generated when the congested state of a link has been removed.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0269 SLK 1205,A nc00027 RCVRY-LINK-CGST: congestion has cleared
          SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0270 - REPT-LINK-CGST: discard level 0 to 1

The amount of MSU traffic on the link has reached an overflow level 1. Messages with an SIO priority of 0 are being discarded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0270 SLK 1205,A nc00027 REPT-LINK-CGST: discard level 0 to 1
          SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Since overflow conditions usually peak and subside quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements* for traffic measurements information.

2. Ensure that there are enough links in the linkset based on the traffic load.
-

0271 - REPT-LINK-CGST: discard level 1 to 2

The link has reached an overflow level 2. The percentage of MSU traffic on the signaling link has exceeded the discard/overflow level defined for level 2. Messages with SIO priority of 0 or 1 are being discarded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0271 SLK 1205,A nc00027 REPT-LINK-CGST: discard level 1 to 2
          SLC=03 FECLLI=testccli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Since overflow conditions usually peak and subside quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements for traffic measurements information*.

2. Ensure that there are enough links in the linkset based on the traffic load.
-

0272 - REPT-LINK-CGST: discard level 2 to 3

The amount of MSU traffic on the link has reached an overflow level 3. Messages with an SIO priority of 0, 1, or 2 are being discarded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0272 SLK 1205,A nc00027 REPT-LINK-CGST: discard level 2 to 3
          SLC=03 FECLLI=testccli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Since overflow conditions usually peak and subside quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements for traffic measurements information*.

2. Ensure that there are enough links in the linkset based on the traffic load.
-

0273 - RCVRY-LINK-CGST: discard level 3 to 2

The amount of MSU traffic on the link has reached an overflow level 2 and congestion is clearing. Messages with an SIO priority of 0 or 1 are being discarded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0273 SLK 1205,A nc00027 RCVRY-LINK-CGST: discard level 3 to 2
          SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

Since overflow conditions usually peak and subside quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements* for traffic measurements information.

0274 - RCVRY-LINK-CGST: discard level 2 to 1

The amount of MSU traffic on the link has decreased to an overflow level 1 and congestion is clearing. Messages with an SIO priority of 0 are being discarded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0274 SLK 1205,A nc00027 RCVRY-LINK-CGST: discard level 2 to 1
          SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

Since overflow conditions usually peak and subside quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, *Measurements* for traffic measurements information.

0275 - RCVRY-LINK-CGST: discard has cleared

The overflow level of the link has reached level 0. No messages are being discarded.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0275 SLK 1205,A nc00027 RCVRY-LINK-CGST: discard has cleared
          SLC=03 FECLLI=testclli CLASS=MTP2
```

NOTE: The Class parameter in the example is optional.

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0276 - Insufficient HW for IP7 provisioning

The DCM or EDCM does not have enough memory to provision for sockets and associations.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0276 ** CARD 1115 DCM Insufficient HW for IP7 provisioning
HW VERIFICATION CODE: xxx
```

Alarm Level: Major

Recovery

1. If this message contains the optional line 'HW VERIFICATION CODE: xxx':

- Decode the xxx value and correct the indicated problem.

See Appendix F, *Auto-Inhibit HW Verification Codes*.

- After correcting the problem, the card will be in out-of-service maintenance disabled state (OOS-MT-DSBLD). Restore the card back to in-service normal state (IS-NR) with the **alw-card** command.

If this message does not contain the optional line 'HW VERIFICATION CODE: xxx', continue with the next step.

2. Verify the DCM/EDCM hardware. Verify the provisioning rules.

Table 3-21. Maximum Sockets/Associations per Card

Card Type	Socket to Association Ratio	Maximum Associations	Maximum Sockets
DCM	8:1	50	4
EDCM	1:1	50	50

-
- If necessary, reduce the number of associations to four or less for DCMs or 50 or less for EDCMs. Refer to the *Database Administration Manual - SS7* for detailed provisioning information.
-

0277 - AS Unavailable

This Application Server (AS) is not available to carry service traffic. All ASPs in this AS are not available to carry service traffic.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0277 ** IP7 as3 AS Unavailable
```

Alarm Level: Major

Recovery

- Enter the following command to generate a report of the AS association status.

rept-stat-assoc

Following is an example of the output:

```
rlghncxa03w 01-03-04 12:57:21 EST EAGLE 28.1.0
ASSOCIATION      PST          SST
a1                IS-NR       ASP-ACTIVE
a2                IS-ANR      ASP-ACTIVE
a3                OOS-MT-DSBLD ----
a4                OOS-MT      Connecting
a5                OOS-MT      ASP-DOWN
a6                OOS-MT      ASP-UP
Command Completed
```

Corrective Maintenance

2. Notify the PSTN associated with the disabled AS of the problem.
-

0278- AS Available

The Application Server (AS) is now available to carrying traffic.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0278 IP7 as2 AS Available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0279 - AS Restricted

The Application Server (AS) is carrying traffic, but one or or of the Application Server Processes (ASPs) is not functioning properly.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 28.1.0
* 0014.0279 * IP7 as2 AS Resticted
```

Alarm Level: Minor

Recovery

1. Enter the following command to generate a report of the AS association status.

rept-stat-assoc

Following is an example of the output:

```
rlghncxa03w 01-03-04 12:57:21 EST EAGLE 28.1.0
```

ASSOCIATION	PST	SST
a1	IS-NR	ASP-ACTIVE
a2	IS-ANR	ASP-ACTIVE
a3	OOS-MT-DSBLD	----
a4	OOS-MT	Connecting
a5	OOS-MT	ASP-DOWN
a6	OOS-MT	ASP-UP
Command Completed		

2. Notify the PSTN associated with the restricted AS of the problem.
-

0280 - AS Unrestricted

The Application Server (AS) is carrying traffic. A previous restriction has been cleared.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0280 IP7 as2 AS Unrestricted
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0281 - LNP Ported TNs exceeds Feat. Capacity

The number of LNP ported TNs is greater than the capacity this feature supports.

This UAM appears when the DSM VSCCP cards are cold-restarted after the ELAP RTDBs were pre-populated offline with RTDB TN totals that exceed either the TN Quantity Feature keys capacities that are currently configured for the Eagle.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0281 ** CARD 1115 DCM LNP Ported TNs exceeds Feat. Capacity
```

Alarm Level: Major

Recovery

1. Issue the **rtrv-ctrl-feat** command to verify the quantity of TNs specified for this system.
 2. Either reduce the number of TNs to the level specified by the output of step 1, or respecify the capacity with the **enable-ctrl-feat** command.
-

0282 - LNP Ported TNs Capacity Normal

This UAM is a clearing message that appears when the operator enables the TN feature key quantities on the Eagle that exceed the quantities currently populated in the ELAP RTDBs.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0282 CARD 1115 DCM LNP Ported TNs Capacity Normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0283 - LNP Ported LRNs approaching Feat. Capacity

The number of LNP ported LRNs is greater than the capacity this feature supports.

This UAM appears when the DSM VSCCP cards are cold-restarted after the ELAP RTDBs were pre-populated offline with LRN totals that exceed the LRN Quantity Feature keys capacities that are currently configured for the EAGLE 5 ISS.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0  
** 0100.0283 ** CARD 1115 DCM LNP Ported LRNs approaching Feat. Capacity
```

Alarm Level: Major

Recovery

1. Enter the following command to verify the quantity of LRNs specified for this system:

```
rtrv-ctrl-feat
```

2. Either reduce the number of LRNs to the level specified by the output of Step 1, or respecify the capacity with the **enable-ctrl-feat** command.
-

0284 - LNP Ported LRNs Capacity Normal

This UAM is a clearing message that appears when the operator enables the LRN feature key quantities on the Eagle that exceed the quantities currently populated in the ELAP RTDBs.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0  
** 0100.0284 CARD 1115 DCM LNP Ported LRNs Capacity Normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0285 - LNP Ported NPAs approaching Feat. Capacity

The number of LNP ported NPANXXs is greater than the capacity this feature supports.

Corrective Maintenance

This UAM appears when the DSM VSCCP cards are cold-restarted after the ELAP RTDBs were pre-populated offline with NPANXX totals that exceed the NPANXX Quantity Feature keys capacities that are currently configured for the EAGLE 5 ISS.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0285 ** CARD 1115 DCM LNP Ported NPAs approaching Feat. Capacity
```

Alarm Level: Major

Recovery

1. Enter the following command to verify the quantity of NPANXXs specified for this system:

```
rtrv-ctrl-feat
```

2. Either reduce the number of NPANXXs to the level specified by the output of Step 1, or respecify the capacity with the **enable-ctrl-feat** command.
-

0286 - LNP Ported NPAs Capacity Normal

This UAM is a clearing message that appears when the operator enables the NPANXX feature key quantities on the Eagle that exceed the quantities currently populated in the ELAP RTDBs.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0286 ** CARD 1115 DCM LNP Ported NPAs Capacity Normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0287 - RTDB Table Level 2 FAK Cap Exceeded

This UAM warns the customer that the total TNs in the LNP database has reached 95% of the LNP database Feature Access Key (FAK) capacity.

Example

```

RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0287 *C LNP 1115 DCM RTDB Table Level 2 FAK Cap Exceeded
TABLE: TN Threshold Value: 95%
Exceeds 88320000 of 96000000

```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the database threshold:

```
rtrv-th-alm
```

If the threshold is below 95% go to Step 2.

2. Enter the following command:

```
chg-th-alm:lnptndblv2=xxxx
```

where *xxxx*=percentage.

3. If the threshold is at 95% contact the *Customer Care Center*, see page 1-12.
-

0288 - RTDB Table Level 2 FAK Cap Exceeded

This UAM warns the customer that the total TNs in the LNP database has reached 80% of the LNP database Feature Access Key (FAK) capacity.

Corrective Maintenance

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0288 ** LNP 1115 DCM RTDB Table Level 1 FAK Cap Exceeded
TABLE: TN Threshold Value: 80%
Exceeds 76800000 of 96000000
```

Alarm Level: Major

Recovery

1. Enter the following command to verify the database threshold:

```
rtrv-th-alm
```

If the threshold is below 80% go to Step 2.

2. Enter the following command:

```
chg-th-alm:lnptndblv2=xxxx
```

where *xxxx*=percentage.

3. If the threshold is at 80% contact the *Customer Care Center*, see page 1-12.
-

0289 - RTDB Table FAK Capacity Normal

This UAM appears when the LNP FAK alarm condition no longer exists.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
0100.0289 LNP 1115 DCM RTDB Table FAK Capacity Normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous condition has been corrected. No further action is necessary.

0290 - GLS is available

The TSM cards configured as generic loader services (GLS) are functioning. These cards are used to download gateway screening (GWS) data to the LIMs.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0290 GLS SYSTEM GLS is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous condition has been corrected. No further action is necessary.

0291 - GLS is at minimum service limit

Only one TSM configured for generic loader services (GLS) is in service. When this module fails, GLS is unavailable.

Generic loader services (GLS) are used to download gateway screening data to the LIMs. GLS consists of TSM cards configured with GLS software. They are only needed when LIMs or TSMs must be reloaded.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0291 ** GLS SYSTEM GLS is at minimum service limit
```

Alarm Level: Major

Recovery

-
1. Use the **rept-stat-card** command to verify status of the TSM cards providing GLS. This command identifies the cards still IS-NR (In-Service – Normal) and those cards which are out of service. For example, enter:

```
rept-stat-card
```


Corrective Maintenance

Following is an example of the output:

```
RLGHNCXA03W 00-09-27 16:43:42 EST EAGLE 31.3.0
CARD  VERSION  TYPE  APPL  PST  SST  AST
1113  022-000-000  MCAP  OAM  IS-NR  Active  -----
1114  -----  TDM  -----  -----  -----  -----
1115  022-000-000  MCAP  OAM  IS-NR  Standby  -----
1116  -----  TDM  -----  -----  -----  -----
1117  -----  MDAL  -----  IS-NR  Standby  -----
1204  022-000-000  LIMOCU  SS7ANSI  OOS-MT  Isolated  -----
1205  022-000-000  LIMOCU  SS7ANSI  IS-NR  Active  -----
1206  022-000-000  LIMOCU  SS7ANSI  OOS-MT  Isolated  -----
1207  022-000-000  LIMOCU  SS7GX25  OOS-MT  Isolated  -----
1211  022-000-000  LIMV35  SS7GX25  IS-NR  Active  -----
1212  022-000-000  ACMENET  STPLAN  IS-NR  Active  -----
1216  022-000-000  TSM  SCCP  IS-ANR  Standby  -----
1218  022-000-000  TSM  GLS  OOS-MT  Isolated  -----
1312  022-000-000  LIMDS0  SS7ANSI  IS-NR  Active  -----
1313  022-000-000  LIMOCU  SS7ANSI  OOS-MT  Idle  -----
Command Completed.
```

2. Use **init-card** command to reinitialize the card and force gateway screening (GWS) data to be downloaded from the active MASP to the TSM.
3. After GWS data has been successfully downloaded, use **rept-stat-card** to verify the card(s) have returned to service.
4. If the card(s) do not return to IS-NR, then reseal the card(s).
5. If the card(s) still do not return to IS-NR, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0292 - GLS is not available

Generic loading services (GLS) is not able to function; the EAGLE 5 ISS may not be performing gateway screening (GWS).

At least one card should be returned to IS-NR status. This makes GLS available and changes the alarm level to major (0291 - GLS is at minimum service limit). The alarm clears after two TSM cards have returned to IS-NR.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0292 *C GLS SYSTEM          GLS is not available
```

Alarm Level: Critical

Recovery

1. Use the **rept-stat-card** command to verify status of the TSM cards providing GLS. For example, enter:

rept-stat-card

Following is an example of the output:

```

RLGHNCXA03W 00-09-27 16:43:42 EST EAGLE 31.3.0
CARD  VERSION      TYPE  APPL  PST      SST      AST
1113  022-000-000  MCAP  OAM    IS-NR    Active   -----
1114  -----      TDM  -----  -----  -----  -----
1115  022-000-000  MCAP  OAM    IS-NR    Standby  -----
1116  -----      TDM  -----  -----  -----  -----
1117  -----      MDAL  -----  IS-NR    Standby  -----
1204  022-000-000  LIMOCU  SS7ANSI  OOS-MT  Isolated  -----
1205  022-000-000  LIMOCU  SS7ANSI  IS-NR    Active   -----
1206  022-000-000  LIMOCU  SS7ANSI  OOS-MT  Isolated  -----
1207  022-000-000  LIMOCU  SS7GX25  OOS-MT  Isolated  -----
1211  022-000-000  LIMV35  SS7GX25  IS-NR    Active   -----
1212  022-000-000  ACMENET  STPLAN  IS-NR    Active   -----
1216  022-000-000  TSM      SCCP    IS-ANR  Standby  -----
1218  022-000-000  TSM      GLS     OOS-MT  Isolated  -----
1312  022-000-000  LIMDS0  SS7ANSI  IS-NR    Active   -----
1313  022-000-000  LIMOCU  SS7ANSI  OOS-MT  Idle     -----
Command Completed.

```

2. Use **init-card** command to reinitialize the card and force gateway screening (GWS) data to be downloaded from the active MASP to the TSM.
-

3. The following message should appear.

```

RLGHNCXA03W 00-02-07 11:11:28 EST EAGLE 35.0.0
Init Card command issued to card 1218

```

4. After GWS data has been successfully downloaded, use **rept-stat-card** to verify the card(s) have returned to service.
-

5. If the card(s) do not return to IS-NR, then reseal the card(s).
-

6. If the card(s) still do not return to IS-NR, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0293 - GLS have been removed from the system

Generic loading services (GLS) has been removed from the system, because all TSMs configured for GLS have been deleted through database administration commands.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0293 GLS SYSTEM GLS have been removed from the system
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message alerts the user that all TSMs configured for GLS have been deleted from the system. No action is necessary unless gateway screening is required.

0294 - REPT-ALMINH: alarm output PERM inhibited

This message indicates that alarms for the indicated device are permanently inhibited at the indicated level.

Example

```
tekelecstp 99-01-19 14:56:48 EST EAGLE 31.5.0  
0100.0294 CARD 1117 MDAL REPT-ALMINH: alarm output PERM inhibited  
ALARM INHIBIT LEVEL: CRIT
```

NOTE: The output can vary significantly. Alarm Inhibit alarms are generic and the output varies depending on which alarm/device is inhibited. This example utilizes the CARD format.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0295 - REPT-ALMINH: alarm output enabled

This message indicates the restoration of the reporting of alarms for the indicated device at the indicated level.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 31.5.0
0100.0295    NDC SYSTEM                REPT-ALMINH: alarm output enabled
                ALARM INHIBIT LEVEL:    MAJR

```

NOTE: The output can vary significantly. Alarm Inhibit alarms are generic and the output varies depending on which alarm/device is inhibited. This example utilizes the NDC SYSTEM format.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0296 - REPT-ALMINH: alarm output TEMP inhibited

This message indicates that alarms for the indicated device are temporarily inhibited at the indicated level.

Example

```

tekelecstp 99-01-19 14:56:48 EST EAGLE 31.5.0
0045.0296   DLK 1104,A1                REPT-ALMINH: alarm output TEMP Inhibit
                ALARM INHIBIT LEVEL:    MINR

```

NOTE: The output can vary significantly. Alarm Inhibit alarms are generic and the output varies depending on which alarm/device is inhibited. This example utilizes the DATA LINK format.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0297 - Incorrect port configuration

This message indicates that a MPL card with more than ports A and B provisioned has been replaced with a 2 port DS0-A LIM card. This alarm is also generated if an MPL card is placed in a LIM slot which has either port A or port B provisioned as non-56K bps link speed.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0297 ** CARD 1108 SS7ML Incorrect LIM port configuration
HW VERIFICATION CODE: xxx
```

Alarm Level: Major

Recovery

1. If this message contains the optional line 'HW VERIFICATION CODE: xxx':
 - Decode the xxx value and correct the indicated problem.
See Appendix F, *Auto-Inhibit HW Verification Codes*.
 - After correcting the problem, the card will be in *out-of-service maintenance disabled state* (OOS-MT-DSBLD). Restore the card back to *in-service normal state* (IS-NR) with the **alw-card** command.

2. If this message does not contain the optional line 'HW VERIFICATION CODE: xxx', perform either of the following:
 - Replace the LIM DS0-A card with an MPL card.OR
 - This card has only 2 ports. Re-provision this DS0-A card and provision only ports A and B. Refer to the *Database Administration Manual - SS7* for the correct procedures.

0298 - Card not using config. SCTP csum method

The IPLIMx/IPGWx card issues this UAM alarm when the card's active SCTP checksum algorithm does not match the configured SCTP checksum algorithm in the IP OPTIONS table.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0298 * CARD 1115 DCM Card not using config. Sctp csum method
```

Alarm Level: Minor**Recovery**

-
1. The Sctp checksum algorithm option is configured via the **chg-sg-opts** command and is stored in the IP OPTIONS table. The update applies to the IP OPTIONS tables on disk and IPLIMx/IPGWx card memory.

Note that when the Sctp checksum algorithm is updated, IPLIMx/IPGWx cards may not immediately change to the updated checksum algorithm. Before IPLIMx/IPGWx cards can use the configured Sctp checksum algorithm, one of the following conditions must exist.

- No Sctp associations exist on the IPLIMx/IPGWx card.
 - All Sctp associations provisioned on the IPLIMx/IPGWx card are **open=no**.
 - The IPLIMx/IPGWx card is initialized.
-

2. In an installed system, use either of two methods to condition the cards to accept the change in checksum algorithms:

- Card initialization (use the **init-card** command) or
- Change card association (**chg-assoc:aname=xxx:open=no**)

For details about these commands, refer to the *Commands Manual*.

3. Issue the **chg-sg-opts:sctp_csum=value** command to define the checksum algorithm to be used in all Sctp associations.
-

0299 - Config. Sctp csum method alarm cleared

The Sctp checksum UAM alarm is cleared when the card's active Sctp checksum algorithm matches the configured Sctp checksum algorithm.

Example

```
RLGHNCXA21W 03-02-07 11:02:30 EST EAGLE 35.0.0
```

Corrective Maintenance

```
0100.0299   CARD 1115 DCM Config. SCTP csum method alarm cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0300 -TVG Grant Failure

This message indicates that for some card in the system, the grant mechanism (as part of the Multicast Capacity Feature) failed for at least 60 seconds, or more than one time for a 15-second period. A TVG granter failure is defined as a TVG request that completes with a time-out (hardware or software) and/or a status value where the Granter Present bit is not set.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0300 ** CARD 1201 OAM TVG Grant Failure
```

Alarm Level: Major

Recovery

1. Enter the following command to verify the status of the TVG granter:

```
rept-stat-card:loc=xxxx:mode=full
```

where *xxxx* is the card location identified in the output.

Following is an example of the output:

```
RLGHNCXA03W 00-02-04 15:10:19 EST EAGLE 35.0.0
CARD  VERSION      TYPE  APPL      PST          SST          AST
1201  023-001-000  LIMATM  ATMANSI  IS-NR        Active
-----
ALARM STATUS      = No Alarms.
IMT VERSION       = 023-001-000
PROM VERSION      = 023-001-000
IMT BUS A         = Conn
IMT BUS B         = Conn
CLOCK A           = Idle
```

```

CLOCK B           = Active
CLOCK I           = Idle
MBD BIP STATUS    = valid
DB STATUS         = valid
DBD MEMORY SIZE   = 0M
SLK A PST         = OOS-MT           LS=1s1201   CLLI=-----
SLK B PST         = OOS-MT           LS=1s1201   CLLI=-----
SCCP SERVICE CARD = ----
SLAN SERVICE CARD = ----
SCCP TVG RESULT   = 24 hr: GDNHSI, 5 min: GDNHSI
SLAN TVG RESULT   = 24 hr: -D-H-I, 5 min: -D-H-I
SNM TVG RESULT    = 24 hr: GDNHSI, 5 min: -----
Command Completed.

```

2. The group ticket voucher status is displayed in these fields: **SCCP TVG RESULT** (for SCCP messages), **SLAN TVG RESULT** (for STPLAN messages), and **SNM TVG RESULT** (for SNM messages). Group ticket voucher status output is displayed as a series of these letters:

G – Service Granted. Indicates normal system behavior.

D – Service Denied. Indicates an overload, but the group ticket voucher hardware and software are working correctly.

N – No granter in the system. For GTT or STPLAN traffic, there may be no TSM-SCCP cards or ACMs in the system. If there are TSM-SCCP cards or ACMs in the system, then a serious failure is indicated (hardware or software bug or hardware failure).

H – Hardware time-out. Indicates the hardware timed out waiting for a group ticket voucher packet to return. Group ticket voucher packets can be lost when a card is plugged in or booted. This is a serious condition if cards have not been connecting or disconnecting from the IMT.

S – Software time-out. No result was ever returned from hardware, indicating a probable hardware failure.

I – Invalid result from hardware.

0301 -TVG Grant Recovery

This message indicates that the Multicast Capacity Feature for handling SNM, SCCP, or SLAN traffic is functioning, and a previous problem has cleared.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0301     CARD 1201 OAM     TVG Grant Recovery

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0302 - Cooling fan failure

The cooling fan hardware is not working.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0302 * SYSTEM Cooling fan failure
```

Alarm Level: Minor

Recovery

1. At the fan assembly, verify that the Fan Switch on the grill panel is in the ON position.

2. At the FAP, verify the fuses for the fan assembly. The fuse card will be marked FAN A and FAN B, fuse positions 6, 12, and 18 (A and B).
 - Fuse position 6 is for the fan unit directly below the control shelf.
 - Fuse position 12 is for the fan directly below the 1200 shelf.
 - Fuse position 18 is for the fan directly below the 1300 shelf.
 - Fans (P/N 890-1038-xx) are to be fused at 2 amps (with orange flags) per feed.
 - Fans (P/N 890-0001-xx) are to be fused at 3 amps (with blue flags) per feed.
 - Ensure the FAP fuse location for the fan is properly labeled.

3. At the EAGLE 5 ISS terminal, enter the following command to verify that the fan feature is turned on.

```
rtrv-feat
```

NOTE: Once you have turned on the feature, you cannot turn it off. The feature applies to any and all fans installed within the system. When replacing a fan assembly, the feature should already be turned on.

The output displays a list of optional features and their status on the system:

```

RLGHNCXA03W 99-01-28 11:34:04 EST EAGLE 35.0.0
EAGLE FEATURE LIST
GTT = off
GWS = on
CRMD = off
X25G = on
LAN = on
SEAS = on
LNP = off
LNP12MIL = off
FAN = on
DSTN4000 = on
WNP = on
CNCF = on
SCCPCNV = on
TCAPCNV = on
TLNP = on
x252000 = on

```

-
4. If **FAN = on** does not appear in the output, enable the fan feature by entering the following command:

chg-feat : fan=on

After the program updates, the system returns output similar to the following:

```

RLGHNCXA03W 97-03-11 11:34:04 EST EAGLE 35.0.0
CHG-FEAT: MASP A - COMPLD

```

-
5. At the rear of the frame, verify the A power cable from the A fan assembly is securely attached.
-
6. At the rear of the frame, verify the B power cable from the B fan assembly is securely attached.
-
7. At the EAGLE 5 ISS terminal, type in this command:

rept-stat-trbl

If the EAGLE 5 ISS reports the following alarm, replace the cooling fan.

```
302 COOLING FAN FAILURE
```

See Appendix A, *Card Removal/Replacement Procedures*.

0303 - Cooling fan normal

The cooling fan hardware has returned to service.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0303 SYSTEM Cooling fan normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0304 - REPT-NMTSK-DSCD: SNM Discard Onset

This message indicates that the number of system network messages has exceeded the threshold and messages are being discarded.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
* 0100.0304 * CARD 1113 OAM REPT-NMTSK-DSCD: SNM Discard Onset
```

Alarm Level: Minor

Recovery

Check for problems in the network that would cause excessive network management messages to be broadcast.

0305 - RECVY-NMTSK-DSCD: SNM Discard Abated

This message indicates that network messages are no longer being discarded.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0305 CARD 1113 OAM REPT-NMTSK-DSCD: SNM Discard Abated
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous condition has been corrected. No further action is necessary.

0306 - SNM Overload Onset

This message indicates that network management messages are approaching the threshold where they will be discarded.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0306 * CARD 1113 OAM SNM Overload Onset
```

Alarm Level: Minor.

Recovery

Check for problems in the network that would cause excessive network management messages to be broadcast.

0307 - SNM Overload Abated

This message indicates that the threat of network messages being discarded no longer exists.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0307 CARD 1113 OAM SNM Overload Abated
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous condition has been corrected. No further action is necessary.

0308 - Node isolated due to SLK failures

The EAGLE 5 ISS is isolated from other signaling points. All system links are down. Possible causes are as follows:

- Primary and secondary clock sources have failed
- Signaling links have been manually cancelled
- All cards have been manually inhibited
- Both IMT busses have failed

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0308 *C SYSTEM Node isolated due to SLK failures
```

Alarm Level: Critical

Recovery

1. Contact the *Customer Care Center*, see page 1-12.
-

2. Restore the signaling links to service by entering the following:

act-slk:loc=xx:port=x

The following message should appear:

```
RLGHNCXA03W 00-02-07 11:11:28 EST EAGLE 35.0.0
Activate SLK message sent to card
```

3. Enter the following to restore the cards

rst-card:loc=xxxx

NOTE: The card locations (xxxx) must be specified and the command repeated for each card.

Automatic recovery of the SLKs should occur.

4. Activate measurements using the **chg-meas:collect=on** command. This starts measurements collection.

NOTE: See Chapter 4, "Measurements," for traffic measurements information.

0309 - Node is no longer isolated

This message occurs when the node has been in node isolation due to signaling link failures. Enough links have recovered so that the node is no longer isolated and signaling can occur.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0309     SYSTEM                Node is no longer isolated
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0311 - DPC is allowed

A previous fault is corrected and the EAGLE 5 ISS system can send traffic to a specified point code.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0311    DPC 144-201-001      DPC is allowed
                LSN=nc00027
                Prohibited SS  1, 5, 18
                Allowed SS      3, 6
                Blocked SS      100, 103
                Unblocked SS    2, 102, 221
```

Corrective Maintenance

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0312 - DPC is restricted

A transfer-restricted message has been received concerning the DPC. Possible causes:

- One or more routes to this DPC are unavailable.
- A low priority route is carrying the traffic. The primary and combined routes are not available for traffic to the given DPC.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0312 * DPC 144-201-001 DPC is restricted
LSN=nc00027
Prohibited SS 1, 5, 18
Allowed SS 3, 6
Blocked SS 100, 103
Unblocked SS 2, 102, 221
```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: Minor

Recovery

1. Enter the **rept-stat-rte** command using the DPC specified from the output message to determine which linkset has a problem.

2. Enter the **rept-stat-ls** using the linkset name specified from the output of step 1 to determine which link(s) could have a problem.

3. Use local procedures to test the link facilities.

0313 - DPC is prohibited

Traffic to the DPC is prohibited. Possible causes:

- All routes to this DPC are unavailable.
- Adjacent point code link failures or nonadjacent failure in the route.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0313 *C DPC 144-201-001      DPC is prohibited
      LSN=nc00027
      Prohibited SS  1, 5, 18
      Allowed SS     3, 6
      Blocked SS     100, 103
      Unblocked SS   2, 102, 221

```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: Critical

Recovery

1. Enter the **rept-stat-rte** command using the DPC specified from the output message to determine which linkset has a problem.
 2. Enter the **rept-stat-ls** using the linkset name specified from the output of step 1 to determine which link(s) could have a problem.
 3. Use local procedures to test the link facilities.
-

0314 - Route is allowed

The primary route to the DPC can carry traffic.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0314 DPC 144-201-001 Route is allowed
LSN=nc00027
Prohibited SS 1, 5, 18
Allowed SS 3, 6
Blocked SS 100, 103
Unblocked SS 2, 102, 221
```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0315 - Route is restricted

Traffic in the primary route to the DPC is restricted. This could indicate signaling link failures for a nonadjacent DPC.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0315    DPC 144-201-001    Route is restricted
              LSN=nc00027
              Prohibited SS  1, 5, 18
              Allowed SS     3, 6
              Blocked SS     100, 103
              Unblocked SS   2, 102, 221

```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the far-end to test and correct the problem.

0316 - Route is prohibited

The primary route to the DPC cannot carry traffic to the DPC. Following are the possible causes:

- Local SLK failures
- Nonadjacent DPC SLK failures

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0316    DPC 144-201-001    Route is prohibited
              LSN=nc00027

```

Corrective Maintenance

```
Prohibited SS  1, 5, 18
Allowed SS     3, 6
Blocked SS    100, 103
Unblocked SS  2, 102, 221
```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the **rept-stat-rte** command using the DPC specified from the output message to determine which linkset has a problem. If it specifies a nonadjacent linkset, contact the far-end to test and correct the problem.
2. If it appears to be a local signaling link failure enter the **rept-stat-ls** using the linkset name specified from the output of step 1 to determine which link(s) could have a problem.
3. Verify the link status using the **rept-stat-slk** command. For example, enter:

```
rept-stat-slk:loc=:port=b
```

Following is an example of the output:

```
RLGHNCXA03W 00-09-27 17:00:36 EST EAGLE 35.0.0
SLK      LSN          CLLI          PST          SST          AST
1203,B  nsp1         ls02clli     OOS-MT       Unavail      ----
  ALARM STATUS      = No alarm
  UNAVAIL REASON    = FL NA LI RI
Command Completed.
```

4. Check the *UNAVAIL REASON* field in the output of the **rept-stat-slk** command. Following is an explanation of the *UNAVAIL REASON* codes:

FL – The signaling link has a fault.

NA – The signaling link is not aligned.

LI – The signaling link has been inhibited locally

RI – The signaling link has been inhibited remotely.

LB – The signaling link has been blocked locally.

RB – The signaling link has been blocked remotely.

FC – The signaling link is unavailable because of false congestion.

RD(xx.xxx) - The signaling link is unavailable because of a restart delay to prevent signaling link oscillation. The number in parentheses indicates the amount of time, in seconds, remaining in the restart delay period. The link is restarted automatically after this amount of time has elapsed.

-
5. If the *UNAVAIL REASON* indicates an alignment problem or fault, activate a loopback using the **act-lpb** command, or use a physical loopback. (For a V.35, you must use an appropriate physical V.35 loopback.) If the signaling link aligns, contact the far-end to correct the problem.
-
6. If the *UNAVAIL REASON* still indicates an alignment problem or fault, check the status of the card by entering the **rept-stat-card** command for the specified card.
-
7. If the **rept-stat-card** command indicates a problem with the card, reset the card by entering the **init-card** command with the specified card location. If the card still does not align, try first reseating the card, then replacing the card.

See Appendix A, *Card Removal/Replacement Procedures*.
-
8. If the *UNAVAIL REASON* indicates a locally inhibited link, enter the **unhb-slk** command with the specified card location.
-
9. If the *UNAVAIL REASON* indicates a locally blocked link, enter the **ublk-slk** command with the specified card location.
-
10. If the signaling is blocked or inhibited remotely, contact the far-end to place the link in-service.
-

0317 - RCVRY-LKSTO: Link set allowed

The linkset is returned to service.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
```

Corrective Maintenance

0014.0317 LSN a24546 RCVRY-LKSTO: Link set allowed

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault is corrected. No further action is necessary.

0318 - REPT-LKSTO: Link set prohibited

This message indicates a linkset is out of service.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0318 ** LSN a54646 REPT-LKSTO: Link set prohibited
```

Alarm Level: Major

Recovery

1. Verify the link status using the **rept-stat-slk** command. For example, enter:

```
rept-stat-slk:loc=1203:port=b
```

Following is an example of the output:

```
RLGHNCX A03W 00-02-07 12:02:36 EST EAGLE 35.0.0
SLK      LSN          CLLI          PST          SST          AST
1203,B  nsp1         ls02c1li     OOS-MT       Unavail      ----
        ALARM STATUS   = No alarm
        UNAVAIL REASON = FL NA LI RI
Command Completed.
```

2. Check the *UNAVAIL REASON* field in the output of the **rept-stat-slk** command. Following is an explanation of the *UNAVAIL REASON* codes:

FL – The signaling link has a fault.

NA – The signaling link is not aligned.

LI – The signaling link has been inhibited locally

RI – The signaling link has been inhibited remotely.

LB – The signaling link has been blocked locally.

RB – The signaling link has been blocked remotely.

FC – The signaling link is unavailable because of false congestion.

RD(xx.xxx) – The signaling link is unavailable because of a restart delay to prevent signaling link oscillation. The number in parentheses indicates the amount of time, in seconds, remaining in the restart delay period. The link is restarted automatically after this amount of time has elapsed.

-
3. If the *UNAVAIL REASON* indicates an alignment problem or fault, activate a loopback using the **act-lpb** command, or use a physical loopback. (For a V.35, you must use an appropriate physical V.35 loopback.) If the signaling link aligns, contact the far-end to correct the problem.
-

4. If the *UNAVAIL REASON* still indicates an alignment problem or fault, check the status of the card by entering the **rept-stat-card** command for the specified card.
-

5. If the **rept-stat-card** command indicates a problem with the card, reset the card by entering the **init-card** command with the specified card location. If the card still does not align, try first reseating the card, then replacing the card.

See Appendix A, *Card Removal/Replacement Procedures*.

6. If the *UNAVAIL REASON* indicates a locally inhibited link, enter the **unhb-slk** command with the specified card location.
-

7. If the *UNAVAIL REASON* indicates a locally blocked link, enter the **ublk-slk** command with the specified card location.
-

8. If the signaling is blocked or inhibited remotely, contact the far-end to place the link in-service.
-

0319 - REPT-MTPLP-DET: Circ rte det(cong)

The system automatically tests for circular routing when congestion occurs on an ANSI signaling link. If the routing data was provisioned incorrectly, or was corrupted, MSUs could be routed in an endless circular route. The incorrect routing data could be on the system or at a remote STP. This message indicates that circular routing has been detected.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0319 *C DPC 011-210-* REPT-MTPLP-DET: Circ rte det(cong)
      XMT LSN=ls01 RC=10
      RCV LSN=ls14
      MEMBER=011-210-007
```

Alarm Level: Critical

Recovery

1. Enter the following command to check the routing information for the specified DPC:

```
rtrv-rte
```

If the problem is in the routing table of an adjacent node, contact the node (identified in the **rtrv-rte** command output) to resolve the circular routing problem. If the routing information is correct, continue with Step 4. If there is an error in the routing information, continue with Step 2

2. Enter the following command to delete the route in the error message from the database:

```
dlt-rte:aaaa=xxx-xxx-xxx:lsn=yyyy
```

where *aaa* = *dpc*, *dpca*, *dpci*, or *dpcn*
xxx-xxx-xxx = destination point code
and *yyyy* = the linkset name associated with the route.

3. Refer to the *Database Administration Manual - SS7*, Chapter 5 - SS7 Configuration and the procedure titled Adding a Route for the procedure on entering the correct route information.
-

4. Enter the following command to reset the destination circular routing status:

```
rst-dstn:dpc=x-x-x
```

where *x-x-x* = the destination point code of the destination.

0320 - REPT-MTPLP-SUST: Sustained circ rt(cong)

The system automatically tests for circular routing when congestion occurs on an ANSI signaling link. If the routing data was provisioned incorrectly, or was corrupted, MSUs could be routed in an endless circular route. The incorrect routing data could be on the system or at a remote STP. This message indicates that circular routing has been detected.

Example

```

RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0320 *C DPC 011-210-* REPT-MTPLP-SUST: Sustained circ rt(cong)
      XMT LSN=1s01 RC=10
      RCV LSN=1s14
      MEMBER=011-210-007

```

Alarm Level: Critical

Recovery

1. Enter the following command to check the routing information for the specified DPC:

```
rtrv-rte
```

If the problem is in the routing table of an adjacent node, contact the node (identified in the **rtrv-rte** command output) to resolve the circular routing problem. If the routing information is correct, continue with Step 4. If there is an error in the routing information, continue with Step 2

2. Enter the following command to delete the route in the error message from the database:

```
dlt-rte:aaa=xxx-xxx-xxx:lsn=yyyy
```

where *aaa* = *dpc*, *dpca*, *dpci*, or *dpcn*
xxx-xxx-xxx = destination point code
and *yyyy* = the linkset name associated with the route.

3. Refer to the *Database Administration Manual - SS7*, Chapter 5 - SS7 Configuration and the procedure titled Adding a Route for the procedure on entering the correct route information.

4. Enter the following command to reset the destination circular routing status:

```
rst-dstn:dpc=x-x-x
```


where $x-x-x$ = the destination point code of the destination.

0321 - X-LIST occupancy threshold exceeded

This message indicates that the number of x-list entries has exceeded a specified threshold.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0321 * XLIST X-LIST occupancy threshold exceeded
```

Alarm Level: Minor

Recovery

1. To display the system-wide parameters for cluster routing, enter the **rtrv-stpopts** command. Following is an example of the output:

```
RLGHNCXA03W 00-07-23 16:02:34 EST EAGLE. 31.3.0 STP OPTIONS
-----
MTP31CTL          1
MTP31CTL          yes
MTP31CTL          3
MTP31CTL          10000
MTP31CTL          500
MTP31CTL          0100
MTP31CTL          90%
MTP31CTL          2000
MTP31CTL          1000
MTP31CTL          yes
MTP31CTL          5000
```

The **mtpxlq** parameter is the total number of dynamic status exception list (x-list) entries the EAGLE 5 ISS maintains. There are 2500 total table entries. The default values allow for 2000 entries for provisioned destinations and 500 for x-list entries. (If you increase the number of x-list entries, you must decrease the number of DPCs that can be provisioned by changing the **mtpdpcq** parameter.)

The **mtpxlet** parameter is the maximum amount of time the EAGLE 5 ISS maintains an unreferenced x-list entry.

The **mtpxlot** parameter is the threshold that this message refers to.

2. Use the **chg-stpopts** to change the number of x-list entries, the x-list expiration timer, or to raise the threshold for notification of a full x-list.
-
3. If the problem persists, use the **dact-rstst** command to eliminate specific x-list entries.
-

0322 - X-LIST occupancy below threshold

This message indicates that the number of x-list entries has fallen below a specified threshold.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0322    XLIST                X-LIST occupancy below threshold
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0324 - DPC subsystem is allowed

All subsystems at the indicated DPC are reachable.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0324    DPC 144-201-001      DPC subsystem is allowed
LSN=nc00027
Prohibited SS  1, 5, 18
Allowed SS     3, 6
Blocked SS     100, 103
Unblocked SS   2, 102, 221
```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

Corrective Maintenance

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0325 - DPC subsystem is blocked

The DPC subsystem is blocked due to administrative action.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0325 *C DPC 144-201-001      DPC subsystem is blocked
      LSN=nc00027
      Prohibited SS  1, 5, 18
      Allowed SS     3, 6
      Blocked SS     100, 103
      Unblocked SS   2, 102, 221
```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: Critical

Recovery

Contact the far-end to correct the problem.

0326 - DPC subsystem is prohibited

The indicated DPC Subsystem is prohibited.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0326 *C DPC 144-201-001      DPC subsystem is prohibited
      LSN=nc00027
      Prohibited SS  1, 5, 18
      Allowed SS    3, 6
      Blocked SS    100, 103
      Unblocked SS  2, 102, 221

```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: Critical

Recovery

Contact the far-end to correct the problem.

0327 - DPC subsystem has been deleted

This indicates a DPC subsystem has been deleted from the system global title translation (GTT) tables.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0327 DPC 144-201-001 DPC subsystem has been deleted
LSN=nc00027
Prohibited SS 1, 5, 18
Allowed SS 3, 6
Blocked SS 100, 103
Unblocked SS 2, 102, 221
```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected by deletion of the entity. No further action is necessary.

0328 - SCCP is available

The SCCP subsystem has returned to service.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0328 SCCP SYSTEM SCCP is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0329 - SCCP capacity normal, card(s) abnormal

The SCCP subsystem is operating normally, using the TVG (Group Ticket Voucher load balancing algorithm) message transport method. The TPS (Transactions Per Second) rate is below its capacity threshold, as defined by the **chg-th-alm** command.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0329     SCCP SYSTEM          SCCP capacity normal, card(s) abnormal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This alarm is used in conjunction with alarm #0330 "System SCCP TPS Threshold Exceeded." For every five minutes the Eagle is above the threshold, the ATH (Application Trouble Handler) reports the minimum, maximum and average TPS value seen during the past five minute period. When the TPS level drops below the threshold level for 30 seconds, the alarm stops, and alarm #0329 confirms that normal operation has resumed. (Alternatively, the user can clear this alarm by raising the threshold limit to a value greater than the maximum value, in which case, the alarm stops immediately.
2. To obtain details, use the **rept-stat-sccp** command, which displays the status of the SCCP and VSCCP cards and other services and determines the capacity threshold of the SCCP TPS rate. This command also identifies which DSM cards are OOS-MT. For example, enter:

```
rept-stat-sccp
```

Following is an example of the output:

Corrective Maintenance

```
eaglestp 00-10-24 20:38:58 EST EAGLE 35.0.0
SCCP SUBSYSTEM REPORT IS-NR          Active      -----
SCCP Cards Configured= 1  Cards IS-NR= 1  Capacity Threshold = 80%

CARD   VERSION   PST      SST      AST      MSU USAGE  CPU USAGE
-----
1212   021-001-000 IS-NR     ACTIVE   ALMINH     47%       32%
-----
SCCP Service Average MSU Capacity = 47%      Average CPU Capacity = 32%

Command Completed.
```

0330 - System SCCP TPS Threshold exceeded

This message indicates the Eagle has exceeded its TPS (Transactions Per Second) message transport rate threshold. For every 30 seconds the Eagle is above the threshold, an ATH (Application Trouble Handler) reports the minimum, maximum and average TPS value seen during the past 30-second period.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST  EAGLE 35.0.0
** 0100.0330 ** SCCP SYSTEM      System SCCP TPS Threshold exceeded
```

Alarm Level: Major

Recovery

1. Use **rept-stat-sccp** to determine the status of the SCCP subsystem. This command also identifies which SCCP cards are OOS-MT. For example, enter:

```
rept-stat-sccp
```

Following is an example of the output:

```
eaglestp 00-10-24 20:38:58 EST EAGLE 35.0.0
SCCP SUBSYSTEM REPORT IS-NR          Ovflw-1      -----
SCCP Cards Configured= 4 Cards        IS-NR= 4
System TCP Alarm Threshold = 80% Total capacity
System Peak SCCP Load = 3000 TPS
System Total SCCP Capacity = 5000 TPS
```

CARD	VERSION	PST	SST	AST	MSU USAGE	CPU USAGE
1212	021-001-000	IS-NR	ACTIVE	ALMINH	47%	32%

SCCP Service Average MSU Capacity = 47% Average CPU Capacity = 32%

Command Completed.

Use the command **rept-stat-sccp:mode=perfto** to retrieve the maximum and average values, if desired.

- The user may clear this alarm by raising the threshold limit to a value greater than the maximum value. In this case, the alarm stops immediately.

You should use the **rtrv-th-alm** command to list the threshold rate, and you may use the **chg-th-alm** command to change the threshold value.

- The user should evaluate this new traffic level and determine whether additional SCCP cards are required to maintain the TPS level the system is processing.
- Use the **rept-stat-card** command to display the card status and maintenance activity states. Examine the report for any cards that may be OOS-MT.
- Use the **init-card** command to initialize any cards(s) that are OOS-MT. This causes the card(s) to reload the MTP data as well as GTT data tables.
- Again using the **rept-stat-sccp** command, verify the card(s) have returned to service. If any card(s) have failed to return to IS-NR, reseal the card(s).
- If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0331 - SCCP is not available

The SCCP subsystem is not available to any LIM(s). All TSM/DSM-SCCP cards have failed.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0331 *C SCCP SYSTEM          SCCP is not available
```

Alarm Level: Critical

Recovery

1. Use **rept-stat-sccp** command to determine the status of the SCCP subsystem. This command also identifies which TSM/DSM cards are OOS-MT. For example, enter:

rept-stat-sccp

Following is an example of the output:

```
RLGHNCXA03W 00-02-07 16:10:50 EST EAGLE 35.0.0
SCCP SUBSYSTEM REPORT IS-NR          Active      -----
SCCP Cards Configured= 1  Cards IS-NR= 1  Capacity Threshold = 100%
CARD  VERSION      PST      SST      AST      MSU USAGE  CPU USAGE
-----
1212  021-001-000  IS-NR      Active  ALMINH      47%      32%
-----
SCCP Service Average MSU Capacity = 47%  Average CPU Capacity = 32%
Command Completed
```

2. Reinitialize any card(s) not in an IS-NR state using the **init-card** command.
 3. After the card(s) have been reloaded, use the **rept-stat-sccp** command to verify the SCCP subsystem has returned to full capacity.
 4. If any card(s) fail to return to IS-NR, reseal the card(s).
 5. If the card(s) still do not return to IS-NR, replace the card(s).
See Appendix A, *Card Removal/Replacement Procedures*.
-

0332 - DPC Subsystem is prohibited and blocked

A subsystem is both prohibited and blocked as reported by the network.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0332 *C DPC 144-201-001 DPC Subsystem is prohibited and blocked
LSN=nc00027
Prohibited SS 1, 5, 18
Allowed SS 3, 6
Blocked SS 100, 103
Unblocked SS 2, 102, 221

```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: Critical

Recovery

Contact the far-end to test and correct the problem.

0333 - DPC Subsystem is Normal

The DPC subsystem indicated in the output message is now allowed.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0333 DPC 144-201-001 DPC Subsystem is Normal
LSN=nc00027
Prohibited SS 1, 5, 18
Allowed SS 3, 6
Blocked SS 100, 103
Unblocked SS 2, 102, 221

```

Corrective Maintenance

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0334 - DPC Subsystem is Abnormal

The indicated DPC subsystem is not reachable through the normal route.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0334 *C DPC 144-201-001      DPC Subsystem is Abnormal
      LSN=nc00027
      Prohibited SS  1, 5, 18
      Allowed SS     3, 6
      Blocked SS     100, 103
      Unblocked SS   2, 102, 221
```

Legend

ALLOWED SS. Allowed subsystem

BLOCKED SS. Blocked subsystem

LSN. Linkset name. The name must be unique.

PROHIBITED SS. Prohibited subsystem

UNBLOCKED SS. Unblocked subsystem

Alarm Level: Critical

Recovery

1. Enter the **rept-stat-rte** command using the DPC specified from the output message to determine which linkset has a problem.

2. Enter the **rept-stat-ls** using the linkset name specified from the output of step 1 to determine which link(s) could have a problem.

3. Use local procedures to test the link facilities.

0335 - SCCP is removed

All SCCP cards have been deleted from the database; SCCP services are not available to the system. This message is the result of a deliberate action. Removing all TSM-SCCP cards from the database may have been an action from another maintenance procedure. If you wish to restore SCCP services to the system, perform the following procedure. For more information about adding a card to the system, refer to the *Database Administration Manual - SS7*.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0335     SCCP SYSTEM           SCCP is removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Use the **ent-card** command to reenter the TSM-SCCP cards into the system database.

2. Use the **rst-card** command to return the card(s) to service. This causes the MASP to begin downloading global title translation (GTT) tables to the TSM-SCCP.

3. Use the **rept-stat-sccp** command to verify that the card(s) have been restored, after the MASP has completed loading.

Corrective Maintenance

0336 - LIM(s) have been denied SCCP service

Some LIM(s) are using the SCCP subsystem, but others have been denied service. This is due to underprovisioning, and will require more cards to be added.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0336 ** SCCP SYSTEM          LIM(s) have been denied SCCP service
```

Alarm Level: Major

Recovery

1. Use **rept-stat-sccp** command to determine which LIMs have been denied SCCP service.

For example, enter:

```
rept-stat-sccp
```

Following is an example of the output:

```
RLGHNCXA03W 00-02-07 16:10:50 EST EAGLE 35.0.0
SCCP SUBSYSTEM REPORT IS-NR          Active      -----
SCCP Cards Configured= 1  Cards IS-NR= 1  Capacity Threshold = 100%
CARD  VERSION      PST      SST      AST      MSU USAGE  CPU USAGE
-----
1212  021-001-000  IS-NR      Active  ALMINH      47%      32%
-----
SCCP Service Average MSU Capacity = 47%   Average CPU Capacity = 32%
Command Completed
```

2. Add TSM/DSM-SCCP cards one at a time. Monitor the performance of the SCCP subsystem with the **rept-stat-sccp** command to determine whether additional cards are needed.
-

0337 - DPC - SS status changed

This output is related to other DPC alarm messages. It indicates that one or more subsystems with an existing alarm condition has had a change in status. The message indicates the new status of the subsystem. A previous alarm condition has not cleared.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0337    DPC 001-001-001      DPC-SS status changed
              LSN=A1234567
              Prohibited SS 5, 20

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Follow the troubleshooting procedure for the previous alarm.

0338 - X-LIST space full-entry(s) discarded

This message indicates that the total number of dynamic status exception list (x-list) entries for cluster routing has exceeded the maximum number configured. No more entries can be added to the list. This can occur because the maximum number of x-list entries is set too low, the timer that eliminates x-list entries after a specified period is set too long, or the x-list needs to be culled.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0338 ** XLIST                X-LIST space full-entry(s) discarded

```

Alarm Level: Major

Recovery

1. To display the system-wide parameters for cluster routing, enter the **rtrv-stpopts** command. Following is an example of the output:

```

RLGHNCXA03W 00-07-23 16:02:34 EST EAGLE. 31.3.0 STP OPTIONS
-----
MTPF31CTL                1
MTPLT1                   yes
MTPLTCTDPCQ              3
MTPLTST                  10000
MTPXLQ                   500
MTPXLET                  0100
MTPXLOT                  90%

```

Corrective Maintenance

MTPDPCQ	2000
TFATFRPR	1000
MTPRSI	yes
MTPRSIT	5000

The **mtpxlq** parameter is the total number of dynamic status exception list (x-list) entries the EAGLE 5 ISS maintains. There are 2500 total table entries. The default values allow for 2000 entries for provisioned destinations and 500 for x-list entries. (If you increase the number of x-list entries, you must decrease the number of DPCs that can be provisioned by changing the **mtpdpcq** parameter.)

The **mtpxlet** parameter is the maximum amount of time the EAGLE 5 ISS maintains an unreferenced x-list entry.

2. Use the **chg-stpopts** to change the number of x-list entries or the x-list expiration timer.
-
3. If the problem persists, use the **dact-rstst** command to eliminate specific x-list entries.
-

0339 - X-LIST space full condition abated

This message indicates the total number of dynamic status exception list (x-list) entries no longer exceeds the maximum allowed.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0339 XLIST X-LIST space full condition abated
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0340 - RCVRY-MTPLP-RST: Circ rte status cleared

The system automatically tests for circular routing when congestion occurs on an ANSI signaling link. This message indicates that the circular routing has been cleared.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0340    DPC 001-001-001    RCVRY-MTPLP-RST: Circ rte status cleared
             XMIT LSN=A1234567
             RCV LSN=1s14
             MEMBER=011-210-007

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0341 - OAP Unavailable

This message indicates that the EAGLE 5 ISS system is unable to communicate with the OAP or the OAP has an internal failure.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0341 ** OAP B          OAP Unavailable

```

Alarm Level: Major

Recovery

1. Enter the following command to determine the status of the OAP(s):

rept-stat-seas

Following is an example of the output:

```

RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0

```


Corrective Maintenance

```

                                GPL          PST          SST          AST
-----
SEAS SYSTEM                    IS-ANR      Restricted  -----
TDM TRM                        6          IS-NR      Active      -----
TDM TRM                        9          IS-NR      Active      -----
OAP                            A    220-001-000  IS-NR      Active      -----
OAP                            B    -----      OOS-MT     Isolated   -----
X25 Link                       A1         IS-NR      Active      -----
X25 Link                       B1         OS-MT      Fault       -----

SEAS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A       ALARM STATUS = No Alarms.
OAP B       ALARM STATUS = ** 0341 OAP unavailable
X25         ALARM STATUS = No Alarms.
X25         ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

X25 A1 PVCs IS-NR    = 1,2,3
X25 A1 PVCs OOS-MT  = ---

X25 B1 PVCs IS-NR    = ---
X25 B1 PVCs OOS-MT  = 1,2,3
Command Completed.

```

Refer to the *Commands Manual* to interpret the output.

NOTE: If the OAP has an internal failure, yet it can still communicate with the system, the state for the OAP appears in the output as OOS-MT/Fault instead of OOS-MT/Isolated. For instance, if the OAP has a hard disk failure the state would appear as OOS-MT/Fault. If the hard disk is full, it will not communicate.

2. If the OAP has a hard disk failure or the hard disk is full, contact the *Customer Care Center*, see page 1-12.
-
3. If the OAP(s) are out-of-service, check the physical connections. See the *Installation Manual* for more information about these system components.
-
4. Check for any fuse alarms on the Fuse and Alarm Panel in the OAP frame. There are two 7.5 amp fuses for each OAP. The fuses for OAP1 are marked "Fuse 1A" and "Fuse 1B". The fuses for OAP2 are marked "Fuse 2A" and "Fuse 2B". If there is a fuse alarm, replace the fuses for the OAP that is unavailable. Also, make sure the two 10 amp breakers are not tripped.
-
5. Enter the following command to verify that the SEAS ports are functioning:

rept-stat-trm

Following is an example of the output:

```

RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
TRM  PST          SST          AST
1    IS-NR        Active      -----
2    IS-NR        Active      -----
3    IS-NR        Active      -----
4    OOS-MT-DSBLD  MANUAL     -----

```

```

5      IS-NR          Active      -----
6      IS-NR          Active      -----
7      IS-NR          Active      -----
8      IS-NR          Active      -----
9      IS-NR          Active      -----
10     IS-NR          Active      -----
11     IS-NR          Active      -----
12     IS-NR          Active      -----
13     OOS-MT-DSBLD   MANUAL      -----
14     OOS-MT-DSBLD   MANUAL      -----
15     OOS-MT-DSBLD   MANUAL      -----
16     OOS-MT-DSBLD   MANUAL      -----
Command Completed.

```

Use the output from Step 1 (TRM) to identify the OAP ports. Refer to the *Commands Manual* to interpret the output.

6. If a SEAS port is OOS-MT-DSBLD, enable the port with the following command:

```
rst-trm:trm=x
```

where *x* is the OAP port number.

If this action corrects the problem, you are done with this procedure.

7. If the problem persists, verify that the OAP cables are connected to the correct SEAS TDM port(s).
-

8. If the problem persists, verify that the OAP cables are connected to the correct OAP serial ports.
-

9. Verify the RS-232 parameters are configured properly for the SEAS port by entering the **rtrv-trm** command for the specified port. The port should be configured to 19200 baud, even parity, one stop bit, and hardware flow control.
-

10. If the problem still persists, reset the OAP by entering the **init-oap** command. The OAP comes back in-service within five minutes and the system clears the alarm.
-

11. If the problem is still not corrected, reseal the TDM card. If the OAP still does not respond, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

12. If the OAP is still not available, contact the *Customer Care Center*, see page 1-12
-

Corrective Maintenance

0342 - SEAS UAL unavailable

This message indicates the SEAS User Application Layer (UAL) process on the OAP is not running. Layer 4 (UPL) is not available for the specified OAP.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0342 ** SEAS OAP B SEAS UAL unavailable
```

Alarm Level: Major

Recovery

1. The UAL should recover automatically by restarting.
2. Enter the following command to verify the status of the OAP(s):

rept-stat-seas

Following is an example of the output:

```
RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL      PST      SST      AST
-----
SEAS SYSTEM                    IS-ANR    Restricted  -----
TDM TRM          6              IS-NR     Active     -----
TDM TRM          9              IS-NR     Active     -----
OAP              A    220-001-000 IS-NR     Active     -----
OAP              B    -----    OOS-MT    Isolated  -----
X25 Link         A1              IS-NR     Active     -----
X25 Link         B1              OS-MT     Fault      -----

SEAS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0342 SEAS UAL unavailable
X25          ALARM STATUS = No Alarms.
X25          ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

X25 A1 PVCs IS-NR   = 1,2,3
X25 A1 PVCs OOS-MT = ---

X25 B1 PVCs IS-NR   = ---
X25 B1 PVCs OOS-MT = 1,2,3
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

3. If the UAL does not recover, contact the SEAC to test from their equipment to the local synchronous modem. Make sure the X.25 link is activated at their end and the link tests within specifications. If possible, have the SEAC or PDN swap X.25 cards at their end with a known good card.
-
4. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0343 - SEAS X.25 Link unavailable

This message indicates the X.25 link to the specified OAP is down. Layer 2 is not available for the indicated SEAS X.25 link.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0343 ** X25 Link A1 SEAS X.25 Link unavailable
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the status of the SEAS subsystem:

rept-stat-seas

Following is an example of the output:

```
RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL          PST          SST          AST
-----
SEAS SYSTEM                    IS-ANR      Restricted  -----
TDM TRM                        6          IS-NR      Active     -----
TDM TRM                        9          IS-NR      Active     -----
OAP A      220-001-000         IS-NR      Active     -----
OAP B      -----           OOS-MT     Isolated   -----
X25 Link   A1                 IS-NR      Active     -----
X25 Link   B1                 OS-MT      Fault      -----

SEAS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A       ALARM STATUS = No Alarms.
OAP B       ALARM STATUS = ** 0341 OAP unavailable
X25         ALARM STATUS = No Alarms.
X25         ALARM STATUS = ** 0343 SEAS X.25 Link unavailable

X25 A1 PVCs IS-NR   = 1,2,3
X25 A1 PVCs OOS-MT = ---

X25 B1 PVCs IS-NR   = ---
X25 B1 PVCs OOS-MT = 1,2,3
```

Corrective Maintenance

Command Completed.

Refer to the *Commands Manual* to interpret the output.

2. Check the connections from the synchronous modem (in the OAP frame) to the OAP. See the *Installation Manual* for more information about these system components. If the connections are firmly seated, test and if necessary, replace the modem.
-

3. Determine the status of the X.25 link by entering the following command:

rept-stat-seas

where x is the appropriate TRM number from Step 1.

Following is an example of the output:

```
RLGHNCXA03W 00-01-04 15:59:06 EST EAGLE 35.0.0
SEAS COMPONENT          PST          SST          AST
-----
SEAS Interface          IS_ANR       Restricted  -----
TRM                     = 2          IS-NR       Active     -----
OAP                     = A          IS-NR       Active     -----
X25 port                = A1         IS-NR       Active     ALMINH

PVCs IS-NR              = 1, 3
PVCs OOS-MT             = 2
OAP GPL                 = 022-003-000
ALARM STATUS            = * 0344 PVC unavailable.
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

4. If the problem persists, contact the SEAC to test from their equipment to the local synchronous modem. Make sure the X.25 link is activated at their end and the link tests within specifications. If possible, have the SEAC or PDN swap X.25 cards at their end with a known good card.
-

5. If the problem still persists, reset the OAP by entering the **init-oap** command. The OAP comes back in-service within three minutes and the system clears the alarm.
-

6. Determine the status of the X.25 link by entering the following command:

rept-stat-seas

where x is the appropriate TRM number from Step 1.

7. If the X.25 link is still unavailable, contact the *Customer Care Center*, see page 1-12.
-

0344 - SEAS PVC unavailable

This message indicates that the permanent virtual circuit (PVC) connected to the OAP is not available.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0344 * SEAS X25 Link A1 SEAS PVC unavailable
```

Alarm Level: Minor

Recovery

1. Enter the following command to determine the status of the SEAS subsystem:

```
rept-stat-seas
```

Following is an example of the output:

```
RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL      PST      SST      AST
-----
SEAS SYSTEM                    IS-ANR    Restricted  -----
TDM TRM          6             IS-NR     Active     -----
TDM TRM          9             IS-NR     Active     -----
OAP              A    220-001-000 IS-NR     Active     -----
OAP              B    -----    OOS-MT    Isolated   -----
X25 Link         A1             IS-NR     Active     -----
X25 Link         B1             OS-MT     Fault      -----

SEAS SYSTEM  ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0341 OAP unavailable
X25          ALARM STATUS = No Alarms.
X25          ALARM STATUS = * 0344 SEAS PVC unavailable

X25 A1 PVCs IS-NR   = 1,2,3
X25 A1 PVCs OOS-MT = ---

X25 B1 PVCs IS-NR   = ---
X25 B1 PVCs OOS-MT = 1,2,3
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

2. Determine the status of the OAP and PVC by entering the following command:

```
rept-stat-seas
```

Following is an example of the output:

Corrective Maintenance

```
RLGHNCXA03W 00-01-04 15:59:06 EST EAGLE 35.0.0
SEAS COMPONENT          PST          SST          AST
-----
SEAS Interface          IS_ANR      Restricted  -----
TRM                     = 2         IS-NR      Active     -----
OAP                     = A         IS-NR      Active     -----
X25 port                = A1        IS-NR      Active     ALMINH

PVCs IS-NR              = 1, 3
PVCs OOS-MT             = 2
OAP GPL                 = 022-003-000
ALARM STATUS            = * 0344 PVC unavailable.
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

3. If there are any PVCs, the X.25 link physical layer is good.
4. If the problem persists, contact the SEAC to test from their equipment to the local synchronous modem.
5. If the PVC is still not available, contact the *Customer Care Center*, see page 1-12

0345 - All SEAS UAL sessions unavailable

This message indicates the X.25 User Application Layer (UAL) is not available. If all PVCs for the indicated X.25 link have failed, UAL is no longer available, or all UAL sessions are unavailable.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0345 ** SEAS X25 Link B1 All SEAS UAL sessions unavailable
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the status of the OAP(s):

rept-stat-seas

Following is an example of the output:

```
RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL          PST          SST          AST
-----
```

```

SEAS SYSTEM                IS-ANR    Restricted    -----
TDM TRM                    6         IS-NR       Active       -----
TDM TRM                    9         IS-NR       Active       -----
OAP                        A         220-001-000 IS-NR       Active       -----
OAP                        B         -----    OOS-MT      Isolated     -----
X25 Link                   A1        IS-NR       Active       -----
X25 Link                   B1        OS-MT      Fault        -----

```

```

SEAS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A       ALARM STATUS = No Alarms.
OAP B       ALARM STATUS = ** 0341 OAP unavailable
X25         ALARM STATUS = No Alarms.
X25         ALARM STATUS = ** 0345 All SEAS UAL sessions unavailable

```

```

X25 A1 PVCs IS-NR    = 1,2,3
X25 A1 PVCs OOS-MT  = ---

```

```

X25 B1 PVCs IS-NR    = ---
X25 B1 PVCs OOS-MT  = 1,2,3
Command Completed.

```

-
2. Contact the SEAC to verify the X.25 PVCs are correctly configured and activated. The SEAC should also deactivate and activate the X.25 link.
-
3. If the problem persists, reset the OAP by entering the **init-oap** command. The OAP comes back in-service within three minutes and the system clears the alarm.
-
4. If the problem persists, contact the SEAC to test from their equipment to the local synchronous modem.
-
5. If the X.25 UAL is still not available, contact the *Customer Care Center*, see page 1-12.
-

0346 - SEAS UAL session unavailable

This message indicates that the SEAS X.25 link UAL session on one PVC is not available.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0346 * SEAS X25 Link B1 SEAS UAL session unavailable

```

Alarm Level: Minor

Recovery

1. Enter the following command to determine the status of the OAP(s):

rept-stat-seas

Following is an example of the output:

```

RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL          PST          SST          AST
-----
SEAS SYSTEM                      IS-ANR          Restricted  -----
TDM TRM                          6              IS-NR          Active      -----
TDM TRM                          9              IS-NR          Active      -----
OAP                               A    220-001-000 IS-NR          Active      -----
OAP                               B    -----      OOS-MT         Isolated    -----
X25 Link                         A1             IS-NR          Active      -----
X25 Link                         B1             OS-MT          Fault       -----

SEAS SYSTEM  ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0341 OAP unavailable
X25          ALARM STATUS = No Alarms.
X25          ALARM STATUS = * 0346 SEAS UAL session unavailable

X25 A1 PVCs IS-NR    = 1,2,3
X25 A1 PVCs OOS-MT  = ---

X25 B1 PVCs IS-NR    = ---
X25 B1 PVCs OOS-MT  = 1,2,3
Command Completed.
    
```

Refer to the *Commands Manual* to interpret the output.

2. If the problem persists, contact the SEAC to test from their equipment to the local synchronous modem.
-
3. If the problem still persists, contact the *Customer Care Center*, see page 1-12.
-

0347 - SEAS X.25 Link is available

This message indicates that a previous problem with the X.25 link has been corrected.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0347    SEAS X.25 Link B1          SEAS X.25 Link is available
    
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0348 - SEAS is at min service limit

This message indicates that some part of the SEAS subsystem has failed. When there are two OAPs, this could mean that one OAP has failed, or some part of the path to the SEAC for that OAP has failed. When there is only one OAP with two X.25 links to the SEAC and two connections to the TDM serial ports, either one of the X.25 links has failed, or one of the serial port connections to the TDM has failed. One more failure in either case will cause the SEAS subsystem to fail.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0348 ** SEAS SYSTEM SEAS is at min service limit
    
```

Alarm Level: Major

Recovery

1. Determine the status of the OAP(s) by entering the following command:

rept-stat-seas

Following is an example of the output:

```

RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL      PST      SST      AST
-----
SEAS SYSTEM                    IS-ANR    Restricted  -----
TDM TRM          6              IS-NR     Active     -----
TDM TRM          9              IS-NR     Active     -----
OAP              A    220-001-000 IS-NR     Active     -----
OAP              B    -----    OOS-MT    Isolated  -----
X25 Link         A1              IS-NR     Active     -----
X25 Link         B1              OS-MT     Fault     -----

SEAS SYSTEM  ALARM STATUS = ** 0348 SEAS is at min service limit
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0341 OAP unavailable
X25          ALARM STATUS = No Alarms.
X25          ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

X25 A1 PVCs IS-NR    = 1,2,3
X25 A1 PVCs OOS-MT  = ---
    
```

Corrective Maintenance

```
X25 B1 PVCs IS-NR = ---
X25 B1 PVCs OOS-MT = 1,2,3
```

Refer to the *Commands Manual* to interpret the output.

2. If **0341 OAP unavailable** is displayed, follow recovery procedure 0341 - OAP Unavailable.

3. If **0343 SEAS X. 25 Link unavailable** is displayed, follow recovery procedure 0343 - SEAS X.25 Link unavailable.

4. If **0354 OAP TDM Port unavailable** is displayed, follow recovery procedure 0354 - One OAP terminal unavailable

5. If the OAP(s) are out-of-service check the physical connections. See the for more information about these system components. If the connections are firmly seated, test and if necessary, replace the modem.

6. Check for any fuse alarms on the Fuse and Alarm Panel in the OAP frame. There are two 7.5 amp fuses for each OAP. The fuses for OAP1 are marked "Fuse 1A" and "Fuse 1B". The fuses for OAP2 are marked "Fuse 2A" and "Fuse 2B". If there is a fuse alarm, replace the fuses for the OAP that is unavailable. Also, make sure the two 10 amp breakers are not tripped.

7. Ensure that the other serial port devices are functioning by entering the following command:

rept-stat-trm

Following is an example of the output:

```
RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
TRM  PST          SST          AST
 1   IS-NR        Active        -----
 2   IS-NR        Active        -----
 3   IS-NR        Active        -----
 4   OOS-MT-DSBLD  MANUAL        -----
 5   IS-NR        Active        -----
 6   IS-NR        Active        -----
 7   IS-NR        Active        -----
 8   IS-NR        Active        -----
 9   IS-NR        Active        -----
10   IS-NR        Active        -----
11   IS-NR        Active        -----
12   IS-NR        Active        -----
13   OOS-MT-DSBLD  MANUAL        -----
14   OOS-MT-DSBLD  MANUAL        -----
15   OOS-MT-DSBLD  MANUAL        -----
16   OOS-MT-DSBLD  MANUAL        -----
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

8. Enable the terminal port with the following command:

```
rst-trm:trm=x
```

where *x* is the OAP port number.

If this action corrects the problem, you are done with this procedure.

9. Enter the following command to inhibit the unavailable OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

10. If the problem persists, enter the following command to reset the OAP:

```
init-oap:oap=x
```

where *x* is the OAP to be initialized.

Verify that the OAP comes back in-service within five minutes and the system clears the alarm.

If this clears the alarm, continue with Step 14.

11. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```

where *x* is the port number.

12. If the problem is still not corrected, reseal the TDM card. If the OAP still does not respond, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

13. Enter the following command for each OAP terminal inhibited:

```
chg-trm:trm=x:type=oap
```

where *x* is the port number.

14. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

Corrective Maintenance

where x is the port number.

15. If the problem persists, contact the SEAC to test from their equipment to the local synchronous modem.
-
16. If the problem is still not corrected, contact the *Customer Care Center*, see page 1-12.
-

0349 - SEAS unavailable

This message indicates that the EAGLE 5 ISS system is unable to communicate with the SEAS subsystem.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0349 *C SEAS SYSTEM SEAS unavailable
```

Alarm Level: Critical

Recovery

1. Enter the following command to determine the status of the OAP(s):

rept-stat-seas

Following is an example of the output:

```
RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL      PST      SST      AST
-----
SEAS SYSTEM                    IS-ANR    Restricted  -----
TDM TRM          6              IS-NR     Active     -----
TDM TRM          9              IS-NR     Active     -----
OAP              A    220-001-000 IS-NR     Active     -----
OAP              B    -----    OOS-MT    Isolated  -----
X25 Link        A1              IS-NR     Active     -----
X25 Link        B1              OS-MT     Fault     -----

SEAS SYSTEM  ALARM STATUS = *C 0349 SEAS unavailable
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0341 OAP unavailable
X25         ALARM STATUS = No Alarms.
X25         ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

X25 A1 PVCs IS-NR    = 1,2,3
X25 A1 PVCs OOS-MT  = ---
```

```
X25 B1 PVCs IS-NR = ---
X25 B1 PVCs OOS-MT = 1,2,3
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

2. If the OAP(s) are out-of-service, check the physical connections. See the *Installation Manual* for more information about these system components. If the connections are firmly seated, test and if necessary, replace the modem.

3. If 0341 OAP unavailable is displayed, follow recovery procedure 0341 - OAP Unavailable

4. If 0342 SEAS UAL unavailable is displayed, follow recovery procedure 0342 - SEAS UAL unavailable.

5. If 0343 SEAS X. 25 Link unavailable is displayed, follow recovery procedure 0343 - SEAS X.25 Link unavailable.

6. If 0345 All SEAS UAL sessions unavailable is displayed, follow recovery procedure 0345 - All SEAS UAL sessions unavailable.

7. If 0350 OAP terminals inhibited is displayed, follow recovery procedure 0350 - OAP terminals inhibited.

8. Check for any fuse alarms on the Fuse and Alarm Panel in the OAP frame. There are two 7.5 amp fuses for each OAP. The fuses for OAP1 are marked "Fuse 1A" and "Fuse 1B". The fuses for OAP2 are marked "Fuse 2A" and "Fuse 2B". If there is a fuse alarm, replace the fuses for the OAP that is unavailable. Also, make sure the two 10 amp breakers are not tripped.

9. Enter the following command to verify the status of the other serial port devices:

rept-stat-trm

Following is an example of the output:

```
RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
TRM  PST          SST          AST
1     IS-NR        Active      -----
2     IS-NR        Active      -----
3     IS-NR        Active      -----
4     OOS-MT-DSBLD  MANUAL     -----
5     IS-NR        Active      -----
6     IS-NR        Active      -----
7     IS-NR        Active      -----
8     IS-NR        Active      -----
9     IS-NR        Active      -----
```

Corrective Maintenance

```
10   IS-NR           Active      -----
11   IS-NR           Active      -----
12   IS-NR           Active      -----
13   OOS-MT-DSBLD   MANUAL      -----
14   OOS-MT-DSBLD   MANUAL      -----
15   OOS-MT-DSBLD   MANUAL      -----
16   OOS-MT-DSBLD   MANUAL      -----
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

10. Enable the terminal port with the following command:

```
rst-trm:trm=x
```

where *x* is the serial port number.

If this action corrects the problem, you are done with this procedure.

11. Enter the following command to inhibit the unavailable OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

12. If the problem persists, enter the following command to reset the OAP:

```
init-oap:oap=x
```

where *x* is the OAP to be initialized.

Verify that the OAP comes back in-service within five minutes and the system clears the alarm.

If this clears the alarm, continue with Step 14.

13. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```

where *x* is the port number.

14. If the problem is still not corrected, reseal the TDM card. If the OAP still does not respond, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

15. Enter the following command for each OAP terminal inhibited:

```
chg-trm:trm=x:type=oap
```

where x is the port number.

- Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where x is the port number.

- If the problem persists, contact the SEAC to test from their equipment to the local X.25 equipment.
-

- If the OAP is still not available, contact the *Customer Care Center*, see page 1-12.
-

0350 - OAP terminals inhibited

This message indicates that the OAP terminals are inhibited.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0350 *C SEAS SYSTEM OAP terminals inhibited
```

Alarm Level: Critical

Recovery

- Enter the following command to determine which ports are inhibited:

rept-stat-seas

Following is an example of the output:

```
RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL      PST      SST      AST
-----
SEAS SYSTEM                      IS-ANR    Restricted  -----
TDM TRM          6                IS-NR    Active     -----
TDM TRM          9                IS-NR    Active     -----
OAP              A    220-001-000  IS-NR    Active     -----
OAP              B    -----    OOS-MT    Isolated  -----
X25 Link         A1                IS-NR    Active     -----
X25 Link         B1                OS-MT    Fault     -----

SEAS SYSTEM  ALARM STATUS = *C 0350  OAP terminals inhibited
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0341  OAP unavailable
```


Corrective Maintenance

```
X25          ALARM STATUS = No Alarms.
X25          ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

X25 A1 PVCs IS-NR   = 1,2,3
X25 A1 PVCs OOS-MT = ---

X25 B1 PVCs IS-NR   = ---
X25 B1 PVCs OOS-MT = 1,2,3
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

2. Enter the following command to verify that the other serial port devices are functioning:

```
rept-stat-trm
```

Following is an example of the output:

```
RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
  TRM  PST          SST          AST
  1    IS-NR        Active        -----
  2    IS-NR        Active        -----
  3    IS-NR        Active        ALMINH
  4    IS-NR        Active        -----
  5    OOS-MT-DSBLD Manual        -----
  6    IS-NR        Active        -----
  7    IS-NR        Active        -----
  8    IS-NR        Active        -----
  9    IS-NR        Active        -----
 10    IS-NR        Active        -----
 11    IS-NR        Active        ALMINH
 12    IS-NR        Active        -----
 13    IS-NR        Active        -----
 14    IS-NR        Active        -----
 15    IS-NR        Active        -----
 16    IS-NR        Active        -----
Command Completed
```

Refer to the *Commands Manual* to interpret the output.

3. If only the SEAS port(s) are not functioning, enable the SEAS port(s) with the following command:

```
rst-trm:trm=x
```

where *x* is the OAP port number.

If this action corrects the problem, you are done with this procedure.

4. Enter the following command to inhibit the unavailable OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

5. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```

where x is the port number.

6. If the problem is still not corrected, reseal the TDM card. If the problem persists, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

7. Enter the following command for each OAP terminal inhibited:

```
chg-trm:trm=x:type=oap
```

where x is the port number.

8. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where x is the port number.

0351 - SEAS is available

This message indicates that a problem with SEAS system has been corrected.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0351 SEAS SYSTEM SEAS is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

Corrective Maintenance

0352 - SEAS is removed

This message indicates that the SEAS feature has been manually removed by removing both SEAS TDM ports.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0352 SEAS SYSTEM SEAS is removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0353 - OAP is available

This indicates a previous problem with the OAP has been corrected.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0353 OAP A OAP is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0354 - One OAP terminal unavailable

This message indicates that the OAP terminal specified in the output message is not available.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0354 ** OAP B One OAP terminal unavailable

```

Alarm Level: Major**Recovery**

1. Enter the following command to determine which port is unavailable:

```
rept-stat-seas
```

Following is an example of the output:

```

RLGHNCXA03W 00-04-17 14:59:11 EST EAGLE 35.0.0
                                GPL      PST      SST      AST
-----
SEAS SYSTEM                      IS-ANR      Restricted  -----
TDM TRM          6                IS-NR      Active      -----
TDM TRM          9                IS-NR      Active      -----
OAP              A      220-001-000  IS-NR      Active      -----
OAP              B      -----    OOS-MT      Isolated   -----
X25 Link         A1                IS-NR      Active      -----
X25 Link         B1                OS-MT      Fault       -----

SEAS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0354 One OAP terminal unavailable
X25          ALARM STATUS = No Alarms.
X25          ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

X25 A1 PVCs IS-NR   = 1,2,3
X25 A1 PVCs OOS-MT = ---

X25 B1 PVCs IS-NR   = ---
X25 B1 PVCs OOS-MT = 1,2,3
Command Completed.

```

Refer to the *Commands Manual* to interpret the output.

2. Enter the following command to verify that the other ports are functioning:

```
rept-stat-trm
```

Following is an example of the output:

```

RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
TRM  PST      SST      AST
1    IS-NR     Active  -----
2    IS-NR     Active  -----
3    IS-NR     Active  -----
4    OOS-MT-DSBLD  MANUAL  -----
5    IS-NR     Active  -----

```

Corrective Maintenance

```
6      IS-NR          Active      -----
7      IS-NR          Active      -----
8      IS-NR          Active      -----
9      IS-NR          Active      -----
10     IS-NR          Active      -----
11     IS-NR          Active      -----
12     IS-NR          Active      -----
13     OOS-MT-DSBLD  MANUAL      -----
14     OOS-MT-DSBLD  MANUAL      -----
15     OOS-MT-DSBLD  MANUAL      -----
16     OOS-MT-DSBLD  MANUAL      -----
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

3. Enable the terminal port with the following command:

```
rst-trm:trm=x
```

where *x* is the serial port number.

If this action corrects the problem, you are done with this procedure.

4. Check the physical connections between the OAP and the system. Make sure the connectors are firmly seated.

If this action corrects the problem, you are done with this procedure.

5. Enter the following command to inhibit the unavailable OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

6. If the problem persists, enter the following command to reset the OAP:

```
init-oap:oap=x
```

where *x* is the OAP to be initialized.

Verify that the OAP comes back in-service within five minutes and the system clears the alarm.

If this clears the alarm, continue with Step 10.

7. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```

where *x* is the port number.

8. If the problem is still not corrected, reseal the TDM card. If the OAP still does not respond, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

9. Enter the following command for each OAP terminal inhibited:

```
chg-trm:trm=x:type=oap
```

where *x* is the port number.

10. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where *x* is the port number.

11. If the problem is still not corrected, contact the *Customer Care Center*, see page 1-12.
-

0355 - LSMS is available

All communication paths are complete to the LSMS.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0355 LSMS SYSTEM LSMS is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault is corrected. No further action is necessary.

0356 - LSMS is unavailable

There are no communication paths available to the LSMS. This condition is reached when all OAP terminals are manually inhibited or all LSMS associations are down.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0356 *C LSMS SYSTEM LSMS is unavailable
```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status of the terminals:

```
rept-stat-trm
```

Following is an example of the output:

```
RLGHNCXA03W 00-02-07 09:50:17 EST EAGLE 35.0.0
TRM  PST          SST          AST
 1   IS-NR        Active        -----
 2   IS-NR        Active        -----
 3   IS-NR        Active        -----
 4   OOS-MT-DSBLD  MANUAL        -----
 5   IS-NR        Active        -----
 6   IS-NR        Active        -----
 7   IS-NR        Active        -----
 8   IS-NR        Active        -----
 9   IS-NR        Active        -----
10   IS-NR        Active        -----
11   IS-NR        Active        -----
12   IS-NR        Active        -----
13   OOS-MT-DSBLD  MANUAL        -----
14   OOS-MT-DSBLD  MANUAL        -----
15   OOS-MT-DSBLD  MANUAL        -----
16   OOS-MT-DSBLD  MANUAL        -----
Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

2. Enable the terminal port with the following command:

```
alw-trm:trm=x
```

where *x* is the serial port number.

If this action corrects the problem, you are done with this procedure.

3. Check the physical connections between the OAP and the LSMS. Make sure the connectors are firmly seated.

 4. Check the physical connections between the OAP and the system. Make sure the connectors are firmly seated.
-

5. Enter the following command to verify the status of the LSMS:

```
rept-stat-lsms
```

A sample output follows:

```

RLGHNCXA03W 00-04-17 14:59:11 EST Release 31.3.0
                                GPL      PST      SST      AST
-----
LSMS SYSTEM                    IS-ANR    Restricted  -----
TDM TRM          6              IS-NR     Active     -----
OAP              A      220-001-000  OOS-MT    Isolated   -----
OAP              B      -----    OOS-MT    Isolated   -----
Q.3 Assoc       A1              IS-NR     Active     -----
Q.3 Assoc       B1              OS-MT     Fault      -----

LSMS SYSTEM  ALARM STATUS = *C 0356  LSMS is unavailable
OAP A        ALARM STATUS = No Alarms.
OAP B        ALARM STATUS = ** 0341 OAP unavailable
Q.3 Assoc A1 ALARM STATUS = No Alarms.
Q.3 Assoc B1 ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

6. If the problem still persists, reset the OAP by entering the following command.

```
init-oap:oap=x
```

where *x* is *a*, *b*, or *both*. See the *Commands Manual* for the correct usage.

This procedure is complete if the OAP comes back in-service within five minutes and the system clears the alarm.

7. Enter the following command to verify the status of the LSMS:

```
rept-stat-lsms
```

Refer to Step 5 for a sample output.

8. Enter the following command to inhibit the unavailable OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

9. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```


Corrective Maintenance

where x is the port number.

10. If the problem is still not corrected, reseal the TDM card. If the OAP still does not respond, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

11. Enter the following command for each OAP terminal inhibited:

```
chg-trm:trm=x:type=oap
```

where x is the port number.

12. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where x is the port number.

13. Enter the following command to verify the status of the LSMS:

```
rept-stat-lsms
```

Refer to Step 5 for a sample output.

14. If the LSMS is still not available, contact the *Customer Care Center*, see page 1-12.
-

0357 - All OAP terminals are removed

The OAP terminals have been modified to another type using the `chg-trm` command.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0357 LSMS SYSTEM All OAP terminals are removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0358 - LSMS Q.3 association unavailable

An LSMS Q.3 association is not available.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0358 ** LSMS Q.3 Assoc. A1 LSMS Q.3 association unavailable
```

Alarm Level: Major

Recovery

1. Check the physical connections between the OAP and the LSMS. Make sure the connectors are firmly seated.
2. Enter the following command to verify the status of the LSMS:

rept-stat-lsms

A sample output follows:

```
RLGHNCXA03W 00-04-17 14:59:11 EST Release 31.3.0
                                GPL      PST      SST      AST
-----
LSMS SYSTEM                    IS-ANR    Restricted  -----
TDM TRM                         6         IS-NR     Active     -----
OAP A                          220-001-000 OOS-MT    Isolated   -----
OAP B                          -----   OOS-MT    Isolated   -----
Q.3 Assoc A1                   IS-NR     Active     -----
Q.3 Assoc B1                   OS-MT     Fault      -----

LSMS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A       ALARM STATUS = No Alarms.
OAP B       ALARM STATUS = ** 0341 OAP unavailable
Q.3 Assoc A1 ALARM STATUS = No Alarms.
Q.3 Assoc B1 ALARM STATUS = ** 0358 LSMS Q.3 association unavailable
```

Command Completed.

Refer to the *Commands Manual* to interpret the output.

3. If the problem still persists, reset the OAP by entering the following command.

```
init-oap:oap=x
```

where x is a, b or both. See the *Commands Manual* for the correct usage.

This procedure is complete if the OAP comes back in-service within three minutes and the system clears the alarm.

4. Enter the following command to verify the status of the LSMS:

```
rept-stat-lsms
```

Refer to Step 2 for a sample output.

5. Enter the following command to inhibit the unavailable OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where x is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

6. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```

where x is the port number.

7. If the problem is still not corrected, reseal the TDM card. If the OAP still does not respond, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

8. Enter the following command for each OAP terminal inhibited:

```
chg-trm:trm=x:type=oap
```

where x is the port number.

9. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where x is the port number.

10. Enter the following command to verify the status of the LSMS:

```
rept-stat-lsms
```

Refer to Step 2 for a sample output.

11. If the LSMS Q.3 association is still not available, contact the *Customer Care Center*, see page 1-12.
-

0359 - LSMS Q.3 association available

A LSMS Q.3 association is available.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0359 LSMS Q.3 Assoc. A1 LSMS Q.3 association available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0360 - EMS Agent unavailable

An EMS agent is not available.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
** 0100.0360 ** OAP B EMS Agent unavailable
```

Alarm Level: Major

Recovery

1. Reset the OAP by entering the following command.

```
init-oap:oap=x
```

Corrective Maintenance

where x is a , b , or $both$. Refer to the *Commands Manual* for the correct usage. This procedure is complete if the OAP comes back in-service within five minutes and the system clears the alarm.

2. Enter the following command to determine the reason for the failure:

```
rept-stat-lsms
```

Following is an example of the output:

```
RLGHNCXA03W 00-04-17 14:59:11 EST Release 31.3.0
                                GPL          PST          SST          AST
-----
LSMS SYSTEM                    IS-ANR      Restricted  -----
TDM TRM                         6          IS-NR      Active      -----
OAP                             A    220-001-000 OOS-MT     Isolated   -----
OAP                             B    -----   OOS-MT     Isolated   -----
Q.3 Assoc                      A1         IS-NR      Active      -----
Q.3 Assoc                      B1         OS-MT     Fault       -----

LSMS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A       ALARM STATUS = No Alarms.
OAP B       ALARM STATUS = ** 0360 EMS Agent unavailable
Q.3 Assoc A1 ALARM STATUS = No Alarms.
Q.3 Assoc B1 ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

Command Completed.
```

Refer to the *Commands Manual* to interpret the output.

3. Enter the following command to inhibit the unavailable OAP terminal displayed in the output from step 2:

```
inh-trm:trm=x
```

where x is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

4. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```

where x is the port number.

5. If the problem is still not corrected, reseal the TDM card. If the OAP still does not respond, replace the TDM card.

See Appendix A, *Card Removal/Replacement Procedures*.

6. Enter the following command for each OAP terminal inhibited:

```
chg-trm:trm=x:type=oap
```

where x is the port number.

7. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where x is the port number.

8. If the EMS agent is still not available, contact the *Customer Care Center*, see page 1-12.
-

0361 - EMS Agent available

An EMS agent is available.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.0361 OAP A EMS Agent available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0362 - LSMS is at min. service limit

Only one communication path is available to the LSMS.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
** 0014.0362 ** LSMS SYSTEM LSMS is at min. service limit
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the reason for the failure:

rept-stat-lsms

Following is an example of the output:

```

                                GPL          PST          SST          AST
RLGHNCXA03W 00-04-17 14:59:11 EST Release 31.3.0
-----
LSMS SYSTEM                                IS-ANR      Restricted  -----
TDM TRM           6                        IS-NR      Active      -----
OAP               A    220-001-000         OOS-MT     Isolated   -----
OAP               B    -----          OOS-MT     Isolated   -----
Q.3 Assoc        A1                        IS-NR      Active      -----
Q.3 Assoc        B1                        OS-MT      Fault       -----

LSMS SYSTEM ALARM STATUS = ** 0362 LSMS is at min service limit
OAP A       ALARM STATUS = No Alarms.
OAP B       ALARM STATUS = ** 0341 OAP unavailable
Q.3 Assoc A1 ALARM STATUS = No Alarms.
Q.3 Assoc B1 ALARM STATUS = ** 0358 LSMS Q.3 association unavailable

```

Command Completed.

Refer to the *Commands Manual* to interpret the output.

2. If 0341 OAP unavailable is displayed, follow recovery procedure 0341 - OAP Unavailable.

 3. If 0358 LSMS Q.3 association unavailable is displayed, follow recovery procedure 0358 - LSMS Q.3 association unavailable.

 4. If 0354 OAP TDM Port unavailable is displayed, follow recovery procedure 0354 - One OAP terminal unavailable.

 5. If the problem is not solved, contact the *Customer Care Center*, see page 1-12.
-

0363 - OAP filesystem full

One of the OAP file systems has exceeded a 95% threshold.

Example

```

RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0363 * OAP A OAP filesystem full.

```

Alarm Level: Minor

Recovery

Contact the *Customer Care Center*, see page 1-12.

0364 - Configuration data checksum mismatch

This indicates the OAP configuration data does not match the OAP configuration data stored in the system database. There is a mismatch between the system and OAP databases.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0
* 0014.0364 * OAP A Configuration data checksum mismatch
```

Alarm Level: Minor

Recovery

1. Enter the following command to retrieve the OAP configuration data stored in the system:

```
rtrv-oap-config
```

The output of the **rtrv-oap-config** command displays different fields depending on whether the SEAS feature is on, the LNP feature is on, or both features are on. The following output example shows both the SEAS and LNP features on.

```
rtrv-oap-config

RLGHNCXA03W 99-01-07 00:57:31 EST EAGLE 35.0.0
OAP CONFIGURATION REPORT

DATA                OAP A                OAP B
-----                -
Hostname            tekelec-8            tekelec-9
IP Address          128.132.064.015     128.132.064.016
IP Netmask          <Not Configured>    <Not Configured>
Default Router      <Not Configured>    <Not Configured>
Config              dual                 dual
SEAC CLLI           SEASNJPYRRC         SEASNJPYRRC
X25 Packet Size     7                   7
X25 Mode            DTE                  DTE
Active LSMS         shadow               shadow
Main LSMS NSAP      198.089.039.022     198.089.039.022
Main LSMS SSEL      emss                 emss
Main LSMS PSEL      emsp                 emsp
Shadow LSMS NSAP    198.089.039.023     198.089.039.023
```


Corrective Maintenance

```
Shadow LSMS SSEL      emss
Shadow LSMS PSEL      emsp
;
```

- Review the retrieved information, looking for errors or unprovisioned parameters. Table 3-22 lists OAP configuration parameters from the above output that must be provisioned if a given feature is on.

Table 3-22. OAP Configuration Parameters

Output	Legend	Feature
Hostname	Host name of OAP A or OAP B	LNP or SEAS
IP Address	IP address of OAP A or OAP B	LNP
IP Netmask	The netmask for OAP A or OAP B	Not required
Default Router	The IP address of the default router assigned to OAP A or OAP B	Not required
Config	The number of OAPs configured (single or dual)	LNP or SEAS
SEAC CLLI	The common language location identifier (CLLI) of the SEAC to which the OAP connects.	SEAS
X25 Packet Size	The X.25 package size for the link to the SEAC (7 or 8)	SEAS
X25 Mode	The mode of the X.25 link to the SEAC (DTE or DTC)	SEAS
Active LSMS	The LSMS associated with the OAP (main or shadow)	LNP
Main LSMS NSAP	The network service access point of the main LSMS (If lsms=shadow , this parameter set is not mandatory.)	LNP
Main LSMS SSEL	The session selector of the main LSMS (If lsms=shadow , this parameter set is not mandatory.)	LNP
Main LSMS PSEL	The presentation selector of the main LSMS (If lsms=shadow , this parameter set is not mandatory.)	LNP
Shadow LSMS NSAP	The network service access point of the shadow LSMS (If lsms=main , this parameter set is not mandatory.)	LNP
Shadow LSMS SSEL	The session selector of the shadow LSMS (If lsms=main , this parameter set is not mandatory.)	LNP
Shadow LSMS PSEL	The presentation selector of the shadow LSMS (If lsms=main , this parameter set is not mandatory.)	LNP

NOTE: If you find no errors or provision omissions, go to Step 4. If you find errors or provision omissions, contact your IS department to obtain the correct values and contact the *Customer Care Center*, see page 1-12.

- Enter the following command to update the OAP database:

act-oap-config

4. If the fault does not clear, contact the *Customer Care Center*, see page 1-12.
-

0365 - Configuration data checksum alarm cleared

This indicates that the system databases once out of sync are now back in sync.

Example

```
RLGHNCXA21W 94-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0365 OAP A Configuration data checksum alarm cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0366 - Temp Key(s) expiration alarm cleared

This message indicates that there are no temporary keys currently in the expired state, and the alarm condition, specified by message "0368 - Temp Key(s) have expired," has been cleared.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 5.0.0-32.0.0  
0100.0366 SYSTEM Temp Key(s) expiration alarm cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

NOTE: Further access to this controlled feature requires the purchase of a permanent key.

0367 - Temp Key(s) expiring soon

This alarm indicates that one or more temporary keys used to enable a controlled feature will expire within the next seven days.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 5.0.0-32.0.0
** 0100.0367 SYSTEM Temp Key(s) expiring soon
```

Alarm Level: Major

Recovery

1. Enter the following command to retrieve information about controlled features:

```
rtrv-ctrl-feat:enable=temp
```

The output of the **rtrv-ctrl-feat:enable=temp** command displays information about the number of days left for temporarily enabled features.

Following is an example of the output:

```
The following features have been temporarily enabled:
RLGHNCXA03W 99-01-07 00:57:31 EST EAGLE 5.0.0-32.0.0
Feature Name          Partnum    Status    Quantity    Trial
Period Left
TPS893000140on40006 days 5 hrs 3 mins
```

2. If you do nothing within the remaining trial period, the critical alarm, "0368 - Temp Key(s) have expired" will display when the trial period expires.
 3. If you wish to acquire this feature permanently, you can purchase it from Tekelec. The alarm will be cleared when the purchased feature is enabled using the **enable-ctrl-feat** command.
-

0368 - Temp Key(s) have expired

This alarm indicates that one or more temporary keys used to enable a controlled feature have expired.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 5.0.0-32.0.0
*C 0100.0368     SYSTEM     Temp Key(s) have expired
```

Alarm Level: Critical

Recovery

1. Enter the following command to retrieve information about controlled features:

```
rtrv-ctrl-feat:expired=yes
```

The output of the **rtrv-ctrl-feat:expired=yes** command displays information about expired temporarily enabled features.

Following is an example of the output:

```
RLGHNCXA03W 99-01-07 00:57:31 EST EAGLE 5.0.0-32.0.0
The following features have expired temporary keys:
Feature Name          Part Num
TPS8930000140
```

2. You can enter the **chg-ctrl-feat:partnum=893xxxxxx:alarm=clear** command to clear this alarm.
3. If you wish to acquire this feature permanently, you can purchase it from Tekelec and enable it using the **enable-ctrl-feat** command. The alarm will clear when the purchased feature is installed with a permanent key.

0369- REPT-T1F:FAC-T1 unavailable

There is a problem at the far end and the far end is not communicating with the EAGLE 5 ISS.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
```

Corrective Maintenance

```
** 0014.0369 ** T1PORT 1201,2      REPT-T1F:FAC-T1 unavailable
```

Alarm Level: Major

Recovery

Contact the far-end office to determine the cause and to correct the problem.

0370 - Critical Platform Failure(s)

This message indicates the application running in the MPS server has detected a critical platform failure. The Alarm Data in the message contains a 16-character hexadecimal string in the format of h'1xxxxxxxxxxxxxx'. This alarm will be reset when UAM #250, MPS Available is issued.

Example

```
station1234 00-09-30 16:28:08 EST EAGLE 35.0.0
*C 0259.0370 *C MPS B                      Critical Platform Failure(s)
      ALARM DATA = h'10000000000000008'
```

Alarm Level: Critical

Recovery

1. To decode the ALARM DATA included in this alarm, write down the Alarm Data string.

2. To decode the alarm and for the correct procedure to solve the problem, refer to the *MPS Platform Software and Maintenance Manual*.

3. This alarm will be reset when the problem is resolved and you receive UIM #250 MPS Available.

0371 - Critical Application Failure(s)

This message indicates the application running in the MPS server has detected a critical application failure. The Alarm Data in the message contains a 16-character hexadecimal string in the format of h'2xxxxxxxxxxxxxx'. This alarm will be reset when UAM #250, MPS Available is issued.

Example

```
station1234 00-09-30 16:28:08 EST EAGLE 35.0.0
*C 0259.0371 *C MPS B Critical Application Failure(s)
ALARM DATA = h'2000000000000001'
```

Alarm Level: Critical

Recovery

-
1. To decode the ALARM DATA included in this alarm, write down the Alarm Data string.

 2. To decode the alarm and for the correct procedure to solve the problem, refer to the *MPS Platform Software and Maintenance Manual*.

 3. This alarm will be reset when the problem is resolved and you receive UIM #250 MPS Available.
-

0372 - Major Platform Failure(s)

This message indicates the application running in the MPS server has detected a major platform failure. The Alarm Data in the message contains a 16-character hexadecimal string in the format of h'3xxxxxxxxxxxxxx'. This alarm will be reset when UAM #250, MPS Available is issued.

Example

```
station1234 00-09-30 16:28:08 EST EAGLE 35.0.0
** 0259.0372 ** MPS B Major Platform Failure(s)
ALARM DATA = h'3000000000000002'
```

Alarm Level: Major

Recovery

1. To decode the ALARM DATA included in this alarm, write down the Alarm Data string.

 2. To decode the alarm and for the correct procedure to solve the problem, refer to the *MPS Platform Software and Maintenance Manual*.

 3. This alarm will be reset when the problem is resolved and you receive UIM #250 MPS Available.
-

0373 - Major Application Failure(s)

This message indicates the application running in the MPS server has detected a major application failure. The Alarm Data in the message contains a 16-character hexadecimal string in the format of h'4xxxxxxxxxxxxxx'. This alarm will be reset when UAM #250, MPS Available is issued.

Example

```
station1234 00-09-30 16:28:08 EST EAGLE 35.0.0
** 0259.0373 ** MPS B Major Application Failure(s)
ALARM DATA = h'4000000000000008'
```

Alarm Level: Major

Recovery

1. To decode the ALARM DATA included in this alarm, write down the Alarm Data string.

 2. To decode the alarm and for the correct procedure to solve the problem, refer to the *MPS Platform Software and Maintenance Manual*.

 3. This alarm will be reset when the problem is resolved and you receive UIM #250 MPS Available.
-

0374 - Minor Platform Failure(s)

This message indicates the application running in the MPS server has detected a minor platform failure. The Alarm Data in the message contains a 16-character hexadecimal string in the format of h'5xxxxxxxxxxxxxx'. This alarm will be reset when UAM #250, MPS Available is issued.

Example

```
station1234 00-09-30 16:28:08 EST EAGLE 35.0.0
* 0259.0374 * MPS B Minor Platform Failure(s)
ALARM DATA = h'5000000000000004'
```

Alarm Level: Minor

Recovery

-
1. To decode the ALARM DATA included in this alarm, write down the Alarm Data string.

 2. To decode the alarm and for the correct procedure to solve the problem, refer to the *MPS Platform Software and Maintenance Manual*.

 3. This alarm will be reset when the problem is resolved and you receive UIM #250 MPS Available.
-

0375 - Minor Application Failure(s)

This message indicates the application running in the MPS server has detected a minor application failure. The Alarm Data in the message contains a 16-character hexadecimal string in the format of h'6xxxxxxxxxxxxxx'. This alarm will be reset when UAM #250, MPS Available is issued.

Example

```
station1234 00-09-30 16:28:08 EST EAGLE 35.0.0
* 0259.0375 * MPS B Minor Application Failure(s)
ALARM DATA = h'6000000000000001'
```

Alarm Level: Minor

Recovery

1. To decode the ALARM DATA included in this alarm, write down the Alarm Data string.

2. To decode the alarm and for the correct procedure to solve the problem, refer to the *MPS Platform Software and Maintenance Manual*.

3. This alarm will be reset when the problem is resolved and you receive UIM #250 MPS Available.

0376- REPT-T1F:FAC-T1 LOS failure

No signal is being received on the T1 Port.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0376 ** T1PORT 1201,2 REPT-T1F:FAC-T1 LOS failure
```

Alarm Level: Major

Recovery

Check the physical connections.

0377- REPT-T1F:FAC-T1 LOF failure

The 7-bit frame alignment signal does not match the pattern the EAGLE 5 ISS is expecting.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0377 ** T1PORT 1201,2 REPT-T1F:FAC-T1 LOF failure
```

Alarm Level: Major

Recovery

Contact the far-end office to correct their framing problem.

0378- REPT-T1F:FAC-T1 Remote Alarm

This indicates there is some type of failure on the far end.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0378 ** T1PORT 1201,2 REPT-T1F:FAC-T1 Remote Alarm
```

Alarm Level: Major

Recovery

Contact the far-end office to determine the cause and correct the problem.

0379- REPT-T1F:FAC-T1 Alarm

The far end is transmitting an alarm indication signal (AIS) due to an excessive bit error rate, loss of signal, or loss of frame.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0377 ** T1PORT 1201,2 REPT-T1F:FAC-T1 Alarm
```

Alarm Level: Major

Recovery

Contact the far-end office to determine the cause of the AIS and to correct the problem.

Corrective Maintenance

0380 - RCVRY-T1F:FAC-T1 available

The T1 port 1 is back in-service.

Example

```
RLGHNCXA21W 00-11-07 11:02:30 EST EAGLE 35.0.0  
0014.0380 T1PORT 1201,2 RCVRY-T1F:FAC-T1 available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0381- REPT-E1F:FAC-E1 LOS failure

No signal is being received on the signaling link.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0381 ** E1PORT 1201,2 REPT-E1F:FAC-E1 LOS failure
```

Alarm Level: Major

Recovery

Check the physical connections.

0382- REPT-E1F:FAC-E1 LOF failure

The 7-bit frame alignment signal does not match the pattern the EAGLE 5 ISS is expecting.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0382 ** E1PORT 1201,2 REPT-E1F:FAC-E1 LOF failure
```

Alarm Level: Major

Recovery

Contact the far-end office to correct their framing problem.

0383- REPT-E1F:FAC-E1 AIS detected

The far end is transmitting an alarm indication signal (AIS) due to an excessive bit error rate, loss of signal, or loss of frame.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0383 ** E1PORT 1201,2 REPT-E1F:FAC-E1 AIS detected
```

Alarm Level: Major

Recovery

Contact the far-end office to determine the cause of the AIS and to correct the problem.

0384- REPT-E1F:FAC-E1 Far End Failure

This indicates there is some type on failure on the far end.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0384 ** E1PORT 1201,2 REPT-E1F:FAC-E1 Far End Failure
```

Corrective Maintenance

Alarm Level: Major

Recovery

Contact the far-end office to determine the cause and to correct the problem.

0385- REPT-E1F:FAC-E1 10E-3 BER failed

A framing bit error rate is maintained for in-service links because the error rate is high.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0385 ** E1PORT 1201,2 REPT-E1F:FAC-E1 10E-3 BER failed
```

Alarm Level: Major

Recovery

Contact the far-end office to determine the cause of the high framing bit error rate.

0386 - RCVRY-E1F:FAC-E1 available

The E1 port 1 is back in-service.

Example

```
RLGHNCXA21W 00-11-07 11:02:30 EST EAGLE 35.0.0
0014.0386 E1PORT 1201,2 RCVRY-E1F:FAC-E1 available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0387- REPT-E1F:FAC-E1 unavailable

There is a problem at the far end and the far end is not communicating with the EAGLE 5 ISS.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0387 ** E1PORT 1201,2 REPT-E1F:FAC-E1 unavailable
```

Alarm Level: Major

Recovery

Contact the far-end office to determine the cause and to correct the problem.

0388 - Illegal Address Error has Cleared

This message indicates the clearing of a prior illegal address error. Previously, the HMUX-assigned shelf ID address received from OAM did not match the value read from the Assigned Shelf Address Register, resulting in major alarm UAM #0390. This message shows the previous alarm has cleared.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0
0012.0388 CARD 1109 HMUX Illegal Address Error has Cleared
```

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

This message indicates a previous fault, which was indicated by UAM #0390, has been corrected. No further action is necessary.

0389 - Card responding normally

This message indicates the clearing of a prior HMUX/HIPR not responding error. Previously, an HMUX/HIPR was not responding to polls from the OAM, resulting in major alarm UAM #0391. This message shows the previous alarm has cleared.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0  
0012.0389      CARD 1209 HIPR Card responding normally
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault, which was indicated by UAM #0391, has been corrected. No further action is necessary.

0390 - Illegal Address Error

This message indicates an HMUX (High Speed Multiplexer) illegal address error. The ATH (Application Trouble Handler) displays this alarm when an HMUX-assigned shelf ID address, which was received from OAM and written to the Assigned Shelf Address Register, did not match the value read from the Assigned Shelf Address Register. Furthermore, the error was not corrected after an automatic attempt to correct the address discrepancy.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0  
** 0012.0390 ** CARD 1109 HMUX Illegal Address Error
```

Alarm Level: Major

Recovery

1. Reset the HMUX card in question by entering the command:

```
init-mux:loc=xy09 (or loc=xy10)
```

This command resets the card, but it does not take down the IMT bus on which the card resides; operation of the bus is unaffected by this command.

2. If the problem persists, then you should reseal the HMUX card in question. Remember that this action will take down the IMT bus of the HMUX card.
 3. If the problem remains, the card must be replaced. Contact Tekelec Technical Support.
-

0391 - Card not responding Error

This message indicates an HMUX (High Speed Multiplexer)/HIPR (High-Speed IMT Packet Router) is not responding. This alarm is displayed when an HMUX/HIPR in a provisioned shelf card does not respond.

Example

```
station1234 00-11-30 16:28:08 EST EAGLE 35.0.0
** 0012.0391 ** CARD 1109 HIPR Card not responding Error
```

Alarm Level: Major

Recovery

1. Reset the HMUX/HIPR card in question by entering the command:

```
init-mux:loc=xy09 (or loc=xy10)
```

This command resets the card, but it does not take down the IMT bus on which the card resides; operation of the bus is unaffected by this command.

2. If the problem persists, then you should reseal the HMUX/HIPR card in question. Remember that this action will take down the IMT bus of the HMUX/HIPR card.
-

3. If the problem remains, the card must be replaced. Contact the *Customer Care Center*, see page 1-12.
-

0392 - OA&M IP Security feature is OFF

The Eagle OA&M IP Security Enhancements Feature is not turned on. One of the following occurred: and OAM init, or OAM role change, or the **chg-ctrl-feat** command turned the feature off.

With this feature not operating, you do not have the tools to securely pass data across an otherwise non-secure network. Until the Eagle OA&M IP Security Enhancements Feature is restored, the Eagle cannot provide secure connections from approved clients, and does not protect sensitive passwords and information while in transit between the Eagle and a host.

Example

```
RLGHNCXA21W 03-03-03 12:01:43 EST EAGLE 35.0.0
** 0047.0392 ** SECURITY SYSTEM OA&M IP Security feature status is OFF
```

Alarm Level: Major

Recovery

To restore the OA&M IP Security Enhancements feature, you turn it on permanently. To turn the feature on, use the **enable-ctrl-feat** command.

0393 - OA&M IP Security feature is ON

The Eagle OA&M IP Security Enhancements Feature is turned on. This UAM is an informational message that confirms that the feature is restored to operational status.

With this feature operating, you have the tools to securely pass data across an otherwise non-secure network. With the Eagle OA&M IP Security Enhancements Feature operational, the Eagle can provide secure connections from approved clients, and protects sensitive passwords and information while in transit between the Eagle and a host.

Example

```
RLGHNCXA21W 03-03-03 12:01:43 EST EAGLE 35.0.0
```

0047.0393 SECURITY SYSTEM OA&M IP Security feature status is ON

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates that the feature previously was OFF and now has been turned ON. No further action is necessary.

0394 - Local Subsystem is available

This message indicates that a problem with the INP subsystem has been corrected.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0056.0394 INP SYSTEM Local Subsystem is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0395 - Local Subsystem is not available

The INP subsystem is not available. There are no IS-NR VSCCP cards associated with this INP subsystem. The INP subsystem was not taken off-line via command.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
*C 0056.0395 *C INP SYSTEM Local Subsystem is not available
```

Corrective Maintenance

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

2. Enter the following command to move the VSCCP cards to an ACTIVE status if loading is successful:

```
rst-card:loc=xxxx
```

xxxx is the location of the OOS-MT-DSBLD VSCCP card(s) identified in step 1.

3. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

4. Verify the VSCCP card(s) reset in step 2 are IS-NR. If not, reseal the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0396 - Local Subsystem is disabled

The INP subsystem has been manually disabled using the **inh-map-ss** command.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0056.0396 *C INP SYSTEM      Local Subsystem is disabled
```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status and location of the INP subsystem cards.

```
rept-stat-mps
```

2. Enter the following command to reserve the subsystem number and to change the state of the INP subsystem status to on-line:

```
ent-ss-appl:appl=inp:ssn=xx:stat=online
```

xx is primary subsystem number.

3. Enter the following command to change the state of the INP subsystem to on-line:

```
alw-map-ss:ssn=xx
```

xx is primary subsystem number.

4. Enter the following command to verify the status of the INP subsystem.

```
rept-stat-mps
```

0397 - Local Subsystem is removed

The INP subsystem is not fully equipped. There are no VSCCP cards configured with this INP subsystem.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0056.0397      INP SYSTEM      Local Subsystem is removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Verify the VSCCP hardware. Configure the INP system with VSCCP cards.

See Appendix A, *Card Removal/Replacement Procedures*.

Corrective Maintenance

0398 - Local Subsystem normal,card(s) abnormal

One or more of the VSCCP cards do not have an ACTIVE status.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
* 0056.0398 * INP SYSTEM Local Subsystem normal,card(s) abnormal
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

2. Enter the following command to move the VSCCP card to an ACTIVE status if loading is successful:

```
rst-card:loc=xxxx
```

xxxx is the location of the OOS-MT-DSBLD VSCCP card(s) identified in step 1.

3. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

4. Verify the VSCCP card(s) reset in step 2 are IS-NR. If not, reseal the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0399 - RCVRY-LKSTO:Alarm clr'd by deleting SLK

A signaling link (SLK) that was out of service and had an outstanding alarm has been deleted from the database. The alarm is cleared.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0399 LSN a24546 RCVRY-LKSTO:Alarm clr'd by deleting SLK
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0400 - Alarm cleared by deleting card

A card that was out of service and had an outstanding alarm has been deleted from the system database. The alarm is cleared.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0400 CARD 1202 SCCP Alarm cleared by deleting card
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous failure has been corrected. No further action is necessary.

0401 - Alarm cleared by deleting SLK

A signaling link (SLK) that was out of service and had an outstanding alarm has been deleted from the database. The alarm is cleared.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0401 SLK 1205,A SS7ANSI Alarm cleared by deleting SLK
```

Corrective Maintenance

SLC=01 FECLLI=A1234567890

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0402 - Alarm cleared by deleting route

A route that was out of service and had an outstanding alarm has been deleted from the database. The alarm is cleared.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.0402 DPC 001-001-001 Alarm cleared by deleting route
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0403 - 1114 E1/T1 clock requires TDM-GTI

This message indicates that the high speed clock is provisioned as T1 framed, E1 framed, or E1 unframed. A non TDM-GTI card has been placed in this system where recovered clocks are provisioned. The TDM-GTI version of the TDM card is required.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 35.0.0  
** 0052.0403 ** HS CLOCK SYSTEM 1114 E1/T1 clock requires TDM-GTI
```

Alarm Level: Major

Recovery

Perform one of the following:

Replace the card in location 1114 with a TDM-GTI card. Refer to Appendix A, *Card Removal/Replacement Procedures*, section Terminal Disk Module (TDM)/TDM-GTI for the replacement procedure.

OR

Use the **chg-stpopts** command to change the **hsclksrc** parameter to RS422. Refer to the *Commands Manual* for proper usage of the command.

0404 - 1116 E1/T1 clock requires TDM-GTI

This message indicates that the high speed clock is provisioned as T1 framed, E1 framed, or E1 unframed. A non TDM-GTI card has been placed in this system where recovered clocks are provisioned. The TDM-GTI version of the TDM card is required.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 35.0.0
** 0052.0404 ** HS CLOCK SYSTEM 1116 E1/T1 clock requires TDM-GTI
```

Alarm Level: Major

Recovery

Perform one of the following:

Replace the card in location 1116 with a TDM-GTI card. Refer to Appendix A, *Card Removal/Replacement Procedures*, section Terminal Disk Module (TDM)/TDM-GTI for the replacement procedure.

OR

Use the **chg-stpopts** command to change the **HSCLKSRC** parameter to RS422. Refer to the *Commands Manual* for proper usage of the command.

Corrective Maintenance

0405 - 1114, 1116 E1/T1 clock requires TDM-GTI

This message indicates that the high speed clock is provisioned as T1 framed, E1 framed, or E1 unframed. A non TDM-GTI card has been placed in this system in slots 1114 and 1116 where recovered clocks are provisioned. The TDM-GTI version of the TDM card is required.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 35.0.0
** 0052.0405 ** HS CLOCK SYSTEM 1114, 1116 E1/T1 clock requires TDM-GTI
```

Alarm Level: Major

Recovery

Perform one of the following:

Replace the cards in locations 1114 and 1116 with a TDM-GTI card. Refer to Appendix A, *Card Removal/Replacement Procedures*, section Terminal Disk Module (TDM)/TDM-GTI for the replacement procedure.

OR

Use the **chg-stpopts** command to change the **HSCLKSRC** parameter to RS422. Refer to the *Commands Manual* for proper usage of the command.

0406 - 1114 Clock selection mismatch

This message indicates that the database has been restored and the provisioned clocks do not match what is running on the TDM.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0406 ** HS CLOCK SYSTEM 1114 Clock selection mismatch
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the current clock settings on the TDM.

rept-stat-clk

Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active         PRIMARY BITS      = -----
SECONDARY BITS   = Idle           SECONDARY BITS   = -----
HS PRIMARY CLK   = Active         HS PRIMARY CLK   = -----
HS SECONDARY CLK = Idle           HS SECONDARY CLK = -----
HS CLK TYPE      = E1 UNFRAMED    HS CLK TYPE      = -----
HS CLK LINELEN   = SHORThAUL      HS CLK LINELEN   = -----

SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

HS SYSTEM CLOCK
ALARM STATUS     = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

Command Completed.
```

2. Use the **chg-stpopts** command to update the database to match output from the previous command. Refer to the *Commands Manual* for proper usage of the command.
-

0407 - 1116 Clock selection mismatch

This message indicates that the database has been restored and the provisioned clocks do not match what is running on the TDM.

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0407 ** HS CLOCK SYSTEM 1116 Clock selection mismatch
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the current clock settings on the TDM.

rept-stat-clk

Following is an example of the output:

```

rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

PST              SST              AST
IS-NR            ACTIVE           ALMINH

Command Completed.

```

2. Use the **chg-stpopts** command to update the database to match output from the previous command. Refer to the *Commands Manual* for proper usage of the command.
-

0408 - 1114, 1116 Clock selection mismatch

This message indicates that the database has been restored and the provisioned clocks do not match what is running on the TDM.

Example

```

station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
** 0052.0408 ** HS CLOCK SYSTEM 1114, 1116 Clock selection mismatch

```

Alarm Level: Major

Recovery

1. Enter the following command to determine the current clock settings on the TDM.

rept-stat-clk

Following is an example of the output:

```
rept-stat-clk
Command entered at terminal #3.
;

tekelecstp 99-03-05 13:34:15 EST EAGLE 31.6.0
CARD LOC= 1114 (Active )          CARD LOC= 1116 (Isolated )
PRIMARY BITS      = Active        PRIMARY BITS      = -----
SECONDARY BITS    = Idle          SECONDARY BITS    = -----
HS PRIMARY CLK    = Active        HS PRIMARY CLK    = -----
HS SECONDARY CLK  = Idle          HS SECONDARY CLK  = -----
HS CLK TYPE       = E1 UNFRAMED   HS CLK TYPE       = -----
HS CLK LINELEN    = SHORThAUL     HS CLK LINELEN    = -----

SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using CLK A = 009          # Cards with bad CLK A = 000
# Cards using CLK B = 000          # Cards with bad CLK B = 009
# Cards using CLK I = 000

HS SYSTEM CLOCK
ALARM STATUS      = No Alarms.
# Cards using HSCLK A = 001        # Cards with bad HSCLK A = 000
# Cards using HSCLK B = 000        # Cards with bad HSCLK B = 002
# Cards using HSCLK I = 000

PST          SST          AST
IS-NR        ACTIVE      ALMINH

Command Completed.
```

2. Use the **chg-stpopts** command to update the database to match output from the previous command. Refer to the *Commands Manual* for proper usage of the command.
-

0409 - Clock configuration corrected

This message indicates that a problem with the high speed clock configuration database has been corrected.

Corrective Maintenance

Example

```
station1234 99-03-05 16:28:08 EST EAGLE 31.6.0
0052.0409 HS CLOCK SYSTEM Clock configuration corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0422 - Insufficient extended memory

At least one SCCP card does not have enough memory for the LNP application. Loading of the SCCP card is automatically inhibited.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0422 ** CARD 1113 SCCP Insufficient extended memory
HW VERIFICATION CODE: xxx
```

Alarm Level: Major

Recovery

1. If this message contains the optional line 'HW VERIFICATION CODE: xxx':
 - Decode the xxx value and correct the indicated problem.
See Appendix F, *Auto-Inhibit HW Verification Codes*
 - After correcting the problem, the card will be in *out-of-service maintenance disabled state* (OOS-MT-DSBLD). Restore the card back to *in-service normal state* (IS-NR) with the **alw-card** command.

If this message does not contain the optional line 'HW VERIFICATION CODE: xxx', continue with the next step.

2. Verify the SCCP hardware. Verify the SCCP cards have at least 256M of memory.
-

3. If necessary, replace the SCCP card with the correct combination of motherboard and daughterboard.

See Appendix A, *Card Removal/Replacement Procedures*.

0423 - Card reload attempted

Card loading is no longer inhibited. The once inhibited card is now attempting to load.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0423 CARD 1108 SCCP Card reload attempted
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0424 - LNP Subsystem is not available

The LNP subsystem is not available. There are no IS-NR SCCP cards associated with this LNP subsystem. The LNP subsystem was not taken off-line via command.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
*C 0056.0424 *C LNP SYSTEM LNP Subsystem is not available
```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-lnp
```

2. Enter the following command to move the SCCP cards to an ACTIVE status if loading is successful:

```
rst-card:loc=xxxx  
where xxxx is the location of the OOS-MT-DSBLD SCCP card(s)  
identified in Step 1.
```

3. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-lnp
```

4. Verify the SCCP card(s) reset in Step 2 are IS-NR. If not, reseal the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0425 - LNP Subsystem normal, card(s) abnormal

One or more of the SCCP cards do not have an ACTIVE status.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0056.0425 LNP SYSTEM LNP Subsystem normal, card(s) abnormal
```

Alarm Level: No alarm condition. The message is informational only

Recovery

1. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-lnp
```

2. Enter the following command to move the SCCP card to an ACTIVE status if loading is successful:

```
rst-card:loc=xxxx
```

where xxxx is the location of the OOS-MT-DSBLD SCCP card(s) identified in Step 1.

3. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-lnp
```

4. Verify the SCCP card(s) reset in Step 2 are IS-NR. If not, reseal the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0426 - LNP Subsystem is available

This message indicates that a problem with LNP system has been corrected.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0056.0426 LNP SYSTEM LNP Subsystem is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0427 - LNP database corrupted

The LNP audit on an OAM card detects that the current LNP database on that card is corrupt.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
* 0100.0427 * CARD 1114 OAM LNP database corrupted
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status of the LNP database:

```
rept-stat-db
```

The following is an example of output for a corrupted database.

```
> rept-stat-db  
Command Accepted - Processing  
  
oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0  
rept-stat-db  
Command entered at terminal #4.  
;  
  
oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0  
DATABASE STATUS: >> NOT OK <<  
      TDM 1114 ( STDBY)            TDM 1116 ( ACTV )  
      C  LEVEL    TIME LAST BACKUP  C  LEVEL    TIME LAST BACKUP  
      -  - - - - -  - - - - -      -  - - - - -  - - - - -  
FD BKUP  Y   342256 00-10-07 00:40:29 CDT  Y   342256 00-10-07 00:40:29 CDT  
FD CRNT  N   342374 CORRUPT              Y   342375  
MDAL 1117  
      -  - - - - -
```

2. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

3. Enter the following command to inhibit each OAP terminal displayed in the output from Step 2:

```
inh-trm:trm=x
```

where x is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

4. Enter the following command for the inhibited OAP terminal:

```
chg-trm:trm=x:type=none
```

where *x* is the port number.

5. If the message indicates the active fixed disk is corrupt, continue with Step 6.
If the message indicates the standby fixed disk is corrupt, continue with Step 7.
If the message indicates that both fixed disks are corrupt, continue with Step 8
-

6. Enter the following command only if the active OAM has the corruption problem. This command will force the active OAM card to standby:

```
init-card:loc=xxxx
```

where *xxxx* is the location of the card identified in output.

7. Enter the following command to copy the database partitions from the active disk to the standby disk:

```
chg-db:action=repair
```

Continue with Step 10.

NOTE: Continue with Step 8 if repair is impossible or fails.



CAUTION: Contact the *Customer Care Center*, see page 1-12, before entering the `chg:db:action=restore` command. For additional information about this command, refer to the *Commands Manual*.

8. Enter the following command to restore the database from the removable disk:

```
chg-db:action=restore
```

9. The database must match the level of the current database or network cards in the system. If it does not, contact the *Customer Care Center*, see page 1-12.

Continue with Step 12.



CAUTION: If a disk restore results in an OAM database level different from that on the network cards, (e.g. LIM, GLS, etc.) all out of sync cards are required to be rebooted.

10. After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system).

Corrective Maintenance

rept-stat-card

11. Enter the following command for each OAP terminal inhibited:

chg-trm:trm=x:type=oap

where *x* is the port number.

12. Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where *x* is the port number.

13. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0428 - Backup LNP database corrupted

The LNP audit on an OAM card detects that the backup LNP database on that card is corrupt.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0428 * CARD 1113 OAM Backup LNP database corrupted
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status of the LNP database:

rept-stat-db

The following is an example of output for a corrupted database.

```

> rept-stat-db

Command Accepted - Processing

    oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
    rept-stat-db
    Command entered at terminal #4.
;

oflnmoxallw 00-10-08 15:56:40 CDT EAGLE 35.0.0
DATABASE STATUS: >> NOT OK <<
      TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
      C  LEVEL    TIME LAST BACKUP    C  LEVEL    TIME LAST BACKUP
-----
FD BKUP  Y   342256 CORRUPT            Y   342256 00-10-07 00:40:29 CDT
FD CRNT  N   342374                    Y   342375
      MDAL 1117
      -

```

2. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

3. Enter the following command to inhibit each OAP terminal displayed in the output from Step 2:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

4. Enter the following command if the problem is with the backup database. This command copies database partitions from the active current to the active backup and the standby current to the standby backup.

```
chg-db:action=backup
```

Continue with Step 6.

NOTE: Continue with Step 5 if backup fails.

5. Enter the following command to repair the database by copying current and backup databases from the active to the standby fixed disk:

```
chg-db:action=repair
```

6. The database must match the level of the current and backup databases in the system. If it does not, contact the *Customer Care Center*, see page 1-12.

Corrective Maintenance

Continue with Step 7.

7. After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system).

```
rept-stat-db
```

8. Enter the following command to return the OAP terminals to the in-service state:

```
rst-trm:trm=x
```

where x is the port number.

9. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0429 - LNP database is inconsistent

The LNP audit on the standby OAM or one of the SCCP cards detects that the database on that card does not match the database on the active OAM card.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0429 * CARD 1113 OAM LNP database is inconsistent
```

Alarm Level: Minor

Recovery for a non-MASP card

1. Enter the following command to verify the status of the LNP database:

```
rept-stat-db
```

2. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

3. Enter the following command to inhibit each OAP terminal displayed in the output from Step 2:

```
inh-trm:trm=x
```

where x is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

4. Enter the following command to correct the SCCP card, if necessary. This command reinitializes the card and forces the card to load the current level of the database:

```
init-card:loc=xxxx
```

where $xxxx$ is the location of the card identified in output.

5. Enter the following command to verify that the database is the same level as the other cards in the system:

```
rept-stat-db:display=all
```

6. Check the consistency of the card by entering the following command:

```
rept-stat-db:display=except
```

7. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where x is the port number.

8. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

Recovery for a MASP card

1. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

2. Enter the following command to inhibit each OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x
```

where x is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

3. Enter the following command for each OAP terminal inhibited in Step 2:

```
chg-trm:trm=x:type=none
```

where *x* is the port number.

4. If the message indicates the active fixed disk is inconsistent, continue with Step 5.

If the message indicates the standby fixed disk is inconsistent, continue with Step 6.

If the message indicates that both fixed disks are inconsistent, continue with Step 7.

5. Enter the following command on the active GPSM-II card to force it to become standby:

```
init-card:loc=xxxx
```

where *xxxx* is the card location stenciled on the shelf of the system.

Continue with Step 10

6. Enter the following command to copy the current and backup database partitions on the active fixed disk, to the current and backup database partitions on the standby fixed disk

```
chg-db:action=repair
```

After the command is executed, the standby GPSM-II card reboots, the old database data is purged from memory, and the new database is loaded.

Continue with Step 9.



CAUTION: Contact the *Customer Care Center*, see page 1-12 before entering the `chg-db:action=restore` command. For additional information about this command, refer to the *Commands Manual*.

7. Enter the following command to restore the database from the removable disk:

```
chg-db:action=restore
```

8. The database must match the level of the current database or network cards in the system. If it does not, contact the *Customer Care Center*, see page 1-12.

Continue with Step 12



CAUTION: If a disk restore results in an OAM database level different from that on the network cards, (e.g. LIM, GLS, etc.) all out of sync cards are required to be rebooted.

9. After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system).

```
rept-stat-card
```

10. Enter the following command for each OAP terminal inhibited in Step 2:

```
chg-trm:trm=x:type=oap
```

where *x* is the port number.

11. Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where *x* is the port number.

12. For more information on database management, refer to the *Database Administration Manual*.
-

13. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0430 - Backup LNP database is inconsistent

The LNP audit on the standby OAM or one of the SCCP cards detects that its backup database does not match the database on the active OAM card.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0430 * CARD 1113 OAM Backup LNP database is inconsistent
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status of the LNP database:

```
rept-stat-db
```

2. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

3. Enter the following command to inhibit each OAP terminal displayed in the output from Step 2:

```
inh-trm:trm=x
```

where *x* is the port number.

NOTE: The force parameter is required for the last OAP terminal inhibited.

4. Enter the following command if the problem is with the backup database. This command copies the database partitions from the active fixed disk to the backup partition on the standby disk.

```
chg-db:action=backup
```

5. Verify that measurement collection is on or off by entering this command.

```
rtrv-meas-sched
```

This is an example of the possible output. If measurement collection is on (*COLLECT=ON*), go to step 6. If measurement collection is off (*COLLECT=OFF*), go to step 7.

```
RLGHNCXA03W 00-09-27 07:19:51 EST EAGLE 35.0.0
COLLECT          = on
-----
SYSTOT-STP      = on
SYSTOT-TT       = off
SYSTOT-STPLAN   = off
COMP-LNKSET     = on
COMP-LINK       = on
GTWY-STP        = on
GTWY-LNKSET     = on
MTCD-STP        = on
MTCD-LINK       = on
MTCD-STPLAN     = on
MTCD-LNKSET     = on
```

6. Enter the following command to turn measurement collection off:

chg-meas:collect=off

This message should appear when this command has successfully completed:

```
RLGHNCXA03W 00-03-18 17:02:57 EST EAGLE 35.0.0
CHG-MEAS: MASP A - COMPLTD
```

7. Enter the following command if the problem is with the standby disk. This command copies a mirror image of the fixed disk to the standby disk.

copy-disk:dloc=xxxx

where *xxxx* is the destination location.

8. Enter the following command to verify that the database is the same level as the other cards in the system:

rept-stat-db:display=all

9. If measurement collection was turned off in Step 6, turn measurement collection back on with the **chg-meas** command and the **collect=on** parameter. Enter this command, then go to Step 9. If measurement collection was not turned off in Step 6, do not perform this step and go to Step 10.

chg-meas:collect=on

This message should appear when this command has successfully completed:

```
RLGHNCXA03W 00-03-18 17:02:57 EST EAGLE 35.0.0
CHG-MEAS: MASP A - COMPLTD
```

10. Verify that measurement collection is turned on with the **rtrv-meas-sched** command.

This is an example of the possible output.

```
RLGHNCXA03W 00-09-27 07:19:51 EST EAGLE 35.0.0
COLLECT          = on
-----
SYSTOT-STP      = on
SYSTOT-TT       = off
SYSTOT-STPLAN   = off
COMP-LNKSET     = on
COMP-LINK       = on
GTWY-STP       = on
GTWY-LNKSET     = on
MTC-D-STP      = on
MTC-D-LINK     = on
MTC-D-STPLAN   = on
MTC-D-LNKSET   = on
```

11. Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

Corrective Maintenance

where x is the port number.

12. If the problem persists, contact the *Customer Care Center*, see page 1-12.

0431 - LNP database has been corrected

This message indicates that a problem with the LNP database has been corrected.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0431 CARD 1113 OAM LNP database has been corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0432 - Backup LNP database has been corrected

This message indicates that a problem with the backup LNP database has been corrected.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0432 CARD 1113 OAM Backup LNP database has been corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0434 - LNP Subsystem is removed

The LNP subsystem is not fully equipped. There are no SCCP cards configured with this LNP subsystem.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0056.0434      LNP SYSTEM      LNP Subsystem is removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Verify the SCCP hardware. Configure the LNP system with SCCP cards.

See Appendix A, *Card Removal/Replacement Procedures*.

0435 - LNP Subsystem is disabled

The LNP subsystem has been manually disabled using the **inh-map-ss** command.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0056.0435 *C LNP SYSTEM      LNP Subsystem is disabled
```

Alarm Level: Critical

Recovery

-
1. Enter the following command to verify the status and location of the LNP subsystem cards.

```
rept-stat-lnp
```

2. Enter the following command to change the state of the LNP subsystem status to on-line:

Corrective Maintenance

```
ent-ss-appl:appl=lnp:ssn=xx:stat=online
```

where *xx* is primary subsystem number.

3. Enter the following command to change the state of the LNP subsystem to on-line:

```
alw-map-ss:ssn=xx
```

where *xx* is primary subsystem number.

4. Enter the following command to verify the status of the LNP subsystem.

```
rept-stat-lnp
```

0436 - LNP ACG node overload

This message indicates that the number of LNP subsystem queries has exceeded the supported level.

Example

```
station1234 94-03-30 16:28:08 EST EAGLE 35.0.0  
** 0056.0436 ** LNP SYSTEM          LNP ACG node overload
```

Alarm Level: Major

Recovery

1. Enter the following command to verify the status, quantity, and capacity of the SCCP cards.

```
rept-stat-lnp
```

2. Refer to the *Database Administration Manual - LNP* to verify that provisioning rules are being followed.
-

3. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0437 - System SCCP TPS Capacity Exceeded

This message indicates the Eagle has exceeded its TPS (Transactions Per Second) message transport rate. The alarm will not stop until the TPS rate is below its rated TPS for the system for a period of 30 seconds. The alarm is cleared by the UIM #329 "SCCP capacity normal, card(s) abnormal".

Example

```
RLGHNCXA21W 00-11-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0437 *C SYSTEM          System SCCP TPS Capacity Exceeded
```

Alarm Level: Critical

Recovery

1. Use **rept-stat-sccp** to determine the status of the SCCP subsystem. This command also identifies which SCCP cards are OOS-MT. For example, enter:

```
rept-stat-sccp
```

Following is an example of the output:

```
eaglestp 00-10-24 20:38:58 EST EAGLE 35.0.0
SCCP SUBSYSTEM REPORT IS-NR          Ovflw-1          -----
SCCP Cards Configured= 4 Cards        IS-NR= 4
System TCP Alarm Threshold = 80% Total capacity
System Peak SCCP Load = 3000 TPS
System Total SCCP Capacity = 5000 TPS

CARD   VERSION   PST      SST      AST      MSU USAGE  CPU USAGE
-----
1212   021-001-000 IS-NR     ACTIVE   ALMINH    47%        32%
-----
SCCP Service Average MSU Capacity = 47%    Average CPU Capacity = 32%

Command Completed.
```

2. The user should evaluate this new traffic level and determine whether additional SCCP cards are required to maintain the TPS level the system is processing.

0438 - Degraded Mode, Invalid OAM HW config

This UAM alarm occurs when the system does not have the required baseline hardware. Baseline hardware required includes TDM-10 or greater. The alarm recurs every minute. Also, the **act_upgrade** command is rejected if alarm is present.

Example

```
RLGHNCXA21W 02-12-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0438 *C SECULOG 1114 Degraded Mode, Invalid OAM HW config
```

Alarm Level: Critical

Recovery

Ensure that the Eagle has the required hardware baseline, that is, the TDM-10 or greater is installed.

0439 - Exiting Degraded Mode

The Degraded Mode due to a invalid OAM hardware configuration has been cleared, and the mode has been exited. The HMUX is restored to its full operating capacity.

Example

```
RLGHNCXA21W 02-12-07 12:01:43 EST EAGLE 35.0.0
0014.0439 SECULOG 1114 Exiting Degraded Mode
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0441 - Incorrect MBD - CPU

A card (TSM/DSM) does not have the required hardware configuration for the application, or an TSM is attempting to load in a slot provisioned for SCCP GPLs.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0441 ** CARD 1108 VSCCP Incorrect MBD - CPU
HW VERIFICATION CODE: xxx
```

Alarm Level: Major

Recovery

1. If this message contains the optional line 'HW VERIFICATION CODE: xxx':
 - Decode the xxx value and correct the indicated problem.

Appendix F, Auto-Inhibit HW Verification Codes
 - After correcting the problem, the card will be in *out-of-service maintenance disabled state* (OOS-MT-DSBLD). Restore the card back to *in-service normal state* (IS-NR) with the **alw-card** command.

If this message does not contain the optional line 'HW VERIFICATION CODE: xxx', continue with the next step.

2. Verify the hardware. Verify the card(s) (TSM/DSM) have the correct motherboard/daughterboard combination.
3. If necessary, replace the card(s) (TSM/DSM) with the correct combination of motherboard and daughterboard.

See Appendix A, *Card Removal/Replacement Procedures*.

0442 - RTDB database capacity is 95% full

This message is displayed for EPAP when a DSM card detects that its daughterboard memory is 95% full.

- OR -

This message is displayed for ELAP when the RTDB is 95% full for the specified number of TNs, LRNs, or NPAs.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0.0
* 0100.0442 * CARD 1108 VSCCP RTDB database capacity is 95% full
```

Alarm Level: Minor

Recovery

1. For ELAP, perform the following:
 - Issue the **rtrv-ctrl-feat** command to verify the quantity of TNs, LRNs, or NPAs specified for this system.
 - Either reduce the number of TNs, LRNs, or NPAs to the level specified by the output of the **rtrv-ctrl-feat** command, or respecify the capacity with the **enable-ctrl-feat** command.
2. For EPAP, perform the following:
 - Either reduce the size of the database to match the installed hardware capacities, or obtain and install a larger capacity DSM card.
 - Contact the *Customer Care Center*, see page 1-12, for assistance in determining the size and capacity of your DSM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0443 -RTDB database corrupted

A RTDB database is corrupt. The calculated checksum did not match the checksum value stored for one or more records.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0443 * CARD 1108 VSCCP RTDB database corrupted
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status of the RTDB database:

```
rept-stat-db:display=all:db=mps
```



CAUTION: If more than one card is corrupt, perform Steps 2 through 5 to completion for one card at a time.

2. Enter the following command to verify the status of the corrupt card.

```
rept-stat-card:loc=xxxx
```

Where *xxxx* is the location of the card identified in the output.

3. Examine the output from Step 2. Verify that the SST (secondary state of the card) is not *Restrict*.

If the SST is *Restrict*, do not continue with this procedure. Contact the *Customer Care Center*, see page 1-12.

4. Enter the following command to correct the VSCCP card. This command reinitializes the card and forces the card to load the current level of the database. Wait for the reload to complete before continuing.

```
init-card:loc=xxxx
```

Where *xxxx* is the location of the card identified in output.

5. Enter the following command to verify that the database is the same level as the other cards in the system:

```
rept-stat-db:display=all:db=mps
```

6. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0444 - RTDB database is inconsistent

One or more DSM card's real time database is not identical to the current real time database on the active EPAP fixed disks.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0444 * CARD 1108 VSCCP RTDB database is inconsistent
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status of the RTDB database:

```
rept-stat-db:display=all:db=mps
```



CAUTION: If more than one card is inconsistent, perform Steps 2 through 5 to completion for one card at a time.

2. Enter the following command to verify the status of the inconsistent card.

```
rept-stat-card:loc=xxxx
```

Where *xxxx* is the location of the card identified in the output.

3. Examine the output from Step 2. Verify that the SST (secondary state of the card) is not *Restrict*.

If the SST is *Restrict*, do not continue with this procedure. Contact the *Customer Care Center*, see page 1-12.

4. Enter the following command to correct the VSCCP card. This command reinitializes the card and forces the card to load the current level of the database. Wait for the reload to complete before continuing.

```
init-card:loc=xxxx
```

Where *xxxx* is the location of the card identified in the output.

5. Enter the following command to verify that the database is the same level as the other cards in the system:

```
rept-stat-db:display=all:db=mps
```

6. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0445 - RTDB database has been corrected

This message indicates that a problem with the RTDB has been corrected.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0445 CARD 1108 VSCCP RTDB database has been corrected
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0446 - RTDB database capacity is 80% full

This message is displayed for EPAP when a DSM card detects that its daughterboard memory is at least 80% full.

- OR -

This message is displayed for ELAP when the RTDB reaches 80% full for the specified number of TNs, LRNs, or NPAs.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0.0
* 0100.0446 * CARD 1108 VSCCP RTDB database capacity is 80% full
```

Alarm Level: Minor

Recovery

-
1. For ELAP, perform the following:
 - Issue the **rtrv-ctrl-feat** command to verify the quantity of TNs, LRNs, or NPAs specified for this system.
 - Either reduce the number of TNs, LRNs, or NPAs to the level specified by the output of step 1, or respecify the capacity with the **enable-ctrl-feat** command.
-

Corrective Maintenance

2. For EPAP, perform the following:
 - Either reduce the size of the database to match the installed hardware capacities, or obtain and install a larger capacity DSM card.
 - Contact the *Customer Care Center*, see page 1-12 for assistance in determining the size and capacity of your DSM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0447 - RTDB database capacity alarm cleared

This message indicates that a problem with the RTDB memory has been corrected.

When the TN, LRN or NPA control features are involved, this UAM message indicates either the feature key quantity has been increased or the RTDB database size has been reduced to clear the condition.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
0100.0447 CARD 1108 VSCCP RTDB database capacity alarm cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0448 - RTDB database incoherent

This message indicates that the RTDB database download is in-process or that the update failed.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
* 0100.0448 * CARD 1108 VSCCP RTDB database incoherent
```

Alarm Level: Minor

Recovery

1. If the following is output when the download is complete, no further action is necessary.

Only continue with the remainder of this if the following is not output.
0445 - RTDB database has been corrected



CAUTION: Continue with the remainder of this procedure only if Step 1 did not complete successfully. If more than one card is incoherent, perform steps 2 through 6 to completion for one card at a time.

2. Enter the following command to verify the status of the RTDB database:

```
rept-stat-db:display=all:db=mps
```

3. Enter the following command to verify the status of the incoherent card.

```
rept-stat-card:loc=xxxx
```

Where *xxxx* is the location of the card identified in the output.

4. Examine the output from Step 3. Verify that the SST (secondary state of the card) is not Restrict.

If the SST is Restrict, do not continue with this procedure. Contact the *Customer Care Center*, see page 1-12.

5. Enter the following command to correct the VSCCP card. This command reinitializes the card and forces the card to load the current level of the database. Wait for the reload to complete before continuing.

```
init-card:loc=xxxx
```

Where *xxxx* is the location of the card identified in the output.

6. Enter the following command to verify that the database is the same level as the other cards in the system:

```
rept-stat-db:display=all:db=mps
```

7. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

Corrective Maintenance

0449 - RTDB resynchronization in progress

This message indicates that the MPS database resynchronization is in-process.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
** 0100.0449 ** CARD 1108 VSCCP RTDB resynchronization in progress
```

Alarm Level: Major

Recovery

When the resynchronization is complete, the following message will appear

```
0445 - RTDB database has been corrected
```

No further action is necessary.

0451 - RTDB reload required

The RTDB database on the DSM card needs to be reloaded because the resynch log does not contain all of the required updates.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0  
** 0100.0451 ** CARD 1108 VSCCP RTDB reload required
```

Alarm Level: Major

Recovery

1. Enter the following command to verify the status of the RTDB:

```
rept-stat-db:display=all:db=mps
```

2. Enter the following command to correct the VSCCP card. This command reinitializes the card and forces the card to load the current level of the database:

```
init-card:loc=xxxx
```

where *xxxx* is the location of the card identified in output.

- When the reload is complete, the following message will appear

```
0445 - RTDB database has been corrected
No further action is necessary.
```

- If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0452 - Exceeded Service Error Threshold Lvl 1

This UAM is generated when the EAGLE 5 ISS detects SCCP or Application traffic failure rates greater than the defined level 1 Service Error Threshold.

Example

```
RLGHNCXA21W 00-11-07 11:02:30 EST EAGLE 35.0.0
**0014.0452 ** SCCP SYSTEM Exceeded Service Error Threshold Lvl 1
```

Alarm Level: Major

Recovery

- Enter the following command to verify the database threshold.

```
rtrv-th-alm
```

- Enter the following command to verify the Fail Ratio of the service in question.

```
rept-stat-sccp
```

- Enter the following command to verify all cards are IS-NR.

```
rept-stat-db:display=all
```

Correct all cards in any state other than IS-NR. Refer to Appendix A, *Card Removal/Replacement Procedures*.

- Enter the following command to retrieve records from the active or standby Alarm and UIM logs generated by the Maintenance system:

Corrective Maintenance

```
rtrv-log:type=xxx
```

where: *xxx*=ALL, ALARM, or UIM

For more information on available parameters, refer to the *Commands Manual*.

5. Investigate SCCP, GTT, and Application UIMs and UAMs that relate to the time frame in which the level 1 threshold was reached. Verify the functionality of the Nodes identified in those UIMs or UAMs.
-
6. For further assistance, contact the *Customer Care Center*, see page 1-12.
-

0453 - Exceeded Service Error Threshold Lvl 2

This UAM is generated when the EAGLE 5 ISS detects SCCP or Application traffic failure rates greater than the defined level 2 Service Error Threshold.

Example

```
RLGHNCXA21W 00-11-07 11:02:30 EST EAGLE 35.0.0
*C 0014.0453 *C SCCP SYSTEM Exceeded Service Error Threshold Lvl 2
```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the database threshold.

```
rtrv-th-alm
```

2. Enter the following command to verify the Fail Ratio of the service in question.

```
rept-stat-sccp
```

3. Enter the following command to verify all cards are IS-NR.

```
rept-stat-db:display=all
```

Correct all cards in any state other than IS-NR. Refer to Appendix A, *Card Removal/Replacement Procedures*.

4. Enter the following command to retrieve records from the active or standby Alarm and UIM logs generated by the Maintenance system:

```
rtrv-log:type=xxx
```

where: *xxx*=ALL, ALARM, or UIM

For more information on available parameters, refer to the *Commands Manual*.

5. Investigate SCCP, GTT, and Application UIMs and UAMs that relate to the time frame in which the level 2 threshold was reached. Verify the functionality of the Nodes identified in those UIMs or UAMs.
-

6. For further assistance, contact the *Customer Care Center*, see page 1-12.
-

0454 - Service Error Threshold Alarm Cleared

This message is generated when the Service Error Threshold alarm is cleared.

Example

```
RLGHNCXA21W 00-11-07 11:02:30 EST EAGLE 35.0.0
0014.0454 SCCP 1205,Service Error Threshold Cleared
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0455 - EIR Subsystem is not available

The EIR subsystem is not available. No IS-NR VSCCP cards are associated with this EIR subsystem. No VSCCP cards have an Active EIR status; all are either out-of service (OOS) or loading. The EIR subsystem was not taken off-line via command.

Example

```
RLGHNCXA21W 03-08-18 12:01:43 EST EAGLE 35.0.0
*C 0056.0455 *C EIR SYSTEM EIR Subsystem is not available
```

Corrective Maintenance

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

2. Enter the following command to move the VSCCP cards to an ACTIVE status if loading is successful:

```
rst-card:loc=xxxx
```

where *xxxx* is the location of the OOS-MT-DSBLD VSCCP card(s) identified in step 1.

3. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

4. Verify the VSCCP card(s) reset in step 2 are IS-NR. If not, reseat the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0456 - EIR Subsystem is disabled

The EIR subsystem has been manually disabled with the **inh-map-ss** command. All IS-NR (in service normal) cards have EIR status of Offline, with at least one card IS-NR.

Example

```
RLGHNCXA21W 03-08-18 12:01:43 EST EAGLE 35.0.0
*C 0056.0456 *C EIR SYSTEM EIR Subsystem is disabled
```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status and location of the EIR subsystem cards.

```
rept-stat-mps
```

2. Enter the following command to reserve the subsystem number and to change the state of the EIR subsystem status to on-line:

```
ent-ss-appl:appl=eir:ssn=xx:stat=online
```

where *xx* is primary subsystem number.

3. Enter the following command to change the state of the EIR subsystem to on-line:

```
alw-map-ss:ssn=xx
```

xx is primary subsystem number.

4. Enter the following command to verify the status of the EIR subsystem.

```
rept-stat-mps
```

0457 - EIR Subsystem normal,card(s) abnormal

One or more of the VSCCP cards do not have an Active status.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
*C 0056.0457      EIR SYSTEM   EIR Subsystem normal,card(s) abnormal
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

Corrective Maintenance

2. Enter the following command to move the VSCCP card to an ACTIVE status if loading is successful:

```
rst-card:loc=xxxx
```

where *xxxx* is the location of the OOS-MT-DSBLD VSCCP card(s) identified in step 1.

3. Enter the following command to verify the status and location of the subsystem cards.

```
rept-stat-mps
```

4. Verify the VSCCP card(s) reset in step 2 are IS-NR. If not, reseal the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

See Appendix A, *Card Removal/Replacement Procedures*.

0458 - EIR Subsystem is available

This message indicates that a problem with the EIR subsystem has been corrected. All VSCCP cards are IS-NR and have an EIR status of Active.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0056.0458      EIR SYSTEM    EIR Subsystem is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0459 - EIR Subsystem is removed

The EIR subsystem is not equipped. No VSCCP cards are configured with the EIR subsystem.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0056.0459      EIR SYSTEM      EIR Subsystem is removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Verify the VSCCP hardware. Configure the EIR system with VSCCP cards.
See Appendix A, *Card Removal/Replacement Procedures*.

0466- STC Network Unavailable

This indicates the network connected to the STC (port A/B) is inaccessible.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0466 ** CARD 1201 STC  STC Network Unavailable
```

Alarm Level: Major

Recovery

Re-association should take place automatically. If it does not, contact the *Customer Care Center*, see page 1-12.

0467- STC Network Available

This indicates the network connected to the STC (port A/B) is now accessible.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
0014.0467      CARD 1201 STC  STC Network Available
```

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0468 - All STC Networks Unavailable

All connections off all the STC cards (port A/B) are inaccessible.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0468 *C EROUTE System All STC Networks Unavailable
```

Alarm Level: Critical

Recovery

Re-association should take place automatically. If it does not, contact the *Customer Care Center*, see page 1-12.

0469- All STC Cards Unavailable

All the STC cards are not accessible.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
*C 0014.0469 *C EROUTE System All STC Cards unavailable
```

Alarm Level: Critical

Recovery

1. Determine if all STC cards are out of service by entering the following command.

```
rept-stat-card
```

2. Reinitialize the STC cards by entering the following command.

```
init-card:appl=eroute
```

3. If the fault has not cleared, reseal each faulty STC card.

 4. If the alarm is not cleared, contact the *Customer Care Center*, see page 1-12.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0470 - EROUTE is Removed

All the STC cards have been deleted.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0470 EROUTE System EROUTE is Removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

0471- EROUTE System is Available

This message indicates that the EROUTE system is available and fully functional.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0471 EROUTE System EROUTE System is Available
```


Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0472 - EROUTE System Threshold Exceeded

The EROUTE system has reached a rate higher than its threshold of 80% capacity.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0472 * EROUTE System EROUTE System Threshold Exceeded
```

Alarm Level: Minor

Recovery

1. Decrease the number of links being monitored until more STC cards are added to the System.
 2. Refer to the *Database Administration Manual - Features* for the correct procedure on adding STC cards.
-

0473 - EROUTE System Capacity Exceeded

The EROUTE system has reached a rate higher than its capacity. There is the possibility of a loss of traffic monitoring.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
** 0014.0473 ** EROUTE System EROUTE System Capacity Exceeded
```

Alarm Level: Major

Recovery

1. Decrease the number of links being monitored until more STC cards are added to the System.
 2. Refer to the *Database Administration Manual - Features* for the correct procedure on adding STC cards.
-

0474 - EROUTE capacity normal, card(s) abnormal

The EROUTE system is operating normally even though one or more card(s) is OOS-MT.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0474 EROUTE System EROUTE capacity normal, card(s) abnormal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the following command to determine which STC cards are out of service.

```
rept-stat-eroute
```

2. Reinitialize each faulty STC card using the following command.

```
init-card:loc=xxxx
```

Where *xxxx* is the location of each faulty card identified in Step 1.

3. If the fault has not cleared, reseal each faulty card.
-

0475 - NTP Time Unavailable

The STC cards are not able to get NTP time from the ESP.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0475 * EROUTE System NTP Time Unavailable
```

Alarm Level: Minor

Recovery

Have the far-end (Sentinel) to verify the status of the time process.

0476- NTP Time Available

The STC cards are now able to get NTP time from the ESP.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0476 EROUTE System NTP Time Available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0477 - Congestion: Copy Function De-activated

The Copy Function on the SS7 cards have been de-activated.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0477 * SLK 1205,A nc00027 Congestion: Copy Function De-activated
              SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: Minor

Recovery

1. Since congestion usually peaks and subsides quickly, a measurements report should be printed to understand what SS7 events took place. Use the command **rept-meas** to obtain a report.

NOTE: The measurements collection must first be turned on so measurements can be collected. If measurements are not turned on, no report will be available. See Chapter 4, "Measurements," for traffic measurements information.

2. Ensure that there are enough links in the linkset based on the traffic load.
-

0478 - Copy Function Activated

The congestion has cleared and the copy function on the SS7 cards have been re-activated.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0478 SLK 1205,A nc00027 Copy Function Activated
          SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

Corrective Maintenance

0479 - Link not Monitored

This is a possible clearing condition for UAM 477, **Congestion: Copy Function Deactivated**. This implies that the Sentinel is not monitoring this link any longer so any monitoring alarms should be cleared.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
0014.0479 SLK 1205,A nc00027 Link not Monitored
          SLC=03 FECLLI=testclli CLASS=SAAL
```

NOTE: The Class parameter in the example is optional.

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0480 - Timestamp Invalid

This indicates that the LIM card timestamp is invalid.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0
* 0014.0480 * CARD 1201 STC Timestamp Invalid
```

Alarm Level: Minor

Recovery

This alarm should clear automatically. If it does not, contact the *Customer Care Center*, see page 1-12.

0481 - Timestamp Valid

This indicates that the LIM card timestamp is valid.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
0014.0467 CARD 1201 STC STC Network Available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0482 - Card(s) have been denied EROUTE service

EROUTE service is being denied service because there is a shortage of STC cards.

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 35.0.0  
** 0014.0482 ** EROUTE System Card(s) have been denied EROUTE service
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the cards that are denied EROUTE service.

Corrective Maintenance

rept-stat-eroute

2. Refer to the *Database Administration Manual - Features* for the correct procedure on adding STC cards.
-

0500 - Alarm being cleared for this device

This is a generic alarm clearing output that applies to all setting alarms (Critical, Major, or Minor). The alarm for the indicated device is being cleared.

Example

```
tekelecstp 99-01-19 14:56:48 EST EAGLE 31.5.0
0045.0500 DLK 1104,A1 Alarm being cleared for this device
```

NOTE: The output can vary significantly. The output varies depending on which device the alarm is being cleared. In this example the alarm is being cleared for a Data Link.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

0514 - Standby MASP inhibited

This message indicates that the standby OAM is inhibited. Database updates will be rejected until the standby OAM is allowed.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0
** 0076.0514 ** CARD 1115 OAM Standby MASP inhibited
```

Alarm Level: Major

Recovery

1. Verify the status of the OAM entering a **rept-stat-card** command.

2. Enter the following command to allow the card:

```
alw-card:loc=xxxx
```

where *xxxx* = card location (1115 or 1113)

3. If the card is restored, you have completed this procedure. If the card is not restored, check and follow the output to correct the problem, then enter the **alw-card** command.

4. If the problem persists, contact the *Customer Care Center*, see page 1-12.

0515 - Standby MASP allowed

This message indicates that the inhibited standby OAM has been restored.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0  
0076.0515 CARD 1115 OAM Standby MASP allowed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0516 - Degraded Mode - 1 card failed

The Measurements Platform subsystem is degraded because one MCPM card is out of service. The Measurements Platform subsystem can successfully complete all of its work, but it has no spare MCPM.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
* 0100.0516 * MEAS SYSTEM   Degraded Mode - 1 card failed
```

Alarm Level: Minor

Recovery

1. Enter the following command to determine the status of the MCPM cards.

```
rept-stat-meas
```

2. Reinitialize the faulty card using the **init-card** command.
-

3. If the fault has not cleared, reseal the faulty card.
-

4. If the fault has not cleared, replace the faulty MCPM card.

See Appendix A, *Card Removal/Replacement Procedures*.

0517 - Degraded Mode - multiple cards failed

The Measurements Platform subsystem is degraded because more than one MCPM card is out of service. The Measurements Platform subsystem can successfully complete all of its work, but may have no spare MCPM.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0517 ** MEAS SYSTEM   Degraded Mode - multiple cards failed
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the status of the MCPM cards.

```
rept-stat-meas
```

2. Reinitialize the faulty card using the **init-card** command.

 3. If the fault has not cleared, reseal the faulty card.

 4. If the fault has not cleared, replace the faulty MCPM card.

 5. Repeat Step 2 through Step 4 for each faulty MCPM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

0518 - Measurements subsystem unavailable

The Measurements Platform subsystem is not available. All MCPM cards are out of service.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
*C 0100.0518 *C MEAS SYSTEM Measurements subsystem unavailable
```

Alarm Level: Critical

Recovery

1. Enter the following command to determine the status of the MCPM cards.
rept-stat-meas

 2. Reinitialize the faulty MCPM card using the **init-card** command.

 3. If the fault has not cleared, reseal the faulty card.

 4. If the fault has not cleared, replace the faulty MCPM card.

 5. Repeat Step 2 through Step 4 for each faulty MCPM card.
See Appendix A, *Card Removal/Replacement Procedures*.
-

Corrective Maintenance

0519 - Measurements subsystem available

This message indicates that the Measurements subsystem has been restored to service.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0  
0076.0519 MEAS SYSTEM Measurements subsystem available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0520 - Frame power usage reached LVL3

Frame power usage reached 98% of threshold value.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0  
*C 0002.0520 *C FRAME CF01 Frame power usage reached LVL3
```

Alarm Level: Critical

Recovery

1. Verify that the Frame Power Threshold value is properly configured for the frame for which UAM is generated using the following command:

```
rtrv-frm-pwr
```

2. Verify that the card population is correct for that particular frame using the following command:

rtrv-stp:display-power

3. Contact the *Customer Care Center*, see page 1-12, about the generated UAM.
-

0521 - Frame power usage reached LVL2

Frame power usage reached 95% but is below 98% of threshold value.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0
** 0002.0521 ** FRAME CF01 Frame power usage reached LVL2
```

Alarm Level: Major

Recovery

1. Verify that the Frame Power Threshold value is properly configured for the frame for which UAM is generated using the following command:

rtrv-frm-pwr

2. Verify that the card population is correct for that particular frame using the following command:

rtrv-stp:display-power

3. Contact the *Customer Care Center*, see page 1-12, about the generated UAM.
-

0522 - Frame power usage reached LVL1

Frame power usage reached 90% but is below 95% of threshold value.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0
* 0002.0521 * FRAME CF01 Frame power usage reached LVL1
```

Alarm Level: Minor

Recovery

1. Verify that the Frame Power Threshold value is properly configured for the frame for which UAM is generated using the following command:

```
rtrv-frm-pwr
```

2. Verify that the card population is correct for that particular frame using the following command:

```
rtrv-stp:display-power
```

3. Contact the *Customer Care Center*, see page 1-12, about the generated UAM.
-

0523 - Frame power usage normal

Frame power usage is normal.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0  
0002.0521 FRAME CF01 Frame power usage normal
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

0524 - REPT-ALMINH: alarm output TIMED inhibit

A device's alarm is Timed inhibited using the **inh-alm** command.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0  
0076.0524 CARD 1115 OAM REPT-ALMINH: alarm output TIMED inhibit
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

0525 - Timed alm inh rdy to expire

Timed inhibition on a device is about to expire in the next 12 hours.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0  
0076.0525 CARD 1115 OAM      Timed alm inh rdy to expire
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

0526 - Service is available

A problem with the specified SCCP service has been corrected. All SCCP cards are IS-NR and have a service status of Active.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 34.3.0  
0056.0526 GFLEX SERVICE Service is available
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

Corrective Maintenance

0527 - Service abnormal

One or more of the cards providing the specified SCCP service do not have a service status of Active.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 34.3.0  
* 0056.0527 * GFLEX SERVICE Service abnormal
```

Alarm Level: Minor

Recovery

1. Enter the following command to verify the status and location of the SCCP service cards:

```
rept-stat-sccp
```

2. Enter the following command to move the SCCP service card to an ACTIVE status if loading is successful:

```
rst-card:loc-xxxx
```

where: *xxxx* is the location of the OOS-MT-DSBLD SCCP card(s) identified in Step 1.

3. Enter the following command to verify the status and location of the SCCP service cards:

```
rept-stat-sccp
```

4. Verify the SCCP card(s) reset in Step 2 are IS-NR. If not, reseal the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

NOTE: See Appendix A, *Card Removal/Replacement Procedures* for card replacement procedures.

0528 - Service is not available

The specified SCCP service is not available. No IS-NR SCCP cards are associated with this specified SCCP service. No SCCP cards providing the specified service have a service status of Active.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 34.3.0
*C 0056.0528 *C GFLEX SERVICE Service is not available
```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status and location of the SCCP service cards:

```
rept-stat-sccp
```

2. Enter the following command to move the SCCP service card to an ACTIVE status if loading is successful:

```
rst-card:loc-xxxx
```

where: *xxxx* is the location of the OOS-MT-DSBLD SCCP card(s) identified in Step 1.

3. Enter the following command to verify the status and location of the SCCP service cards:

```
rept-stat-sccp
```

4. Verify the SCCP card(s) reset in Step 2 are IS-NR. If not, reseal the card(s).
-

5. If any card(s) remain OOS-MT, replace the card(s).

NOTE: See Appendix A, *Card Removal/Replacement Procedures* for card replacement procedures.

Corrective Maintenance

0529 - Service is disabled

The specified SCCP service has been manually disabled with the **chg-sccp-serv** command. All IS-NR cards providing the service have service status of Offline.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 34.3.0
*C 0056.0529 *C GFLEX SERVICE Service is disabled
```

Alarm Level: Critical

Recovery

1. Enter the following command to verify the status and location of the SCCP service cards:

```
rept-stat-sccp
```

2. Enter the following command to change the state of the SCCP service status to on-line:

```
chg-sccp-serv:serv-xxxx:state=online
```

where: *xxxx* is the SCCP service name.

3. Enter the following command to verify the status of the SCCP service cards:

```
rept-stat-sccp
```

0530 - Service is removed

The specified SCCP service is not equipped. No SCCP cards are configured with the service.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 34.3.0
0056.0530 GFLEX SERVICE Service is removed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Verify the SCCP hardware. Configure the specified service with SCCP cards.

NOTE: See Appendix A, *Card Removal/Replacement Procedures* for card replacement procedures.

0531 - Insufficient HW Copy Function Inhibited

HIPR cards must be installed in the same shelf as the IPLIMx and IPGWx card if their links are monitored. Therefore, monitoring will be inhibited on links on IPLIMx or IPGWx cards if a HIPR card is not installed in the same shelf. This is accomplished by ignoring an EMP service accept message after a service request is sent when HIPR cards are not installed. In addition, any active EMP TCP connections on an IPLIM or IPGW link is disconnected if both HIPR cards in the same shelf are removed. A new minor link alarm is implemented to report when monitoring on a link has been inhibited in this manner.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0
*0044.0531 *SLK 1201,A lsnabcde Insufficient HW Copy Function Inhibited
```

Alarm Level: Minor

Recovery

Replace the HMUX cards in the same shelf as the IPLIMx or IPGWx cards that produced the alarm with HIPR cards.

NOTE: See Appendix A, *Card Removal/Replacement Procedures* for card replacement procedures.

0532 - RTX is allowed

A previous fault is corrected and the EAGLE 5 ISS system can send traffic to the specified DPC using the exception route set identified by the specified class and criterion.

Corrective Maintenance

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0
0044.0532 RTX 001-101-001 RTX is allowed
ILSN=lsn012345
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

0533 - RTX is restricted

A transfer-restricted message has been received concerning the exception route set. Possible causes are as follows:

- One or more routes in this exception route set are unavailable.
- A low priority route is carrying the traffic. The primary and combined routes are not available for traffic in this exception route set.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0
* 0044.0533 * RTX 001-101-001 RTX is restricted
ILSN=lsn012345
```

Alarm Level: Minor

Recovery

1. Enter the following command using the DPC and RTX exception class specified in the output message to determine which linkset has a problem:

```
rept-stat-rtx:dpc=aaaa=xxx-xxx-xxx:cccc=zzzz
```

where

- *aaaa* = **dpc/dpca, dpci, dpcn, or dpcn24**
- *xxx-xxx-xxx* = the specified destination point code

- *cccc* = *opc/opca, opci, opcn, opcn24, ilsn, cic*, or *si*
 - *zzzz* = the specified value of the above exception class, that establishes the exception routing criterion
-

2. Enter the following command using the linkset name specified from the output of Step 1 to determine which link(s) could have a problem:

```
rept-stat-ls
```

3. Use local procedures to test the link facilities.
-

0534 - RTX is prohibited

Traffic to the DPC through this exception route set is prohibited. Possible causes are as follows:

- All routes in this exception route set are unavailable.
- Adjacent point code link failures or nonadjacent failure exist in the route.

Example

```
RLGHNCXA3W 00-11-06 10:55:49 EST EAGLE 35.0.0
*C 0044.0534 *C RTX 001-101-001 RTX is prohibited
      ILSN=lsn012345
```

Alarm Level: Critical

Recovery

1. Enter the following command using the DPC and RTX class/criterion specified from the output message to determine which linkset has a problem:

```
rept-stat-rtx:dpc=<dpc>:<class>=<criterion>
```

2. Enter the following command using the linkset name specified from the output of Step 1 to determine which link(s) could have a problem:

```
rept-stat-ls
```

3. Use local procedures to test the link facilities.
-

0535 - IP Connection Restricted

The following two scenarios exist:

- The SCTP association is established and the SCTP far-end is multi-homed and the Eagle determines one or more far-end IP destinations for the association are unreachable.
- The SCTP association is established and the SCTP far-end is uni-homed and the SCTP near_end has an LHOST and an ALHOST configured.

NOTE: IP Connection UAMs 0086 (Congested), 0535 (Restricted), and 0536 (Excess Retransmits) conditions can occur simultaneously. However, only one alarm per device can be displayed at a time. If two or more are present, the display of these alarms is prioritized as follows:

- 0086 - IP Connection Congested
- 0536 - IP Connection Excess Retransmits
- 0535 - IP Connection Restricted

Example

```
RLGHNCXA21W 00-12-07 12:01:43 EST EAGLE 31.3.0
* 0014.0535 * IP7 assoc1 IP Connection Restricted
```

Alarm Level: Minor

Recovery

1. Determine why the other end is unreachable (i.e., is a cable pulled?). All connections at the far end need to be reachable. Once they are the alarm will clear – IP Connection Available.
 2. Reconfigure the association to be either both ends uni-homed or both ends multi-homed and make sure all connections are reachable.
-

0536 - IP Connection Excess Retransmits

An SCTP association has excessive retransmissions. The retransmission errors may cause a connection to congest and fail in the presence of a sufficiently high load.

NOTE: IP Connection UAMs 0086 (Congested), 0535 (Restricted), and 0536 (Excess Retransmits) conditions can occur simultaneously. However, only one alarm per device can be displayed at a time. If two or more are present, the display of these alarms is prioritized as follows:

- 0086 - IP Connection Congested
- 0536 - IP Connection Excess Retransmits
- 0535 - IP Connection Restricted

Example

```
RLGHNCXA21W 06-12-07 12:01:43 EST EAGLE 35.6.0  
1111.0536 * IP7 assoc1234567890 IP Connection Excess Retransmits
```

Alarm Level: Minor

Recovery

This error may be due to configuration problem, packet loss or excessive round-trip times.

1. Use the following **pass** commands to aid in determining the cause of the error:
 - **sctp** - gives how many retransmits are occurring
 - **assocrtt** - gives round-trip time information on a per-association basis
 - **netstat** - gives information on interface and per-protocol statistics (IP, SCTP and others)
 - **ping** - gives information on reachability and round-trip times

2. If the error is due to configuration problems, correct the configuration.

3. If the number of retransmissions is within expected values, the alarm threshold can be changed.

NOTE: Changing the threshold does not affect link traffic, it only affects the alarm trigger level.

- a. Use the `rtrv-assoc:aname=xxxx` command to determine the current retransmit threshold (RTXTHR) value.
- b. Use the `chg-assoc:aname=xxxx` command to change the retransmit threshold (RTXTHR) value. Increasing the value will make the alarm less likely to occur.

Refer to the *Commands Manual* for additional information.

0537 - Ethernet error threshold exceeded

An Ethernet interface experiences excessive errors at the physical layer, such as CRC or framing errors.

Example

```
RLGHNCXA21W 06-12-07 12:01:43 EST EAGLE 35.6.0
** 2315.0537 ** ENET 1201,B Ethernet error threshold exceeded
```

Alarm Level: Major

Recovery

This error may be due to faulty hardware or configuration problems, such as a duplex mismatch where one end is full-duplex and the other is half-duplex or auto-negotiated to half-duplex, and can cause a connection to fail.

1. Use the `netstat -d 0` command to determine if a duplex configuration mismatch exists.

2. If the error is due to configuration problems, correct the configuration.

3. If duplex onfiguration is not the cause, other possible configuration or hardware errors (including cables) at both ends of the connection may be at fault.

0538 - Ethernet error threshold cleared

A problem with the Ethernet error threshold has been corrected.

Example

```
RLGHNCXA21W 06-12-07 12:01:43 EST EAGLE 35.6.0
2359.0538 ENET 1201,B Ethernet error threshold cleared
```

Alarm Level: No alarm condition. The message is informational.

Recovery

This message indicates that a problem with the Ethernet error threshold has been cleared.

0539 - Ethernet Interface Down

An Ethernet interface is reporting that it is down.

Example

```
RLGHNCXA21W 06-12-07 12:01:43 EST EAGLE 35.6.0
2359.0539 ENET 1201,B Ethernet Interface Down
```

Alarm Level: Major

Recovery

An Ethernet interface is provisioned (**rtrv-ip-lnk** reports a non-zero IP address and the card on which the Ethernet resides is in service), but the interface is reporting that it is down.

0540 - Ethernet Interface Up

A problem with the Ethernet interface has been corrected.

Example

```
RLGHNCXA21W 06-12-07 12:01:43 EST EAGLE 35.6.0
2359.0540 ENET 1201,B Ethernet Interface Up
```

Alarm Level: No alarm condition. The message is informational.

Recovery

This message indicates that a problem with the Ethernet interface has been cleared.

0541 - MSU cksum error threshold exceeded

One or more MSU checksum validation errors have been reported by a LIM or SCCP card during internal card integrity checks.

A LIM or SCCP card has reported a checksum validation failure for a MSU received from another card. The failure may be due to a hardware problem or other issue affecting the data transfer path on a particular card. It may indicate a problem with data corruption in an MSU sent to or received from another card.

The alarm is raised when a checksum validation failure occurs during internal card integrity checks. It remains active in the system until the Run-Time Diagnostic subsystem (RTD) statistics are reset and no further indications of MSU checksum validation failures are reported.

Example

```
RLGHNCXA21W 06-12-07 12:01:43 EST EAGLE 35.6.0
** 2315.0541 ** RTD SYSTEM MSU cksum error threshold exceeded
```

Alarm Level: Critical.

Recovery

Contact the *Customer Care Center*, see page 1-12, for instructions on clearing the alarm and monitoring the system for further indications of checksum validation failures.

0542 - MSU cksum error threshold cleared

The MSU checksum threshold exceeded alarm has been corrected.

Example

```
RLGHNCXA21W 06-12-07 12:01:43 EST EAGLE 35.6.0
2359.054238 RTD SYSTEM MSU Cksum error threshold cleared
```

Alarm Level: No alarm condition. The message is informational.

Recovery

This message indicates that the MSU checksum threshold exceeded alarm has been cleared.

0901 - Card DB load timeout, check GLS card

This message indicates that the database of a card has been in a transition for 9 minutes. The database gets put into transition when it waits for updates. In this case the updates are from the GLS card.

Example

```
RLGHNCXA3W 99-12-06 10:55:49 EST EAGLE 35.0.0
** 0076.0901 ** CARD 1201 SS7ANSI Card DB load timeout, check GLS card
```

Alarm Level: Major

Recovery

1. The GLS card should not take this long. Make sure that the GLS card is IS-NR by doing a **rept-stat-card** command.

 2. Enter the following command to boot the GLS card:

```
init-card:appl=glS
```

 3. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

0902 - Card DB is stable

This message indicates that the database of a card was in transition but has recovered.

Example

```
RLGHNCXA3W 99-12-06 10:56:18 EST EAGLE 35.0.0  
0104.0902 CARD 1201 SS7ANSI Card DB is stable
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is needed.

0903 - IP Link A is down

This message indicates that an IP application socket is out of service due to a IP link down (ethernet problem) or due to the signaling link being deactivated.

Example

```
RLGHNCXA03W 01-01-10 16:28:08 EST EAGLE 35.0.0  
** 0046.0903 ** CARD 1111 EBDADCM IP Link A is down
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the IP address of the link:

```
rtrv-ip-lnk:loc=xxxx:port=a
```

Where *xxxx* is the card identified in the alarm output.

2. Enter the following command to retrieve the name of the local host:

```
rtrv-ip-host:ipadr=xxxx.xxx.xxx.xxx
```

Where *xxxx.xxx.xxx.xxx* = the link IP address from Step 1.

3. Enter the following command to get the name of the remote host:

```
rtrv-appl-sock:lhost=xxxxxxxx
```

Where *xxxxxxxx* = local host name from Step 2.

4. Enter the following command to test the TCP/IP connection:

```
pass:loc=xxxx:cmd="ping yyyyyyyyyy"
```

Where: *xxxx* = Card location from the alarm output.

yyyyyyyyyy = logical name of the remote host from Step 3.

5. If the **ping** command fails, perform the following checks:

- Check the remote host hardware and software.
 - Use your company procedures to check the network.
 - Check cable connections at the IP⁷ Secure Gateway and at the remote host.
-

6. If the UNAVAIL REASON still indicates an alignment problem, enter the following command:

```
rept-stat-slk:loc=xxxx:port=a
```

Where *xxxx* is the card identified in the alarm output.

If the DCM card is not OOS-MT, proceed to Step 8.

7. If the DCM card is OOS-MT, do the following, using the **rept-stat-card** command to check for card IS-NR state after each action:

- a. Reinitialize card using the **init-card** command
- b. Reseat the card
- c. Replace the card

Corrective Maintenance

See Appendix A, *Card Removal/Replacement Procedures*.

8. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.
-

0904 - IP Link A is up

This indicates that a previously broken link between the DCM card and the OAP now exists and is functioning properly.

Example

```
RLGHNCXA03W 01-01-10 16:28:08 EST EAGLE 35.0.0  
0046.0904 CARD 1111 EBDADCM IP Link A is up
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0905 - IP Link B is down

This message indicates that an IP application socket is out of service due to a IP link down (ethernet problem) or due to the signaling link being deactivated.

Example

```
RLGHNCXA03W 01-01-10 16:28:08 EST EAGLE 35.0.0  
** 0046.0905 ** CARD 1111 EBDADCM IP Link B is down
```

Alarm Level: Major

Recovery

1. Enter the following command to determine the IP address of the link:

```
rtrv-ip-lnk:loc=xxxx:port=b
```

Where *xxxx* is the card identified in the alarm output.

2. Enter the following command to retrieve the name of the local host:

```
rtrv-ip-host:ipadr=xxxx.xxx.xxx.xxx
```

Where *xxxx.xxx.xxx.xxx* = the link IP address from Step 1.

3. Enter the following command to get the name of the remote host:

```
rtrv-appl-sock:lhost=xxxxxxxx
```

Where *xxxxxxxx* = local host name from Step 2.

4. Enter the following command to test the TCP/IP connection:

```
pass:loc=xxxx:cmd="ping yyyyyyyyyy"
```

Where: *xxxx* = Card location from the alarm output.

yyyyyyyyyy = logical name of the remote host from Step 3.

5. If the **ping** command fails, perform the following checks:

- Check the remote host hardware and software.
 - Use your company procedures to check the network.
 - Check cable connections at the IP⁷ Secure Gateway and at the remote host.
-

6. If the UNAVAIL REASON still indicates an alignment problem, enter the following command:

```
rept-stat-slk:loc=xxxx:port=b
```

Where *xxxx* is the card identified in the alarm output.

If the DCM card is not OOS-MT, proceed to Step 8.

7. If the DCM card is OOS-MT, do the following, using the **rept-stat-card** command to check for card IS-NR state after each action:

- a. Reinitialize card using the **init-card** command
- b. Reseat the card
- c. Replace the card

See Appendix A, *Card Removal/Replacement Procedures*.

8. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.
-

Corrective Maintenance

0906 - IP Link B is up

This indicates that a previously broken link between the DCM card and the OAP now exists and is functioning properly.

Example

```
RLGHNCXA03W 01-01-10 16:28:08 EST EAGLE 35.0.0  
0046.0906 CARD 1111 EBDADCM IP Link B is up
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0907 - HW limiting TPS rate alarm cleared

This message indicates that the alarm condition, specified by message “0908 - HW cannot support purchased TPS rate,” has been cleared.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 5.0.0-32.0.0  
0100.0907 CARD 1101 SS7IPGW HW limiting TPS rate alarm cleared  
ASSY SN: 102199815a1234
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

0908 - HW cannot support purchased TPS rate

This message indicates that the purchased transactions per second (TPS) rate running on the DCM(s) is higher than can be supported by you current hardware.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 5.0.0-32.0.0
** 0100.0908 ** CARD 1101 SS7IPGW HW cannot support purchased TPS rate
      ASSY SN: 102199815a1234
```

Alarm Level: Major

Recovery

-
1. Upgrade your DCM hardware. This alarm can be cleared only when the concerned DCM hardware is unplugged.
-
2. Contact the *Customer Care Center*, see page 1-12, for information about upgrading your DCM hardware.
-

0911 - Dynamic database is inconsistent

The dynamic database audit has detected that checksums are inconsistent. This means that one or more cards do not concur with the current network configuration.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
** 0100.0911 ** SYSTEM      Dynamic database is inconsistent
```

Alarm Level: Major

Recovery

The Eagle cannot automatically determine which cards are inconsistent. Contact the *Customer Care Center*, see page 1-12.

Corrective Maintenance

0912 - Dynamic database is now consistent

The dynamic database audit has run and determined that the checksums are consistent.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.0912 SYSTEM Dynamic database is now consistent
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates a previous fault has been corrected. No further action is necessary.

1000 - MTP rcvd UPU - user part is not SCCP

The system forwarded a unit data (UDT) message to a distant node that does not support SCCP. In response, the distant node sent back a user part unavailable (UPU) message.

The message provides the affected point code (which sent the UPU), as well as the service information octet (SIO) field of the message and the cause code.

All fields are in decimal values. The SIO field values applicable to this message are:

03 – SCCP

04 – Telephone User Part (TUP)

05 – ISDN User Part (ISUP)

06 – Data User Part (call and circuit related messages)

07 – Data User Part (facility registration and cancellation)

08 – MTP Testing User Part

The message also provides the value for the User Part that was unavailable (UPU=). The values shown above apply to this field as well.

The Cause Codes (Unavail Cause =) applicable to this message are:

000 – Unknown

001 – Unequipped Remote User

002 – Inaccessible User Part

Unequipped remote user indicates the distant node is not equipped for SCCP. Inaccessible user part indicates that the distant node is equipped with SCCP capability, but there has been a failure in SCCP making it impossible to handle messages sent to it by MTP.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1000 CARD 1201,A INFO MTP rcvd UPU - user part is not SCCP
SIO=03 OPC=003-232-000 DPC=001-004-000
AFTPC=004-000-001 UPU=03 UNAVAIL CAUSE=001
LSN=A1234567
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1001 - MTP rcvd Transfer Controlled (TFC)

The system is generating traffic for a remote node that is congested. The distant node sent a transfer controlled (TFC) message in response.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1001 CARD 1201,A INFO MTP rcvd Transfer Controlled (TFC)
SIO=0a OPC=003-232-000 DPC=000-000-000
AFTPC=004-000-000 CONG STATUS=000
LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

CONG STATUS. Congestion status

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

Corrective Maintenance

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. The affected point code field of the output message identifies the node that is congested. The system discards MSUs with a priority lower than the congestion status value sent with the TFC.

2. The system sends only messages with a priority higher or equal to the congestion status value of the TFC. Refer to *TR-NPT-000246, Issue 2, June 1987, Chapter 1.111.5, Annex A* for priority assignments.

3. Contact the far-end to determine the reason for congestion.

1002 - MTP rcvd invalid TFC - status 0

The EAGLE 5 ISS system received a transfer controlled (TFC) message with a status of 0 (protocol violation). No action on the part of the EAGLE 5 ISS system has been taken.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1002 CARD 1205,B INFO MTP rcvd invalid TFC - status 0
SIO=0a OPC=003-234-000 DPC=000-024-000
AFTPC=055-000-046 CONG STATUS=000
LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

CONG STATUS. Congestion status

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. The EAGLE 5 ISS system does not take any action based on this TFC message. The output above is provided only to indicate the event took place, but does not require any action by maintenance personnel.
 2. Contact the far-end to determine the reason for congestion.
-

1003 - MTP rcvd invalid H0/H1 code

SS7 received a level 3 message with an unrecognized H0H1 code.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1003    CARD 1205,B  INFO  MTP rcvd invalid H0/H1 code
              SIO=0a   OPC=003-235-000  DPC=000-024-000
              H0H1=43
              LSN=A1234567

```

Legend

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This message could indicate that the MTP restart feature is not enabled. If the MTP restart feature should be enabled, use the **chg-feat** to turn on the MTP restart feature.

NOTE: Once the feature is enabled using the `chg-feat` command, it can not be turned off. Contact the *Customer Care Center*, see page 1-12, before executing the `chg-feat` command.

2. This output is informational only. The SS7 traffic is not interrupted and service is not affected.
-
3. Contact the far-end to determine the reason for congestion.
-

1004 - MTP rcvd unknown DPC

The EAGLE 5 ISS system received an MSU with a DPC that is not in the routing table.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1004 CARD 1205,B INFO MTP rcvd unknown DPC
SIO=0a OPC=003-236-000 DPC=000-071-000
LSN=A1234567
```

Legend

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the EAGLE 5 ISS system should be able to route to the DPC (indicated in the message output), add the DPC to the EAGLE 5 ISS system routing table using the `ent-rte` and `ent-dstn` commands.
-
2. If the DPC is not one that the EAGLE 5 ISS system should be able to route to, no action is necessary.
-

1005 - GWS rcvd OPC that is not allowed

This message indicates the EAGLE 5 ISS received an MSU with an origination point code (OPC) that is not allowed in gateway screening (GWS).

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1005 CARD 1205,A INFO GWS rcvd OPC that is not allowed
SIO=b2 OPC=003-237-000 DPC=003-003-003
H0H1=32 AFTPC=03-03-03
SR=osp3 LSN=A1234567

```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

Corrective Maintenance

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this origination point code (OPC) is one that should be allowed to pass through the network, add the OPC to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **ent-scr-opc** command to add the OPC to the list of allowed OPC codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on how to add an OPC to gateway screening (GWS).
 2. If the OPC should not be allowed to pass through the network, no action is necessary.
-

1006 - GWS rcvd DPC that is not allowed

This message indicates the EAGLE 5 ISS received an MSU with a destination point code (DPC) that is not allowed in gateway screening (GWS).

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1006 CARD 1205,A INFO GWS rcvd DPC that is not allowed
SIO=b2 OPC=003-237-000 DPC=003-003-003
HOH1=23 AFTPC=03-03-03
SR=osp3 LSN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this destination point code (DPC) is one that should be allowed to pass through the network, add the DPC to the gateway screening (GWS) tables assigned to the link reporting this message. Use the `ent-scr-dpc` command to add the DPC to the list of allowed DPC codes. Refer to the *Database Administration Manual- Gateway Screening* for instructions on adding a DPC to gateway screening (GWS).
 2. If the DPC should not be allowed to pass through the network, no action is necessary.
-

Corrective Maintenance

1007 - GWS rcvd OPC that is blocked

This message indicates the EAGLE 5 ISS received an MSU from an origination point code (OPC) that is blocked from this network by gateway screening (GWS).

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1007 CARD 1205,A INFO GWS rcvd OPC that is blocked
SIO=93 OPC=001-001-004 DPC=003-003-003
H0H1=31 AFTPC=03-03-03
SR=osp3 LSN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this origination point code (OPC) should be allowed to send messages through the network, use the command **dlt-scr-blkopc** to delete the OPC from the blocked OPC screen set assigned to this link.

2. If this OPC should be blocked from entering this network, no further action is necessary.

1008 - GWS rcvd DPC that is blocked

This message indicates the EAGLE 5 ISS received an MSU from a destination point code (DPC) that is blocked from this network by gateway screening (GWS).

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1008 CARD 1205,A INFO GWS rcvd DPC that is blocked
SIO=b2 OPC=007-008-000 DPC=003-003-003
H0H1=32 AFTPC=03-03-03
SR=osp3 LSN=A1234567

```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

Corrective Maintenance

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this destination point code (DPC) should be allowed to send messages through the network, use the command `dlt-scr-blkdpc` to delete the DPC from the blocked DPC screen set assigned to this link.
 2. If this DPC should be blocked from entering this network, no further action is necessary.
-

1009 - GWS rcvd SIO that is not allowed

This message indicates that gateway screening (GWS) has discarded an MSU that is not allowed in the network.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1009 CARD 1205,B INFO GWS rcvd SIO that is not allowed
SIO=b2 OPC=003-237-000 DPC=003-003-003
```

H0H1=33 AFTPC=03-03-03
SR=osp3 LSN=A1234567

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This indicates that a MSU was discarded because it failed screening. No action is necessary, unless the MSU should have passed. If the MSU should have passed (verified by the fields displayed in the above message), go to Step 2.
 2. Using the **rtrv-scr-sio** command, verify that the screening reference specified in the above message does not allow MSUs with the *SI/H0/H1* values indicated.
 3. If the MSU should have passed screening, use the **ent-scr-sio** command to add the si data to the screening reference assigned to this link.
-

1010 - GWS rcvd a priority that is not allowed

This message indicates gateway screening (GWS) has discarded an MSU because the priority is listed as one that is not allowed in this network.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1010 CARD 1205,A INFO GWS rcvd a priority that is not allowed
SIO=0a OPC=003-242-000 DPC=000-071-000
H0H1=54 AFTPC=03-03-03
SR=osp3 LSN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H11. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This indicates that a MSU was discarded because it failed screening. No action is necessary, unless the MSU should have passed. If the MSU should have passed (verified by the fields displayed in the above message), go to Step 2.

2. Using the `rtrv-scr-sio` command, verify that the screening reference specified in the above message does not allow MSUs with the priority value indicated.

3. If the MSU should have passed screening, use the `chg-scr-sio` command to add the `pri` data to the screening reference.

1011 - GWS rcvd TFC, AFTPC not in routing tbl

This indicates that a transfer controlled message was received by a gateway link and failed screening because of an affected point code value in the message.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
```

Corrective Maintenance

```
0100.1011    CARD 1105,B  INFO    GWS rcvd TFC, AFTPC not in routing tbl
              SIO=0a    OPC=003-243-000  DPC=000-024-000
              H0H1=35   AFTPC=099-099-003
              SR=osp3   LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.

2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.

1012 - GWS rcvd Clg Party that is not allowed

This indicates an MSU was received on a gateway link but failed screening because of the SCCP calling party address.

Example 1 (non-SCMG)

```
RLGHNCXA21W 00-04-18 18:59:23 EST  EAGLE 31.3.0
0101.1012    CARD 1205,B1  INFO    GWS rcvd Clg Party that is not allowed
              SIO=0a    OPC=003-244-000  DPC=000-071-000
              SCCP MT=  18
```

```

CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=ABCDEF1234567890ABCDE
SR=scrbl      LSN=A1234567
  
```

Example 2 (SCMG)

```

RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 31.3.0
0102.1012 CARD 1205,B1 INFO GWS rcvd Clg Party that is not allowed
SIO=03 OPC=003-245-000 DPC=001-004-000
SCMG: TYPE=000 AFTPC=003-003-003
      MULT=000 AFTSS=005
SR=scrbl LSN=A1234567
  
```

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This output indicates that a SCCP message was discarded because it failed screening. No action is necessary, unless the message should have passed. If the message should have passed (verified by the fields displayed in the above message), continue with Step 2.
 2. Using the **rtrv-scr-cgpa** command, verify that the screen name specified in the output does not allow SCCP messages. Check the following fields in the output:
 - For non-SCMG messages, check the SCCP MT, SSN, and OPC
 - For SCMG messages, check the TYPE, AFTSS, and AFTPC (or OPC if the AFTPC is not present)
 3. If the SCCP message should have passed screening, use the **ent-scr-cgpa** or **chg-scr-cgpa** command to add the appropriate information to the screening reference.
-

1013 - GWS rcvd Cld Party that is not allowed

This indicates an MSU was received on a gateway link but failed screening because of the called party value in the SCCP called party address field.

Example

The following is an output example when an SCCP management message, such as SSP, SST, SSA or SSC, generates this UIM.

```
RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 35.0.0
0102.1013 CARD 1205,B INFO GWS rcvd Cld Party that is not allowed
SIO=03 OPC=003-245-000 DPC=001-004-000
SCMG: TYPE=000 AFTPC=003-003-003
MULT=000 AFTSS=005
SR=scrib LSN=A1234567
Report Date:06-09-13 Time:00:13:22
```

The following is an output example when an SCCP report message, such as UDT, UDTS, or XUDT, generates this UIM.

```

RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 35.0.0
0185.1005 CARD 1101,A2 INFO GWS rcvd OPC that is not allowed
SIO=03 OPC=007-021-067 DPC=005-022-019
SCCP MT=018
CDPA: AI=05 PC=005-006-007 SSN=006 TT=007
ADDR=0
CGPA: AI=14 PC=015-016-017 SSN=022 TT=023
ADDR=9194603655
SR=scr1 LSN=ABCD123
Report Date:02-07-21 Time:16:20:19

```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This output indicates that a SCCP message was discarded because it failed screening. No action is necessary, unless the message should have passed. If the message should have passed (verified by the fields displayed in the above message), go to Step 2.

2. Using the **rtrv-scr-cdpa** command, verify that the screening reference specified in the above message does not allow SCCP messages with the called party address indicated.

3. If the SCCP message should have passed screening, use the **ent-scr-cdpa** command to add the called party address to the screening reference.
-

1014 - GWS rcvd Translation Type not allowed

This indicates an MSU requiring global title was received on a gateway link but failed screening because of the translation type indicated in the message.

Example

```
RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1014 CARD 1205,B INFO GWS rcvd Translation Type not allowed
SIO=0a OPC=003-244-000 DPC=000-071-000
SCCP MT= 18
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=ABCDEF1234567890ABCDE
SR=scrib LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This output indicates that an MSU requiring global title translation was discarded because it failed screening. No action is necessary, unless the message should have passed. If the message should have passed (verified by the fields displayed in the above message), go to Step 2.

2. Using the **rtrv-scr-tt** command, verify that the screen name specified in the above message does not allow MSUs with the translation type indicated.

3. If the MSU should have passed screening, use the **ent-scr-tt** command to add the translation type to the screening reference.

1015 - GWS rcvd SCMG with not allowed AFTPC

This message indicates that an SCCP management message (SCMG) was received on a gateway link and failed gateway screening because of the affected point code.

Example

```

RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 31.3.0
0102.1015    CARD 1205,B  INFO   GWS rcvd Cld Party that is not allowed
              SIO=03    OPC=003-245-000  DPC=001-004-000
              SCMG:    TYPE=000  AFTPC=003-003-003
                      MULT=000  AFTSS=005
              SR=scrib  LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This output indicates that an SCCP management message was discarded because it failed screening. No action is necessary, unless the message should have passed. If the message should have passed (verified by the fields displayed in the above message), go to Step 2.
 2. Using the `rtrv-scr-aftpc` command, verify that the screening reference specified in the above message does not allow SCCP management messages with the affected point code indicated.
 3. If the message should have passed screening, use the `ent-scr-aftpc` command to add the affected point code to the screening reference.
-

1016 - MTP Adj PC not in routing table

This message indicates that an MSU was received with an adjacent point code not found in the EAGLE 5 ISS routing table.

Example

```
RLGHNCXA21W 00-11-18 19:12:00 EST EAGLE 35.0.0
0147.1016 CARD 1201,A INFO MTP Adj PC not in routing table
          OPC=001-001-001 CPC=002-002-002
          LSN=lsn01a
```

Legend

CPC. Capability point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This output indicates that an MSU was discarded because the DPC did not appear in the system linkset table. Network messages are valid only from adjacent point codes.
-
2. If the MSU should have passed screening, use the **chg-scr-sio** command to add the pri data to the screening reference.
-

1017 - MTP Message Received for Network 255

This message indicates that the network routing feature is on and the EAGLE 5 ISS has detected network management messages concerning network 255. The network routing feature cannot be used when the EAGLE 5 ISS is used with network 255.

Example

```

RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1017 CARD 1201,A INFO MTP Message Received for Network 255
      SIO=08 OPC=003-247-000 DPC=002-000-000
      DATA=12 34 56 78 90 12 34 56 78 90 12 34
              56 78 90 12 34 56 78 90 12 34 56 78
      SR=osp3 LSN=A1234567

```

Legend

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message is an indication serious network management problems. Contact the *Customer Care Center*, see page 1-12.

1018 - REPT-MTPERR: MTP rcvd invalid SIO

A MSU is discarded when the EAGLE 5 ISS is unable to perform MTP-level routing.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 31.3.0
0140.1018 CARD 1201,A INFO REPT-MTPERR: MTP rcvd invalid SIO
          SIO=07 OPC=001-001-001 DPC=002-002-002
          LSN=A1234567
```

Legend

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This indicates that a MSU was discarded because of an undefined point code or an invalid SIO. This message is displayed only when the total number of discarded SIOs is less than a specified limit over a specified period time. No action is necessary, unless the MSU should have passed. If the MSU should have passed (verified by the fields displayed in the above message), go to Step 2
 2. Using the **rtrv-scr-sio** command, verify that the screening reference specified in the above message does not allow MSUs with the value indicated.
-

3. If the MSU should have passed screening, use the **chg-scr-sio** command to add the appropriate data to the screening reference.
-
4. If the SIO is not one that the EAGLE 5 ISS should be able to route to, no action is necessary.
-

1019 - SCCP rcvd invalid UDTS/XUDTS msg

SCCP received a user data service (UDTS)/extended user data service (XUDTS) message from the network that was discarded because of an invalid message type indicator.

Example

```

RLGHNCXA21W 00-04-18 19:00:05 EST EAGLE 31.3.0
0106.1019   CARD 1103,A  INFO  SCCP rcvd invalid UDTS/XUDTS msg
           SIO=03   OPC=003-251-000  DPC=001-004-000
           CDPA:  SSN=005   TT=250
           CGPA:  SSN=000   TT=000
           RETURN CAUSE=001
           DATA=26 80 03 09 0e 06 09 00 fe 08 50 55 05
                43 00 00 00 00 00
           LSN=A1234567

```

Legend

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

RETURN CAUSE. Identifies the reason for the returned message (for connectionless protocols)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a UDTS/XUDTS message that was discarded because the message type field contained a value invalid in the system. No action is necessary.

NOTE: The UDTS/XUDTS message is used in the SCCP protocol to indicate an error in a UDT message. The UDT was sent to another node, an error was found, and the UDTS/XUDTS message was returned with the following fields:

- Message type
 - Return cause
 - Called party address
 - Calling party address
 - Data
-

1020 - SCCP rcvd invalid XUDT msg

SCCP received an extended unit data message (XUDT) from the network that was discarded because of an invalid message type indicator.

Example

```
RLGHNCXA21W 00-04-18 19:00:11 EST EAGLE 31.3.0
0107.1020 CARD 1103,A INFO SCCP rcvd invalid XUDT msg
SIO=0a OPC=003-252-000 DPC=000-071-000
CDPA: SSN=005 TT=250
CGPA: SSN=000 TT=000
RETURN CAUSE=001
DATA=26 80 03 09 0e 06 09 00 fe 08 50 55 05
      43 00 00 00 00 00
LSN=A1234567
```

Legend

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

RETURN CAUSE. Identifies the reason for the returned message (for connectionless protocols)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a XUDT/LUDT message that was discarded because the message type field contained a value invalid in the system. No action is necessary.

NOTE: The XUDT message is the same as an UDT. The XUDT provides additional information, such as the hop counter.

1021 - SCCP rcvd invalid XUDTS msg

SCCP received an extended unit data service (XUDTS) message from the network that was discarded because of an invalid message type.

Example

```

RLGHNCXA21W 00-04-18 19:01:03 EST EAGLE 31.3.0
0108.1021    CARD 1103,A  INFO  SCCP rcvd invalid XUDTS msg
              SIO=0a   OPC=003-253-000  DPC=000-001-000
              CDPA:  SSN=005   TT=250
              CGPA:  SSN=000   TT=000
              RETURN CAUSE=001
              DATA=26 80 03 09 0e 06 09 00 fe 08 50 55 05
                   43 00 00 00 00 00
              LSN=A1234567

```

Legend

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

Corrective Maintenance

OPC. Origination point code

RETURN CAUSE. Identifies the reason for the returned message (for connectionless protocols)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a XUDTS message that was discarded because the message type field contained a value invalid in the system. No action is necessary.

NOTE: The XUDTS message is used in the SCCP protocol to indicate an error in a XUDT message. The XUDT was sent to another node, an error was found, and the XUDTS message was returned with the following fields:

- Message type
 - Return cause
 - SCCP hop counter
 - Called party address
 - Calling party address
 - Data
 - ISNI
 - Segmentation
-

1022 - System Meas. limit exceeded for LSONISMT

This UIM alarm is issued when the either of these limits is exceeded:

- Maximum of 3000 LSONISMT measurements, or
- Maximum of 100 ISUP message type measurements per linkset.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 31.3.0
0140.1022 SYSTEM INFO System Meas. limit exceeded for LSONISMT
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. Each link in a linkset collects measurements for 100 ISUP message type measurements. Only the first 100 types collected per linkset are reported. Those links that are not reported in the LSONISMT Report have their counts added to the totals in the LSORIGNI Gateway Report and the STP Report (MSUDSCRD field).
-
2. If the system total exceeds 3000, only the first 3000 collected are reported in the LSONISMT Gateway Report. Any counts not included in this report are added to the totals in the LSORIGNI Gateway Report and the STP Report (MSUDSCRD field).
-

1023 - SCCP rcvd unknown msg type

SCCP received a message from the network that was discarded because of an unknown message type indicator.

Example

```
RLGHNCXA21W 00-04-18 19:01:09 EST EAGLE 31.3.0
0109.1023 CARD 1103,A INFO SCCP rcvd unknown msg type
SIO=0a OPC=003-255-000 DPC=000-024-000
DATA=26 80 03 09 0e 06 09 00 fe 08 50 55 05
43 00 00 00 00 00
LSN=A1234567
```

Legend

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a message that was discarded because the message type field contained an invalid field for the system. No action is necessary.

1024 - SCCP rcvd inv msg length

SCCP received a message from the network that was discarded because of an invalid message length.

Example

```
RLGHNCXA21W 00-04-18 19:01:15 EST EAGLE 31.3.0
0110.1024 CARD 1103,A INFO SCCP rcvd inv msg length
SIO=0a OPC=004-000-000 DPC=000-071-000
DATA=26 80 03 09 0e 06 09 00 fe 08 50 55 05
43 00 00 00 00 00
LSN=A1234567
```

Legend

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a message that was discarded because the message length field contained an invalid field for the system. No action is necessary.

1025 - SCCP rcvd inv msg class

SCCP received a message from the network that was discarded because of an invalid message class.

Example

```

RLGHNCXA21W 00-04-18 19:01:40 EST EAGLE 31.3.0
0111.1025    CARD 1103,A  INFO  SCCP rcvd inv msg class
             SIO=0a   OPC=004-001-000  DPC=000-071-000
             CDPA SS=000   CDPA TT=000
             CGPA SS=000   CGPA TT=000
             CLASS=000     MSG TYPE=00
             LSN=A1234567

```

Legend

CDPA. Called party address

CGPA. Calling party address

CLASS. Message class

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

SIO. Service information octet

SS. Subsystem

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a message that was discarded because the message class field contained an invalid value for the system. No action is necessary.

Corrective Maintenance

1026 - System Meas Limit exceeded for LSORIGNI

This gateway related data has exceeded its threshold for the accumulation interval.

Example

```
RLGHNCXA21W 00-04-18 19:05:43 EST EAGLE 31.3.0  
0128.1026 CARD 1105 INFO System Meas Limit exceeded for LSORIGNI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1027 - System Meas Limit exceeded for LSDESTNI

This gateway related data has exceeded its threshold for the accumulation interval.

Examples

```
RLGHNCXA21W 00-04-18 19:05:43 EST EAGLE 31.3.0  
0128.1027 CARD 1105 INFO System Meas Limit exceeded for LSDESTNI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1028 - System Meas. Limit exceeded for ORIGNI/NINC

This gateway related data has exceeded its threshold for the accumulation interval.

Examples

```

RLGHNCXA21W 00-04-18 19:05:43 EST EAGLE 31.3.0
0128.1028 CARD 1105 INFO System Meas. Limit exceeded for ORIGNI/NINC

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1029 - SCCP rcvd inv Cld Party - bad GT ind

SCCP received a message from the network that was discarded because of a bad global title indicator in the called party address.

Example

```

RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1029 CARD 1103,A1 INFO SCCP rcvd inv Cld Party - bad GT ind
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA LENGTH=000 MSG TYPE=04
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
ADDR=12345678901234567890
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
2e cf 01 00 d0 02 83 01 f2 25 aa 0b
84 09 01 00 11 0a 19 49
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

Corrective Maintenance

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a message that was discarded because the global title field in the called party address was invalid in the EAGLE 5 ISS. No action is necessary.

1030 - Inh EIR SS request already outstanding

An `inh-map-ss` command is already entered and queued.

For more information about the `inh-map-ss` command, refer to the *Commands Manual*.

Example

```
RLGHNCXA21W 03-08-18 19:09:14 EST EAGLE 31.3.0
0140.1030 CARD 1201 INFO Inh EIR SS request already outstanding
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1031 - Failure Inhibiting EIR SS

The **inh-map-ss** command was unsuccessful in taking the EIR subsystem off-line. For more information about the **inh-map-ss** command, refer to the *Commands Manual*.

Example

```
RLGHNCXA21W 03-08-18 19:09:14 EST EAGLE 31.3.0  
0140.1031 CARD 1201 INFO Failure Inhibiting EIR SS
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the **inh-map-ss** command with the **force** parameter.

1032 - Set ETS Mismatch

There is a discontinuity between the ETS broadcast and what the card expects. A discontinuity can occur when both OAM cards are booted at the same time and ETS gets reset to zero.

Example

```
RLGHNCXA21W 03-08-18 19:09:14 EST EAGLE 31.3.0  
0140.1032 CARD 1201 INFO Set ETS Mismatch
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

The affected LIM/ATM/STC card recalibrates to the new ETS value and should continue to operate correctly. If not, this is a reference point for possible invalid timestamps to Sentinel.

1033 - SCCP rcvd inv Cld Party - bad network

SCCP received a message from the network that it could not route and was discarded because of an invalid network indicator in the called party address.

Example

```
RLGHNCXA21W 00-04-18 19:02:12 EST EAGLE 31.3.0
0113.1033 CARD 1103,A1 INFO SCCP rcvd inv Cld Party - bad network
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA LENGTH=000 MSG TYPE=04
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
ADDR=12345678901234567890
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CGPA. Calling party address

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP discarded a message because the network indicator (national or international) provided in the called party address is invalid in the EAGLE 5 ISS. No action is necessary.

1034 - SCCP rcvd inv Cld Party - no SSN

SCCP received a message from the network that it could not route and was discarded because no subsystem number was present in the called party address.

Example

```

RLGHNCXA21W 00-04-18 19:02:41 EST EAGLE 31.3.0
0114.1034 CARD 1201,A INFO SCCP rcvd inv Cld Party - no SSN
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA LENGTH=000 MSG TYPE=04
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
ADDR=12345678901234567890
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CGPA. Calling party address

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

The sender of the discarded message is using an invalid message format. If there is only one occurrence, no action is necessary. However, if the condition continues, there may be a problem at the node that is sending the invalid message. Contact that node and inform them of the problem.

1035 - SCCP rsp did not route - invalid GTI

This message indicates the SCCP response did not route because of an invalid GTI in the calling party of the query.

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0018.1035   CARD 1103,A  INFO  SCCP rsp did not route - invalid GTI
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
           LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

- PCI. Protocol control information
- RI. Routing indicator
- SIO. Service information octet
- SSN. Subsystem number
- SSNI. Subsystem number indicator
- TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the message to include a valid GTI in the CGPA part of the query. Specify GTI=2 for ANSI, and specify GTI=2 or GTI=4, as appropriate for ITU.

1036 - SCCP rsp did not route - invalid TT

This message indicates the SCCP response did not route because of an invalid TT in the calling party of the query.

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0018.1036   CARD 1103,A  INFO  SCCP rsp did not route - invalid TT
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
           LSN=A1234567
```

Legend

- ADDR. Address
- CDPA. Called party address
- CGPA. Calling party address
- GTI. Global title indicator

Corrective Maintenance

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Provision the CGPA TT in the GTT TT table using the `ent-tt` command.

1037 - SCCP rsp did not route - bad Xlation

This message indicates the SCCP response did not route because of an invalid translation in the calling party of the query.

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0018.1037   CARD 1103,A  INFO  SCCP rsp did not route - bad Xlation
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
```

```
CGPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
        TT=100  NP=07  NAI=012  ADDR=012345678901234567890
        PC=001-001-001  SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Provision the CGPA GTA address in the GTT database using the `ent-gtt` command.

Corrective Maintenance

1038 - SCCP rsp did not route -SSP not True PC

This message indicates the SCCP response did not route because the SSP (OPC or CGPA Point Code) is not the True Point Code.

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0018.1038   CARD 1103,A INFO SCCP rsp did not route -SSP not True PC
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
           LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the message to use the True Point Code in the CGPA point code or OPC of the query.

1039 - SCCP rsp did not route - bad Selectors

This message indicates the SCCP response did not route because of invalid selectors (e.g., GTI, TT, NP, NAI) in the calling party of the query.

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0018.1039   CARD 1103,A   INFO SCCP rsp did not route - bad Selectors
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                  TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                  PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                  TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                  PC=001-001-001  SSN=004
           LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

Corrective Maintenance

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Provision the CGPA GTI, TT, NP, and NAI in the EGTT selector table using the commands `ent-gttset` (to assign global title selectors to a GTT set for EGTT) and `ent-gttset` (to specify the attributes for a new GTT set).

1040 - ITU <-> ANSI translation not supported

This message indicates an invalid translation PC type in attempting to cross the ANSI to ITU domain.

Example

```
station1234 02-07-21 16:28:08 EST EAGLE 35.0.0-46.12.0
0019.1040   CARD 1104,A   INFO   ITU <-> ANSI translation not supported
           TRANSLATED PC=003-003-003   TRANSLATED SS=005
           CDPA:  NI=1  RI=0  GTI=04  SSNI=0  PCI=1
                TT=250 NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003   SSN=005
           CGPA:  NI=1  RI=0  GTI=04  SSNI=0  PCI=1
                TT=100 NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001   SSN=004
           LSN=ABCD123
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the translation PC type to not cross the domain (ANSI <-> ITU), by using the appropriate EPAP commands. Refer to the *EPAP Administration Manual*.

1041 - SCCP did not route -no SSN in msg or DB

This message indicates the SCCP message did not route because the SSN was not found in the message or translation data.

Corrective Maintenance

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0143.1041   CARD 1104,A   SCCP did not route -no SSN in msg or DB
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
           LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the message to include the CDPA SSN in the message or provision the SSN in the translation table. You can change the translation table by using the appropriate GTT (**ent-gtt** or **ent-gta**) or the EPAP commands. Refer to the *Commands Manual* or the *EPAP Administration Manual*, respectively for details.

1042 - SCCP rcvd inv GT - bad Translation Type

SCCP received a message from the network requiring global title translation but the message was discarded because the system did not recognize the translation type.

Example

```

RLGHNCXA21W 00-04-18 19:02:47 EST EAGLE 31.3.0
0115.1042    CARD 1103,A  INFO  SCCP rcvd inv GT - bad Translation Type
              SIO=03    OPC=001-001-001  DPC=002-002-002
              CDPA LENGTH=000  MSG TYPE=04
              CDPA: AI=10 PC=003-003-003  SSN=005  TT=250
                  ADDR=12345678901234567890
              LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This indicates a SCCP message was received with an invalid global title. The translation type indicator was invalid in the EAGLE 5 ISS. If this message should have been routed (verified by the output shown above), continue to Step 2.
 2. Use the command **rtrv-tt**, and verify that the indicated translation type does not appear in the translation types table.
 3. If there is no entry for the translation type indicated in the message, and there should be, use the **ent-tt** command to add the translation type to the Eagle STP translation type table. Refer to the *Database Administration Manual - Global Title Translation* for more information about entering translation types.
-

1043 - SCCP did not route - bad translation

SCCP did not route a message because it could not translate the global title. The message was discarded.

Example

```
RLGHNCXA21W 00-04-18 19:02:54 EST EAGLE 31.3.0
0116.1043 CARD 1104,A INFO SCCP did not route - bad translation
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA LENGTH=000 MSG TYPE=04
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
ADDR=12345678901234567890
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CGPA. Calling party address

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a message with a global title translation it could not interpret. The message was discarded. No action is necessary.

1044 - SCCP did not route - DPC OOS

SCCP did not route a message because the destination point code (DPC) was out-of-service (OOS). The message was discarded.

Example

```

RLGHNCXA21W 00-04-18 19:03:01 EST EAGLE 31.3.0
0117.1044 CARD 1104,A1 INFO SCCP did not route - DPC OOS
      OPC=001-001-001
      TRANSLATED PC=004-019-000 TRANSLATED SS=004
      CDPA LENGHT=006          MSG TYPE=83
      CDPA: AI=10 PC=004-004-004 SSN=006 TT=250
            ADDR=ABCDEF1234567890ABCDE
      LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

Corrective Maintenance

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Check the route and linksets by entering the `rept-stat-dstn` and `rept-stat-ls` commands.
2. Verify the link status using the `rept-stat-slk` command. For example, enter:

```
rept-stat-slk:loc=:port=b
```

Following is an example of the output:

```
RLGHNCXA03W 00-09-27 17:00:36 EST EAGLE 35.0.0
SLK   LSN           CLLI           PST           SST           AST
1203,B nsp1         ls02c1li      OOS-MT        Unavail      ----
ALARM STATUS      = No alarm
UNAVAIL REASON    = FL NA LI RI
Command Completed.
```

3. Check the UNAVAIL REASON field in the output of the `rept-stat-slk` command. Following is an explanation of the UNAVAIL REASON codes:

FL – The signaling link has a fault.

NA – The signaling link is not aligned.

LI – The signaling link has been inhibited locally

RI – The signaling link has been inhibited remotely.

LB – The signaling link has been blocked locally.

RB – The signaling link has been blocked remotely.

FC – The signaling link is unavailable because of false congestion.

RD(xx.xxx) – The signaling link is unavailable because of a restart delay to prevent signaling link oscillation. The number in parentheses indicates the amount of time, in seconds, remaining in the restart delay period. The link is restarted automatically after this amount of time has elapsed.

-
4. If the UNAVAIL REASON indicates an alignment problem or fault, activate a loopback using the **act-lpb** command, or use a physical loopback. (For a V.35, you must use an appropriate physical V.35 loopback.) If the signaling link aligns, contact the far-end to correct the problem.
-
5. If the UNAVAIL REASON still indicates an alignment problem or fault, check the status of the card by entering the **rept-stat-card** command for the specified card.
-
6. If the **rept-stat-card** command indicates a problem with the card, reset the card by entering the **init-card** command with the specified card location. If the card still does not align, try first reseating the card, then replacing the card.

See Appendix A, *Card Removal/Replacement Procedures*.
-
7. If the UNAVAIL REASON indicates a locally inhibited link, enter the **unhb-slk** command with the specified card location.
-
8. If the UNAVAIL REASON indicates a locally blocked link, enter the **ublk-slk** command with the specified card location.
-
9. Otherwise, this indicates a failure at the distant node. Routing to this node has been halted as a result of network management. Maintenance personnel should be aware of the OOS condition, but no action is necessary. Monitor the links to the DPC and verify the DPC status changes to IS-NR (In-Service - Normal).
-

1045 - SCCP did not route - DPC congested

SCCP did not route a message because the destination point code (DPC) was congested. The message was discarded.

Example

```
RLGHNCXA21W 00-04-18 19:03:08 EST EAGLE 31.3.0
```

Corrective Maintenance

```
0118.1045   CARD 1104,A1  INFO   SCCP did not route - DPC congested
            OPC=001-001-001
            TRANSLATED PC=004-019-000  TRANSLATED SS=004
            CDPA LENGHT=006             MSG TYPE=83
            CDPA:  AI=10  PC=004-004-004  SSN=006  TT=250
                   ADDR=ABCDEF1234567890ABCDE
            LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SS. Subsystem

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates an SCCP message was discarded due to congestion at a distant node. Maintenance personnel should monitor the network and verify the nodes congestion status changes to zero (no congestion).

NOTE: A transfer controlled (TFC) should have been received on the link to indicate congestion to this node. When the congestion status changes, the congestion status indicator in the flow control messages indicates what message type priorities can be transmitted to the distant node. If the condition persists, follow normal company procedures in dealing with congestion at distant nodes.

1046 - SCCP did not route - DPC not in MAP tbl

SCCP did not route a message because the destination point code was not in the mated application (MAP) table. The message was discarded.

Example

```

RLGHNCXA21W 00-04-18 19:03:13 EST EAGLE 31.3.0
0119.1046 CARD 1104,A1 INFO SCCP did not route - DPC not in MAP tbl
OPC=001-001-001
TRANSLATED PC=004-019-000 TRANSLATED SS=004
CDPA LENGHT=006 MSG TYPE=83
CDPA: AI=10 PC=004-004-004 SSN=006 TT=250
ADDR=ABCDEF1234567890ABCDE
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SS. Subsystem

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the DPC indicated in the message should not be routed to, no further action is necessary.

2. If the DPC should be routed to from the EAGLE 5 ISS, use the **ent-map** command to enter the DPC into the mated application (MAP) table.
-

1047 - SCCP did not route - SS OOS

SCCP did not route a message because the destination subsystem (SSN) was Out-of-Service. The message was discarded.

Example

```
RLGHNCXA21W 00-04-18 19:03:21 EST EAGLE 31.3.0
0120.1047 CARD 1104,A1 INFO SCCP did not route - SS OOS
OPC=001-001-001
TRANSLATED PC=004-019-000 TRANSLATED SS=004
CDPA LENGHT=006 MSG TYPE=83
CDPA: AI=10 PC=004-004-004 SSN=006 TT=250
ADDR=ABCDEF1234567890ABCDE
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SS. Subsystem

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates an SCCP was discarded because the DPC SSN it was addressed to is out-of-service (OOS). Contact the distant end node this message refers to and verify action is being taken to bring the SCCP back into service.

1048 - SCCP did not route - SS congested

SCCP did not route a message because the subsystem was congested. The message was discarded.

Example

```

RLGHNCXA21W 00-04-18 19:03:27 EST EAGLE 31.3.0
0121.1048 CARD 1104,A1 INFO SCCP did not route - SS congested
OPC=001-001-001
TRANSLATED PC=004-019-000 TRANSLATED SS=004
CDPA LENGHT=006 MSG TYPE=83
CDPA: AI=10 PC=004-004-004 SSN=006 TT=250
ADDR=ABCDEF1234567890ABCDE
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SS. Subsystem

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates an SCCP message was discarded due to congestion at a subsystem. Maintenance personnel should monitor the network and verify the subsystems congestion status changes to zero (no congestion).

1049 - SCCP did not route - SS not in MAP tbl

SCCP did not route a message because the destination subsystem was not in the Mated Application (MAP) table. The message was discarded.

Example

```
RLGHNCXA21W 00-04-18 19:04:01 EST EAGLE 31.3.0
0124.1049 CARD 1104,A1 INFO SCCP did not route - SS not in MAP tbl
      OPC=001-001-00
      TRANSLATED PC=004-019-000 TRANSLATED SS=00
      CDPA LENGHT=006          MSG TYPE=83
      CDPA: AI=10 PC=004-004-004 SSN=006 TT=250
            ADDR=ABCDEF1234567890ABCDE
      LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SS. Subsystem

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the subsystem indicated in the message is not a mated application to the EAGLE 5 ISS, no further action is necessary.
-
2. If the SCCP message should have been routed, use the **ent-map** command to add the subsystem number to the mated application (MAP) table.
-

1050 - SCCP-CNV: Unable to convert ANSI CDPA GT

This message indicates that a SCCP MSU contained an undefined CDPA PC. The GTCNVDFLT STP Option is not enabled.

Example

```

RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1050 CARD 1103,A1 INFO SCCP-CNV: Unable to convert ANSI CDPA GT
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567

```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG GYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

Corrective Maintenance

PCI. Protocol control information
RI. Routing indicator
SIO. Service information octet
SSN. Subsystem number
SSNI. Subsystem number indicator
TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Perform one of the following actions:

- Enable the GTCNVDFLT STP Option, which would cause a default GT conversion to occur. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add the proper ANSI to ITU entry (matching TT) into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add a wildcard ANSI to ITU entry into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.
-

1051 - SCCP-CNV: Unable to convert ANSI CGPA GT

This message indicates that a SCCP MSU contained an undefined CGPA PC. The GTCNVDFLT STP Option is not enabled.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1051 CARD 1103,A1 INFO SCCP-CNV: Unable to convert ANSI CGPA GT
      SIO=03  OPC=001-001-001  DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0  GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
```

```
PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Perform one of the following actions:

Corrective Maintenance

- Enable the GTCNVDFLT STP Option, which would cause a default GT conversion to occur. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add the proper ANSI to ITU entry (matching TT) into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add a wildcard ANSI to ITU entry into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.
-

1052 - SCCP-CNV: Unable to convert ITU CDPA GT

This message indicates that a SCCP MSU contained an undefined CDPA PC. The GTCNVDFLT STP Option is not enabled.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1052 CARD 1103,A1 INFO SCCP-CNV: Unable to convert ITU CDPA GT
SIO=03 OPC=001-001-001 DPC=002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Perform one of the following actions:

- Enable the GTCNVDFLT STP Option, which would cause a default GT conversion to occur. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add the proper ANSI to ITU entry (matching NP/NAI/TT) into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add a wildcard ITU to ANSI entry into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.
-

1053 - SCCP-CNV: Unable to convert ITU CGPA GT

This message indicates that a SCCP MSU contained an undefined CGPA PC. The GTCNVDFLT STP Option is not enabled.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1053 CARD 1103,A1 INFO SCCP-CNV: Unable to convert ITU CGPA GT
SIO=03 OPC=001-001-001 DPC=002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Perform one of the following actions:

- Enable the GTCNVDFLT STP Option, which would cause a default GT conversion to occur. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add the proper ANSI to ITU entry (matching NP/NAI/TT) into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add a wildcard ITU to ANSI entry into the Default GT Conversion Table. Refer to the *Database Administration Manual - Global Title Translation* for details.
-

1054 - SCCP rcvd inv LSS - bad SSN

SCCP received a message destined to a local subsystem that was discarded because of a bad subsystem number (SSN).

Example

```

RLGHNCXA21W 00-04-18 19:02:47 EST EAGLE 31.3.0
0115.1054 CARD 1103,A INFO SCCP rcvd inv LSS - bad SSN
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA LENGTH=000 MSG TYPE=04
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
ADDR=12345678901234567890
LSN=A1234567

```

NOTE: Two outputs are possible. The Legend includes abbreviations found in both variations.

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTL. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

Corrective Maintenance

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtvr-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

The EAGLE 5 ISS supports only one subsystem. All other local subsystem numbers are invalid. No further action is necessary.

1055 - SCCP rcvd inv SCMG - bad AFTPC

SCCP received an SCCP management message (SCMG) that was discarded because of a bad affected point code (AFTPC). The point code does not appear in the EAGLE 5 ISS routing tables.

Example

```
RLGHNCXA21W 00-04-18 19:04:15 EST EAGLE 31.3.0
0124.1055 CARD 1106 INFO SCCP rcvd inv SCMG - bad AFTPC
SIO=0a OPC=004-031-000 DPC=000-071-000
SCMG: MSG TYPE=000 MSG LEN=003
AFTPC=004-219-000 AFTSS=000 MULT=000
LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG LEN. Message length

MSG TYPE. Message type

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. Verify the point code in the message, and verify whether the point code is required to be in the EAGLE 5 ISS routing tables.

 2. If the point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

 3. If the point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the point code to the EAGLE 5 ISS routing tables. Refer to the *Database Administration Manual - SS7* for more information about the procedure used to enter point codes to the EAGLE 5 ISS routing tables.
-

1056 - SCCP rcvd inv SCMG - bad subsystem

SCCP received an SCCP management message (SCMG) that was discarded because of an invalid subsystem.

Example

```
RLGHNCXA21W 00-04-18 19:04:15 EST EAGLE 31.3.0
```


Corrective Maintenance

```
0124.1056   CARD 1106   INFO   SCCP rcvd inv SCMG - bad subsystem
SIO=0a   OPC=004-031-000   DPC=000-071-000
SCMG: MSG TYPE=000   MSG LEN=003
AFTPC=004-219-000   AFTSS=000   MULT=000
LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG LEN. Message length

MSG TYPE. Message type

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the point code in the message, and verify the subsystem number as a valid SSN for the network.
 2. Add the subsystem number to the EAGLE 5 ISS map tables using the **ent-map** command.
-

1057 - SCCP rcvd inv SCMG - bad length

SCCP received an SCCP management message (SCMG) that was discarded because of an invalid length indicator.

Example

```
RLGHNCXA21W 00-04-18 19:04:15 EST   EAGLE 31.3.0
0124.1057   CARD 1106   INFO   SCCP rcvd inv SCMG - bad length
```

```
SIO=0a   OPC=004-031-000   DPC=000-071-000
SCMG: MSG TYPE=000   MSG LEN=003
AFTPC=004-219-000   AFTSS=000   MULT=000
LSN=A1234567
```

Legend

- AFTPC. Affected point code (for SCCP messages)
- AFTSS. Affected subsystem (identifies the subsystem that failed)
- DPC. Destination point code
- LSN. Linkset name. The name must be unique.
- MSG LEN. Message length
- MSG TYPE. Message type
- MULT. SCCP management message multiplicity indicator
- OPC. Origination point code
- SCMG. SCCP management message
- SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates an SCCP message was discarded due to an invalid length indicator. No further action is necessary.

1058 - SCCP rcvd inv SCMG - bad msg type

SCCP received an SCCP management message (SCMG) that was discarded because of an invalid message type.

Example

```
RLGHNCXA21W 00-04-18 19:05:37 EST EAGLE 31.3.0
0128.1058   CARD 1106   INFO   SCCP rcvd inv SCMG - bad msg type
SIO=0a   OPC=004-034-000   DPC=000-000-000
SCMG: MSG TYPE=000   MSG LEN=003
AFTPC=004-219-000   AFTSS=000   MULT=000
LSN=A1234567
```

Corrective Maintenance

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG LEN. Message length

MSG TYPE. Message type

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates an SCCP message was discarded due to an invalid message type. No further action is necessary.

1059 - Telnet terminal connection disconnected

Indicates that an established telnet connection on the EAGLE has disconnected.

Example

```
RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 31.5.0
0102.1059 CARD 1105,B INFO Telnet terminal connection disconnected
RIPADDR=192.168.57.52
RIPORT=2336
LIPADDR=192.168.53.46
LIPORT=23
```

Legend

LIPADDR. Local IP Address

LIPORT. Local TCP Port Number

RIPADDR. Remote IP Address

RIPORT. Remote TCP Port Number

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1060 - Map Screening cannot generate ATIER

This message is generated because the MSU passed the SCCP conversion before the MAP screening and is of a different domain than the OPC of the inbound MSU. Therefore, the MSU is discarded and the Any Time Interrogation error (ATIER) is not generated.

Example

```

RLGHNCXA21W 00-11-18 18:59:23 EST EAGLE 35.0.0
0018.1060 CARD 1103 INFO Map Screening cannot generate ATIER
OPC=001-001-001
CDPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
Op-Code=61 Forbidden Param=N/A Action=Discard
    
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

Corrective Maintenance

NP. Numbering plan

OPC. Origination point code

OP-CODE. Operation Code

PARAM. Parameter

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

The MSU indicated in the message was discarded. No further action is necessary.

1061 - Meas sync not allowed from old version

This UIM is generated when the secondary MCP receives measurements data from a primary MCP that is running an older version of the software. This message indicates that measurements data was discarded by the secondary MCP due to the version mismatch. This problem occurs during a system upgrade to a new release.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 31.4.0  
0140.1061 CARD 1201 INFO Meas sync not allowed from old version
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This UIM should only occur during an upgrade. Complete the upgrade per approved procedure.

1062 - String Data Dump

A screen set was created with too many rows.

Example

```
RLGHNCXA21W 00-04-18 19:05:43 EST EAGLE 31.3.0
0128.1062    CARD 1101  INFO   String Data Dump
                LSN=A1234567
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This message indicates that the screen set is too large to be loaded. Remove some of the entries (one entry at a time).
 2. If the screen set is still too large, use the **rtrv-scrset** command to see if there are any unnecessary entries already in the screen set that can be deleted.
 3. Retry adding to the screen set with the **chg-scrset** command. If the message appears again, your screen set is too large. Try a different screen set or change the existing screen set.
-

1063 - SCCP screen set is too large

The screen set is too large to fit on a LIM or SCCP card and has failed loading.

Example

```
RLGHNCXA21W 00-04-18 19:05:43 EST EAGLE 31.3.0
0128.1063    CARD 1105  INFO   SCCP screen set is too large
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This message indicates that the screen set is too large to be loaded to a LIM or SCCP. Remove some of the entries (one entry at a time).
 2. If the screen set is still too large, use the **rtrv-scrset** command to see if there are any unnecessary entries already in the screen set that can be deleted.
 3. Retry adding to the screen set with the **chg-scrset** command. If the message appears again, your screen set is too large. Try a different screen set or change the existing screen set.
-

1064 - GWS rcvd TFP, AFTPC not in routing tbl

The EAGLE 5 ISS has received a transfer controlled (TCP) for an affected point code (AFTPC) which does not appear in the EAGLE 5 ISS routing tables. The message was discarded by Gateway Screening (GWS).

Example

```
RLGHNCXA21W 00-04-18 19:05:52 EST EAGLE 31.3.0
0129.1064 CARD 1105,A INFO GWS rcvd TFP, AFTPC not in routing tbl
SIO=b0 OPC=004-040-000 DPC=000-001-000
H0H1=41 AFTPC=099-099-003
SR=scr b LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.

2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.

1065 - GWS rcvd TFR, AFTPC not in routing tbl

The EAGLE 5 ISS has received a transfer restricted (TFR) for an affected point code (AFTPC) which does not appear in the EAGLE 5 ISS routing tables. The message was discarded by gateway screening (GWS).

Example

```

RLGHNCXA21W 00-04-18 19:05:57 EST EAGLE 31.3.0
0130.1065     CARD 1201,A  INFO   GWS rcvd TFR, AFTPC not in routing tbl
              SIO=b0     OPC=004-041-000  DPC=001-000-000
              H0H1=43   AFTPC=099-099-003
              SR=scrub  LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.
 2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.
 3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.
-

1066 - GWS rcvd TFA, AFTPC not in routing tbl

The EAGLE 5 ISS has received a transfer allowed (TFA) for an affected point code (AFTPC) that does not appear in the EAGLE 5 ISS routing tables. The message was discarded by the gateway screening (GWS) feature.

Example

```
RLGHNCXA21W 00-04-18 19:06:35 EST EAGLE 31.3.0
0131.1066 CARD 1201,A INFO GWS rcvd TFA, AFTPC not in routing tbl
SIO=b0 OPC=004-042-000 DPC=002-000-000
H0H1=45 AFTPC=099-099-003
SR=scr b LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.

2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.

1067 - GWS rcvd UPU, AFTPC not in routing tbl

The EAGLE 5 ISS has received a user part unavailable (UPU) for an affected point code (AFTPC) which does not appear in the EAGLE 5 ISS routing tables. The message was discarded by gateway screening (GWS).

Example

```

RLGHNCXA21W 00-04-18 19:06:42 EST EAGLE 31.3.0
0132.1067    CARD 1201,A  INFO  GWS rcvd UPU, AFTPC not in routing tbl
              SIO=90   OPC=004-043-000  DPC=002-000-000
              H0H1=A1  AFTPC=099-099-003
              SR=scrib  LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.
 2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.
 3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.
-

1068 - GWS rcvd RSP, AFTPC not in routing tbl

The EAGLE 5 ISS has received a signaling route set test prohibited message (RSP) for an affected point code (AFTPC) which does not appear in the EAGLE 5 ISS routing tables. The message was discarded by gateway screening (GWS).

Example

```
RLGHNCXA21W 00-04-18 19:06:48 EST EAGLE 31.3.0
0133.1068 CARD 1201,A INFO GWS rcvd RSP, AFTPC not in routing tbl
SIO=b0 OPC=004-044-000 DPC=008-010-000
H0H1=51 AFTPC=099-099-003
SR=scr b LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.

2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.

1069 - GWS rcvd RSR, AFTPC not in routing table

The EAGLE 5 ISS has received a signaling route test set restricted (RSR) for an affected point code (AFTPC) which does not appear in the EAGLE 5 ISS routing tables. The message was discarded by gateway screening (GWS).

Example

```

RLGHNCXA21W 00-04-18 19:07:27 EST EAGLE 31.3.0
0134.1069 CARD 1201,A INFO GWS rcvd RSR with AFTPC not in routing tbl
      SIO=b0   OPC=004-045-004   DPC=002-072-002
      H0H1=52  AFTPC=099-099-003
      SR=scrib  LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.
 2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.
 3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.
-

1070 - SLTC failure: invalid Point Code (OPC)

The signaling link test control has reported an invalid point code in the signaling link test message (SLTM) received from the far end. The point code for the adjacent signaling point does not match the point code in the adjacent point code field in the linkset table.

Example

```
RLGHNCXA21W 00-04-18 19:08:05 EST EAGLE 31.3.0
0135.1070 CARD 1201,A INFO SLTC failure: invalid Point Code (OPC)
SIO=0a OPC=003-236-000 DPC=000-071-000
LSN=A1234567
```

Legend

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the following command to display the linkset names and the adjacent point codes:

```
rtrv-ls
```

Following is an example of the output:

```
RLGHNCXA03W 00-06-10 11:43:04 EST EAGLE 35.0.0
```

LSN	APCA (SS7)	SCRN	SET	SET	BEI	LST	LNKS	ACT	MES	DIS	SLSCI	NIS
lsa1	240-020-000	none	1	1	no	A	1	off	off	off	no	off
lsa2	240-030-000	none	1	1	no	A	3	on	on	on	yes	off

```
Link set table is (114 of 255) 45 % FULL
```

-
- The adjacent point code should match the adjacent point code in the message (004-046-000, for example). If it does not match, the link is not physically connected to the adjacent node. Determine the correct linkset name and adjacent point code. Use the **ent-ls** command to enter the correct information in the linkset table.
-

1071 - SLTC failure: invalid SLC

The signaling link test control has reported an invalid signaling link code (SLC) in the signaling link test message (SLTM) received from the far end.

Example

```
RLGHNCXA21W 00-04-18 19:08:13 EST EAGLE 31.3.0
0136.1071 CARD 1201,A INFO SLTC failure: invalid SLC
ADJ PC=004-046-000 SLC=02 LEN=0f
DATA= 01 02 03 04 05 06 07 08 09 11 12 13 14 15
```

Legend

ADJ PC. Adjacent point code

DATA. Information from the upper layers of SCCP management

LEN. Data length

SLC. Signaling link code

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the far-end to make sure both ends have provisioned the same SLC for the signaling link.

Corrective Maintenance

1072 - SLTC failure: no response

The signaling link test control has reported “No Response” received for a signaling link test message (SLTM) sent to the far end.

Example

```
RLGHNCXA21W 00-04-18 19:08:21 EST EAGLE 31.3.0
0137.1072 CARD 1201,A INFO SLTC failure:no response
ADJ PC=004-046-000 SLC=02 LEN=0f
DATA= 01 02 03 04 05 06 07 08 09 11 12 13 14 15
```

Legend

ADJ PC. Adjacent point code

DATA. Information from the upper layers of SCCP management

LEN. Data length

SLC. Signaling link code

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the far-end to find out why there is no response to the SLTM.

1073 - SLTC failure: bad data pattern

The signaling link test control has detected an invalid data pattern in the signaling link test message (SLTM) received from the far end.

Example

```
RLGHNCXA21W 00-04-18 19:08:28 EST EAGLE 31.3.0
0138.1073 CARD 1201,A INFO SLTC failure:bad data pattern
ADJ PC=004-046-000 SLC=02 LEN=0f
DATA= 01 02 03 04 05 06 07 08 09 11 12 13 14 15
```

Legend

ADJ PC. Adjacent point code

DATA. Information from the upper layers of SCCP management

LEN. Data length

SLC. Signaling link code

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the far-end and use your company procedures to test the facilities for the signaling link.

1074 - SCCP rcvd inv SCMG - invalid SOR

SCCP received an SCCP management message (SCMG) that was discarded because of an invalid subsystem out of service request (SOR).

Example

```

RLGHNCXA21W 00-04-18 19:04:15 EST EAGLE 31.3.0
0124.1074    CARD 1106  INFO  SCCP rcvd inv SCMG - invalid SOR
              SIO=0a   OPC=004-031-000  DPC=000-071-000
              SCMG:    MSG TYPE=000      MSG LEN=003
              AFTPC=004-219-000  AFTSS=000  MULT=000
              LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG LEN. Message length

MSG TYPE. Message type

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the point code in the message, and verify the subsystem number as a valid SSN for the network.
-
2. Add the subsystem number to the EAGLE 5 ISS map tables using the **ent-map** command.
-

1075 - MTP: link bypassed SLT phase

The link has aligned and may be brought into service without a successful signaling link test (SLT).

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 31.3.0
0140.1075 CARD 1201,A INFO MTP: link bypassed SLT phase
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the **rtrv-slk** command with the card location and port shown in this message (for example, card location 1201, port A). Following is an example of the output:

```
tekelecstp 00-02-19 21:17:04 EST EAGLE 35.0.0
rtrv-slk:loc = 1202:port = a
Command entered at terminal #3.
```

```
tekelecstp 94-02-19 21:17:04 EST EAGLE 35.0.0
```

LOC	PORT	LSN	SLC	TYPE	SET	L2T BPS	L1 MODE	TSET	ECM	N1	PCR	PCR
1201	A	lsa1	0	LIMV35	2	64000	DTE	---	PCR	---	3800	

2. Use the **rtrv-ls** command using the linkset name (lsn) displayed in the output of Step 1. Following is an example of the output:

```
> rtrv-ls:lsn = lsa1
tekelecstp 00-06-10 11:43:04 EST EAGLE 35.0.0
```

LSN	APCA (SS7)	SCR SET	L3T SET	SLT SET	BEI	LST	LNKS	GWSA	GWSM	GWSD	DOMAIN
-----	------------	------------	------------	------------	-----	-----	------	------	------	------	--------

```
lsa1      240-020-000  scr1  1      1  yes  A   4      off  off  off  SS7

TFATCABMLQ
2

LOC  PORT  SLC  TYPE      L2T      L1      PCR  PCR
SET  BPS    MODE TSET  ECM  N1  N2
1201 a    3   LIMV35  2    64000 DTE  --- BASIC --- -----
1205 b    0   LIMDS0  1    56000 ---  --- BASIC --- -----
      b    1   LIMOCU  1    56000 ---  --- BASIC --- -----
1211 a    2   LIMDS0  1    56000 ---  --- BASIC --- -----

Link set table is (114 of 255) 45% full.
```

3. Enter the **rtrv-slt** command with the **sltset** parameter and the value shown in the SLTSET column from the output of Step 2 to determine whether the signaling link test message is on or off.

4. If the signaling link test message is off, enter the **chg-slt** command with the **sltset** parameter and the value used in Step 3, and the **enabled=on** parameter.

5. If the signaling link test message is on, enter the **rept-stat-card** command to verify the status of the card that contains the specified signaling link. The status of the card should be IS-NR (In-Service - Normal). If the card is out of service, put it back into service by entering the **rst-card** command.

6. If the fault is not cleared, enter the **rept-stat-slk** command to verify the status of the signaling link. The status of the signaling should be IS-NR (In-Service - Normal). If the signaling link is out of service, enter the **act-slk** command to put the signaling link back into service.

7. If the fault is not cleared, enter the **tst-slk** command specifying the signaling link that generated this message.

8. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.

1076 - SLTC failure: invalid Point Code (DPC)

The signaling link test control (SLTC) has detected an invalid data pattern in the signaling link test message (SLTM) received from the adjacent point code.

Example

```
RLGHNCXA21W 00-04-18 19:09:22 EST  EAGLE 31.3.0
0141.1076   CARD 1201,A  INFO  SLTC failure:invalid Point Code (DPC)
           ADJ PC=004-046-000  SLC=02      LEN=0f
           DATA= 01 02 03 04 05 06 07 08 09 11 12 13 14 15
```

Corrective Maintenance

Legend

ADJ PC. Adjacent point code

DATA. Information from the upper layers of SCCP management

LEN. Data length

SLC. Signaling link code

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the far-end and use local procedures to test the facilities for the signaling link.

1077 - SLTC failure: failed link

The signaling link test control failed because the link that requires testing has failed.

Example

```
RLGHNCXA21W 00-04-18 19:10:01 EST EAGLE 31.3.0
0142.1077 CARD 1201,A INFO SLTC failure:failed link
ADJ PC=004-046-000 SLC=02 LEN=0F
DATA= 01 02 03 04 05 06 07 08 09 11 12 13 14 15
```

Legend

ADJPC. Adjacent point code

DATA. Information from the upper layers of SCCP management

LEN. Data length

SLC. Signaling link code

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. The link failed before testing could complete. Check for other messages relating to the link failure.
-
2. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.
-

1078 - SLTC success: manual test passed

This message is the result of the successful completion of the **tst-slk** command.

Example

```

RLGHNCXA21W 00-04-18 19:10:08 EST EAGLE 31.3.0
0143.1078    CARD 1201,A  INFO  SLTC success:manual test passed
            ADJ PC=004-046-000  SLC=02    LEN=0f
            DATA= 01 02 03 04 05 06 07 08 09 11 12 13 14 15

```

Legend

ADJ PC. Adjacent point code

DATA. Information from the upper layers of SCCP management

LEN. Data length

SLC. Signaling link code

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates successful completion of a signaling link test message. No further action is necessary.

1079 - SLTC aborted: unable to perform test

The **tst-slk** command was entered and the specified signaling link was not in the IS-NR (In-Service - Normal) state. For the **tst-slk** command to be used, the specified signaling link must be in the IS-NR state.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-04-18 19:10:16 EST EAGLE 31.3.0
0144.1079 CARD 1201,A INFO SLTC aborted:unable to perform test
ADJ PC=004-046-000 SLC=02 LEN=0f
DATA= 01 02 03 04 05 06 07 08 09 11 12 13 14 15
```

Legend

ADJ PC. Adjacent point code

DATA. Information from the upper layers of SCCP management

LEN. Data length

SLC. Signaling link code

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the **rept-stat-slk** command to verify the status of the signaling links.
 2. Re-enter the **tst-slk** command specifying a signaling link that is in the IS-NR state.
-

1080 - disk measurement status unreadable

The active MASP could not determine the measurement collection status so that the measurements task could perform routine polling and measurement collection. If the measurement collection status cannot be determined, the routine polling and measurement collection tasks cannot be performed.

Example

```
RLGHNCXA21W 00-04-18 19:10:54 EST EAGLE 31.3.0
0145.1080 CARD 1116 INFO disk measurement status unreadable
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the **rept-meas** command. If the **rept-meas** command fails, a system problem is the likely cause. If any messages are generated with the **rept-meas** command failure, take the appropriate action for that message. If no messages are generated, contact the *Customer Care Center*, see page 1-12.
 2. If the **rept-meas** command is rejected with a system busy message, the disk is reserved by another command (for example, **copy-disk**). Check to see if another command is running (**copy-disk** or a **chg-db** command).
-

1081 - MTP: Changeback T5 timeout

When a link changes back, the EAGLE 5 ISS sends up to six changeback declaration messages and starts the T4 timer. The EAGLE 5 ISS waits for a changeback acknowledgment message for each of these declarations. If the T4 timer expires before the EAGLE 5 ISS receives an acknowledgment message, the EAGLE 5 ISS sends the changeback declaration message again and starts the T5 timer. If the T5 timer expires before the EAGLE 5 ISS receives an acknowledgment message, this message is generated and the EAGLE 5 ISS restarts traffic on the link.

Example

```
RLGHNCXA21W 00-04-18 19:11:03 EST EAGLE 31.3.0
0146.1081 CARD 1105, A INFO MTP: Changeback T5 timeout
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

The system restarts traffic and no further action is necessary.

1082 - Amem single bit error report

This message indicates that an ASM, GPSM-II, or TSM card encountered a single bit dynamic ram error. This message gives the user a record of single bit errors for the last 24 hours.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-04-18 19:12:00 EST EAGLE 31.3.0
0147.1082   CARD 1101      INFO  Amem single bit error report
           Any Errors      : YES  current hour-----v
           24 Hour History: NNNYNN NNNNNN NNNNYN NYNNNY
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered and corrected. If many errors are reported then the card may be beginning to fail and should be targeted for replacement in the future.

1083 - REPT COND: system alive

This message is a periodic system message indicating that the system is alive.

Example

```
RLGHNCXA21W 00-04-18 19:12:00 EST EAGLE 31.3.0
0147.1083   SYSTEM      INFO  REPT COND: system alive
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1084 - GWS MSU discarded by redirect function

This message indicates that an MSU has been discarded rather than redirected to the SCP as part of the Database Transport Access (DTA) feature.

Example

```
RLGHNCXA21W 00-04-18 19:12:00 EST EAGLE 31.3.0
```

```
0003.1084   CARD 1205,A   INFO   GWS MSU discarded by redirect function
            SIO=01           OPC=003-237-002   DPC=006-006-000
            SR=scrbr
            LSN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TN. Telephone number

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Check to see if the redirect function is disabled by entering the following:

```
rtrv-gws-redirect
```

2. If the enabled parameter is set to OFF as in the following output, the redirect function needs to be enabled.

```
RLGHNCXA03W 00-02-10 11:43:04 EST EAGLE 35.0.0  
ENABLED DPC RI SSN TT GTA  
off 001-030-001 GT 10 25 1800833
```

3. Enter the following command to enable the redirect function:

```
chg-gws-redirect:enabled=on
```

1085 - GWS MSU too large to be redirected

This message indicates that the system tried to encapsulate an MSU for redirection to an SCP (as part of the Database Transport Access feature).

The DTA feature encapsulates the entire data packet including level 2 MTP. Because the DTA feature requires approximately 24 octets, the original packet can contain a maximum of about 248 octets of "user data." If the size of the data is larger, the MSU cannot be redirected and is routed to its original destination.

Example

```
RLGHNCXA21W 00-04-18 19:12:00 EST EAGLE 31.3.0  
0003.1085 CARD 1205,A INFO GWS MSU too large to be redirected  
SIO=01 OPC=003-237-002 DPC=006-006-000  
SR=scrib  
LSN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TN. Telephone number

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If MSUs are frequently discarded, there may be a problem on the origination end. To determine the number of MSUs that are discarded because the MSU is too large to be encapsulated, enter the following command:


```
rept-meas:type=systot:enttype=stp:period=last
```

 2. Check the DTAMSULOST report in the output message. If the number of discarded MSUs is low, no further action is necessary. If large quantities are MSUs are lost, the originating node may need to be reconfigured.
-

1086 - LFS test terminated with OAM switchover

The link fault sectionalization (LFS) test terminated when the OAM switched over.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-04-18 19:11:03 EST EAGLE 31.3.0
0146.1086 CARD 1115 INFO LFS test terminated with OAM switchover
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1087 - MTP RSTRT rcvd unexpected user traffic

This message indicates the system encountered traffic during the MTP Restart process.

Example

```
RLGHNCXA21W 00-04-18 19:12:00 EST EAGLE 31.3.0
0147.1087 CARD 1101 INFO MTP RSTRT rcvd unexpected user traffic
Report Date:00-03-30 Time: 16:27:19 :
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1088 - REPT-MTP-RSTRT MTP Restart started

This message indicates that a full MTP Restart has begun.

Example

```
RLGHNCXA21W 00-04-18 19:12:00 EST EAGLE 31.3.0
0147.1088 CARD 1101 INFO REPT-MTP-RSTRT MTP Restart started
Report Date:00-03-30 Time: 16:27:19 :
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that MTP Restart has begun.

1089 - RCVRY-MTP-RSTRT MTP Restart completed

This message indicates a full MTP Restart is complete.

Example

```

RLGHNCXA21W 00-04-18 19:12:00 EST EAGLE 31.3.0
0147.1089    CARD 1101    INFO  RCVRY-MTP-RSTRT MTP Restart completed
              Report Date:00-03-30    Time: 16:27:19    :
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that MTP Restart is complete.

1090 - ITU GWY:CPC conversion failure

This message indicates a protocol conversion failure. There are three possible reasons for the conversion failure.

- The point code was not in the database.
- The appropriate point code type was unavailable. There is no true point code or alias point code that matches the CPC.
- The database is corrupted. The master database and the card database must be synchronized.

Corrective Maintenance

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0010.1090 CARD 1205,B INFO ITU GWY: CPC conversion failure
        SIO=0a OPC=3-236-1 DPC=1-014-2
        CPC=3-095-6
        LSN=A1234567890
```

Legend

CPC. Capability point code

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Check the database to make sure the card database is synchronized with the master database. Enter the **rept-stat-db:display=except** command. If the databases are not synchronized, reload the card data by initializing the card. If the databases are synchronized, go to Step 2.

 2. Enter the **rtrv-dstn:dpc** command. If the **rtrv-dstn** command fails, the point code is undefined or the destination point code is an alias and not a true point code.

 3. To verify that the point code is an alias, enter the **rtrv-dstn:alias** command. If the command succeeds, you must provision the database with the true point code using the **chg-dstn:dpc=xxx:alias=yyy** command.

 4. If the point code is not an alias, you must define the point code using the **ent-dstn:dpci=xxx:aliasi=yyy** command.
-

1091 - ITU GWY:OPC conversion failure

This message indicates a protocol conversion failure. There are three possible reasons for the conversion failure.

- The point code is not in the database.
- The appropriate point code type was unavailable. There is no true point code or alias point code that matches the OPC.
- The database is corrupted.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0010.1091 CARD 1205,B INFO ITU GWY: OPC conversion failure
SIO=0a OPC=3-236-1 DPC=1-014-2
LSN=A1234567890
```

Legend

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Check the database to make sure the card database is synchronized with the master database. Enter the **rept-stat-db:display=except** command. If the databases are not synchronized, reload the card data by initializing the card. If the databases are synchronized, go to Step 2.
2. Enter the **rtrv-dstn:dpc** command. If the **rtrv-dstn** command fails, the point code is undefined or the destination point code is an alias and not a true point code.
3. To verify that the point code is an alias, enter the **rtrv-dstn:alias** command. If the command succeeds, you must provision the database with the true point code using the **chg-dstn:dpc=xxx:alias=yyy** command.
4. If the point code is not an alias, you must define the point code using the **ent-dstn:dpci=xxx:aliasi=yyy** command.

Corrective Maintenance

1092 - ITU GWY:HOH1 conversion failure

This message occurs when there is an ANSI message with no ITU equivalent. The ANSI messages with no ITU equivalent are as follows:

Table 3-23. ANSI messages with no ITU equivalent

Message	H0/H1 Code (Hex)
Transfer Restricted (TFR) when generated by an ITU National network	43
Transfer-Cluster Restricted (TCR)	44
Transfer-Cluster Allowed (TCA)	46
Transfer-Cluster Prohibit Signal (TCP)	42

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0010.1092 CARD 1205,B INFO ITU GWY: H0H1 conversion failure
SIO=08 OPC=003-235-001 DPC=006-006-000
H0H1=42
LSN=A1234567890
```

Legend

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1093 - ITU GWY:rcvd msg type cannot convert

This message indicates the STP received a message type that has no equivalent in the opposite protocol. The following is the list of message types that have no equivalents and are discarded.

Table 3-24. Message type with no opposite protocol equivalent.

Message Type	Code
Confusion Message (CNF)	2F
Connect Message (CONN)	07
Continuity Test Message (COT)	05
Continuity Check Request Message (CCR)	11
Information Message (INF)	04
Information Request Message (INR)	03
Loop Back Acknowledge Message (LPA)	24
Overload Message (OLM)	30

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0110.1093 CARD 1205,B INFO ITU GWY:rcvd msg type cannot convert
SIO=0e OPC=4-013-1 DPC=1-003-0
MSG TYPE=07
LSN=A1234567890
```

Legend

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1094 - ITU GWY:Invalid ISUP msg structure

This message indicates that an ISUP parameter or pointer to a parameter was invalid.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0110.1094 CARD 1205,B INFO ITU GWY:Invalid ISUP msg structure
          SIO=0e OPC=4-013-1 DPC=1-003-0
          MSG TYPE=07
          LSN=A1234567890
```

Legend

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1095 - ITU GWY:GRS buffer full

This message indicates the circuit group reset (GRS) buffer is full.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0  
0110.1095 CARD 1205,B INFO ITU GWY:GRS buffer full
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1096 - ITU GWY:RSC buffer full

This message indicates the reset circuit (RSC) buffer is full.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0  
0110.1096 CARD 1205,B INFO ITU GWY: RSC buffer full
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1097 - ITU GWY:CGB buffer full

This message indicates the circuit group blocking (CGB) buffer is full.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0  
0110.1097 CARD 1205,B INFO ITU GWY: CGB buffer full
```

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1098 - Unexpected disk access timeout

This message is used to determine whether there are problems with the disk access system.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0  
0110.1098 CARD 1113 INFO Unexpected disk access timeout
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

If the target disk is the same CARD that corresponds to the GPSM-II, there is a software timing issue that needs to be addressed. If the target disk is the mate GPSM-II/TDM or the removable and access is physically impossible, no action is necessary.

1099 - String Data Dump

This is a generic string UIM. This OAP related string falls under two categories.

Example

The strings that are generated in response to OAP conditions are as follows:

```
CAUTION: OAP Configuration changed  
CAUTION: Invalid SEAS X25 Link 2 status  
CAUTION: Invalid SEAS X25 Link 1 status  
Change in PVC number is detected
```

The OAP generated strings are as follows:

```

ILLEGAL - EMS Agent status value
ILLEGAL _ Q3 Association value
LSMS Resynchronization in progress
Q3 association is Down
Q3 association is Up
Q3 association is Not Configured
EMS Agent is not running
MS Agent is running
Filesystem threshold %s %d
x25 link %d Down
x25 ln %d pvc %02d pvc st %01d ual st %01d
Out of seq code old %c new %c in msg id %d
Out of seq code old new %c in msg id %d
Unexpected seq code %c for MNT msgs
Unexpected length %d
Unexpected version number %s
Unexpected id %d
Unexpected seq code %c
Unexpected Priority %d
Incomplete message
Missing ETX
Extraneous %d bytes received
    
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1100 - GWS rcvd H0/H1 that is not allowed

This message indicates the STP has received an H0/H1 that is not allowed.

Example

```

RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1100 CARD 1201,A INFO GWS rcvd H0H1 that is not allowed
SIO=02 OPC=009-009-009 DPC=006-006-006
H0H1=01 AFTPC=255-009-009
SR=osp3 LSN=A1234567
    
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

Corrective Maintenance

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TN. Telephone number

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered and corrected.

1102 - Invalid Length for Map IMEI Parameter

This message indicates that the EIR subsystem received a Check-IMEI message in which the Map IMEI parameter had an invalid length.

Example

```

RLGHNCXA21W 00-04-18 19:00:11 EST EAGLE 31.3.0
0107.1102 CARD 1103,A1 INFO Invalid Length for Map IMEI Parameter
SIO=03 OPC=003-252-000 DPC=000-071-000
CDPA: AI=10 SSN=05 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=12 PC=001-001-001 SSN=002
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1103 - LSS:No Map IMEI Parameter present

This message indicates that the EIR subsystem received a Check-IMEI message in which the Map IMEI parameter is not present.

Example

```
RLGHNCXA21W 00-04-18 19:00:11 EST EAGLE 31.3.0
0107.1103 CARD 1103,A1 INFO LSS:No Map IMEI Parameter present
SIO=03 OPC=003-252-000 DPC=000-071-000
CDPA: AI=10 SSN=05 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=12 PC=001-001-001 SSN=002
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1104 - IP Connection Failed

Reports that either an attempt to connect to an IP server failed, or that a client socket failed to establish a connection with the system (IP7 Secure Gateway).

Example

```

RLGHNCXA03W 99-04-10 16:28:08 EST EAGLE 35.0.0
0003.1104    DCM 1213,A    IP Connection Failed
              RIPADDR = 123.123.123.123
              RPORT = 1314
              LIPADDR = 123.123.123.124
              LPORT = 1315
              SNAME=LONGSOCKETNAME1
              Report Date: 02-04-10   Time: 16:27:19

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

Reports on connection status can be obtained for each DCM card with the following commands:

pass:loc=xxxx:cmd="connmgr -l" displays the connection manager event log.

pass:loc=xxxx:cmd="connmgr -c" displays socket client data.

pass:loc=xxxx:cmd="connmgr -s" displays socket server data.

1105 - REPT EVT:IMT GPL reloading

This message indicates the IMT software download procedure is initiated. This is the first message that the system displays.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1105    SYSTEM      INFO    REPT EVT:IMT GPL reloading
            cards      loaded   : 1 of 25
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1106 - REPT COND:IMT GPL reloading

This message displays the progress of the IMT software downloading procedure.

Example

```
RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1106    SYSTEM      INFO    REPT COND:IMT GPL reloading
            cards      loaded   : 10 of 25
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1107 - SCCP XUDT (S) msg: Hop Counter violation

This message indicates that the incoming MSU has a Hop counter value of zero or greater than 15 and the F bit in the segmentation parameter is not set. A XUDTS error response is generated and sent to the originating node. The message is discarded.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
```

```

0112.1107 CARD 1103,A1 INFO SSCP XUDT (S) msg: Hop Counter violation
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SSCP MSG TYPE=04
      CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567
  
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

The sender of the discarded message is using an invalid message format. If there is only one occurrence, no action is necessary. However, if the condition continues, there may be a problem at the node that is sending the invalid message. Contact that node and inform them of the problem.

1108 - SCCP XUDT (S) msg: inv opt portion len

This message indicates that the incoming MSU has an invalid length in the optional portion (optional parameter length exceeding the MSU length or no end of optional parameters octet). The message is discarded.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1108 CARD 1103,A1 INFO SCCP XUDT (S) msg: inv opt portion len
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates an SCCP message was discarded due to an invalid length. No further action is necessary.

1109 - SCCP XUDT(S) msg: inv segmentation parm

This message indicates that the length of the optional segmentation parameter is not equal to 6. The length of the segmentation parameter must be equal to 6. The message is discarded.

Example

```

RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1109 CARD 1103,A1 INFO SCCP XUDT(S) msg: inv segmentation parm
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567

```

Legend

ADDR. Address

CDPA. Called party address

Corrective Maintenance

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This message indicates an SCCP message was discarded due to an invalid segmentation parameter. No further action is necessary.

1110 - GWS rcvd AFTPC that is not allowed

This indicates that a message was received by a gateway link and failed DESTFLD screening because of an affected point code value in the message.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1110    CARD 1105,B  INFO  GWS rcvd AFTPC that is not allowed
              SIO=0a    OPC=003-243-000  DPC=000-024-000
              H0H1=41   AFTPC=099-099-003
              SR=osp3    LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.

 2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

 3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.
-

1111 - GWS rcvd TCA, AFTPC not in routing tbl

This indicates that a TCA message was received by a gateway link and failed DESTFLD screening because of an affected point code value in the message.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0

```

Corrective Maintenance

```
0100.1111    CARD 1105,B  INFO    GWS rcvd TCA, AFTPC not in routing tbl
SIO=0a    OPC=003-243-000  DPC=000-024-000
H0H1=46    AFTPC=099-099-003
SR=osp3    LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.
 2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.
 3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.
-

1112 - GWS rcvd TCR, AFTPC not in routing tbl

This indicates that a TCR message was received by a gateway link and failed DESTFLD screening because of an affected point code value in the message.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST  EAGLE 35.0.0
0100.1112    CARD 1105,B  INFO    GWS rcvd TCR, AFTPC not in routing tbl
SIO=0a    OPC=003-243-000  DPC=000-024-000
H0H1=44    AFTPC=099-099-003
```

SR=osp3 LSN=A1234567

Legend**AFTPC.** Affected point code (for SCCP messages)**DPC.** Destination point code**H0H1.** H0/H1 heading code**LSN.** Linkset name. The name must be unique.**OPC.** Origination point code**SIO.** Service information octet**SR.** Screening reference name**Alarm Level:** No alarm condition. The message is informational only.**Recovery**

-
1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.

 2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

 3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.

1113 - GWS rcvd TCP, AFTPC not in routing tbl

This indicates that a TCP message was received by a gateway link and failed DESTFLD screening because of an affected point code value in the message.

Example

```

RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1113 CARD 1105,B INFO GWS rcvd TCP, AFTPC not in routing tbl
SIO=0a OPC=003-243-000 DPC=000-024-000
H0H1=42 AFTPC=099-099-003
SR=osp3 LSN=A1234567

```


Corrective Maintenance

Legend

AFTPC. Affected point code (for SCCP messages)

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify the affected point code in the message, and verify whether the affected point code is required to be in the EAGLE 5 ISS routing tables.

2. If the affected point code is not required to be in the EAGLE 5 ISS routing tables, no further action is necessary.

3. If the affected point code is required to be in the EAGLE 5 ISS routing table, use the **ent-dstn** command to add the affected point code to the EAGLE 5 ISS routing tables.

1114 - Database BACKUP started

A local database backup is beginning. This UIM follows the issue of the **chg-db:action=backup** command.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1114 CARD 1201,A INFO Database BACKUP started
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1115 - Database RESTORE started

A local database restore is beginning. This UIM follows the issue of the **chg-db:action=restore** command.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1115 CARD 1201,A INFO Database RESTORE started
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1116 - Database action ended - OK

A local database backup or restore has successfully completed. This UIM follows the issue of the **chg-db** command.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1116 CARD 1201,A INFO Database action ended - OK
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

Corrective Maintenance

1117 - Database action ended - FAIL

A local database backup or restore has unsuccessfully completed. This UIM follows the issue of the **chg-db** command.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0  
0147.1117 CARD 1201,A INFO Database action ended - FAILED
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1118 - Audit of LNP backup database completed

The LNP backup database audit cycle has been completed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1118 SYSTEM Audit of LNP backup database completed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1119 - LNP database audit - internal error

The LNPA task on either OAM is in an error state.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1119 CARD 1114 LNP - database audit - internal error
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. Reboot the OAM.
-
2. If the problem persists, contact the *Customer Care Center*, see page 1-12.
-

1120 - TRBL Queue is full:elements overwritten

This message indicates that more than 7 UIMs per second are being output. One or more might be lost.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1120 CARD 1113 INFO RBL Queue is full;elements overwritten
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1121 - LNP rcvd query from unknown CGPA PC

The LNP query receives a calling party point code that is not in the routing table. The system LNP subsystem normally sends a response back to the calling party PC in the query. The system did not respond to this query.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-04-18 19:00:11 EST EAGLE 31.3.0
0107.1121 CARD 1103,A1 INFO LNP rcvd query from unknown CGPA PC
SIO=03 OPC=003-252-000 DPC=000-071-000
CDPA: AI=10 SSN=05 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=12 PC=001-001-001 SSN=002
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Provision a route to the Calling Party Point Code using the `ent-dstn` and `ent-rte` commands.

1122 - LNP rcvd query with undefined TT/SERV

The LNP Query Subsystem received a message with an undefined Service. The Called Party Translation type in the incoming message determines the format of the MSU. This UIM can be issued when there is no LNP Service associated with the Translation Type of this MSU.

If the Translation Type of the MSU is provisioned as a Translation Type for LNPQS Service, the Eagle attempts to determine the actual LNP Service for this message by examining the OP CODE value. If the OP CODE does not match any supported by the Eagle Service (IN, AIN, IS-41), this UIM is issued.

This UIM can also be issued as a result of an error response from an end office because the Eagle LNP database response returned an LRN that was not provisioned in the end office.

Trace tools and/or the hex dump in the UIM can be used to determine the TCAP information. Note that the GTT data is not contained in the SCCP layer because the Eagle does not return this information in the LNP response to the end office.

Example

```

RLGHNCXA21W 00-04-18 19:00:11 EST EAGLE 31.3.0
0107.1122 CARD 1103,A1 INFO LNP rcvd query with undefined TT/SERV
SIO=03 OPC=003-252-000 DPC=000-071-000
CDPA: AI=10 SSN=05 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=12 PC=001-001-001 SSN=002
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

Corrective Maintenance

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the IN, AIN, IS-41, PCS 1900, or LNPQS LNP Query translation type has not been provisioned, it needs to be provisioned using the **ent-lnp-serv** command.

If any of the above LNP Query Translation Types has not been provisioned, it can be changed using the **chg-lnp-serv** command.

2. If the Translation Type has been provisioned correctly, an SSP node in the network is using the wrong Translation Type or an invalid query.
-

1123 - LNP rcvd query with Message Relay TT

The LNP Query Subsystem received a message with a Translation Type reserved for Message Relay. This happens if another node sent a message to the system for Message Relay with the routing indicator set to rt-on-ssn and ssn set to system's LNP subsystem.

Example

```
RLGHNCXA21W 00-04-18 19:00:11 EST EAGLE 31.3.0
0107.1123 CARD 1103,A1 INFO LNP rcvd query with Message Relay TT
SIO=03 OPC=003-252-000 DPC=000-071-000
CDPA: AI=10 SSN=05 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=12 PC=001-001-001 SSN=002
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

1124 - LNP Database IMPORT started

The database import operation has started on the active or standby OAM.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1124 CARD 1113 LNP Database IMPORT started
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1125 - GWS rcvd CDPA that could not be RDCTd

This message indicates the EAGLE 5 ISS received an MSU, with a called party address (CDPA) that is not allowed in gateway screening (GWS) and cannot be redirected.

Example

```
RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1125 CARD 1205,B INFO GWS rcvd CDPA that could not be RDCTd
SIO=0a OPC=003-244-000 DPC=000-071-000
SCCP MT= 18
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=123456789012345678909
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=123456789012345678909
SR=scrib LSN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this called party address (CDPA) is one that should be redirected through the network, add the CDPA to the gateway screening (GWS) tables assigned to the link reporting this message. Use the `chg-scr-cdpa` command to add the CDPA to the list of allowed CDPA codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a CDPA to GWS.
 2. If the CDPA should not be redirected through the network, no action is necessary.
-

1126 - GWS rcvd CGPA that could not be RDCTd

This message indicates the EAGLE 5 ISS received an MSU, with a calling party address (CGPA) that is not allowed in gateway screening (GWS) and cannot be redirected.

Example

```

RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1126   CARD 1205,B INFO GWS rcvd CGPA that could not be RDCTd
           SIO=0a  OPC=003-244-000 DPC=000-071-000
           SCCP MT= 18
           CDPA:  AI=10  PC=003-003-003  SSN=005  TT=250
                   ADDR=123456789012345678909
    
```

Corrective Maintenance

```
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=123456789012345678909
SR=scrbl SN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this calling party address (CGPA) is one that should be redirected through the network, add the CGPA to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **chg-scr-cgpa** command to add the CGPA to the list of allowed CGPA codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a CGPA to GWS.
 2. If the CGPA should not be redirected through the network, no action is necessary.
-

1127 - GWS rcvd AFTPC that could not be RDCTd

This message indicates the EAGLE 5 ISS received an MSU, with an allowed affected point code (AFTPC) that is not allowed in gateway screening (GWS) and cannot be redirected.

Example

```

RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1127 CARD 1205,B INFO GWS rcvd AFTPC that could not be RDCTd
SIO=0a OPC=003-244-000 DPC=000-071-000
SCCP MT= 18
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=123456789012345678909
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=123456789012345678909
SR=scrib LSN=A1234567

```

Four outputs are possible.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

Corrective Maintenance

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this calling allowed affected point code (AFTPC) is one that should be redirected through the network, add the AFTPC to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **chg-scr-aftpc** command to add the AFTPC to the list of allowed AFTPC codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a AFTPC to GWS.
 2. If the AFTPC should not be redirected through the network, no action is necessary.
-

1128 - GWS rcvd TT that could not be RDCTd

This message indicates the EAGLE 5 ISS received an MSU, with a translation type (TT) that is not allowed in gateway screening (GWS) and cannot be redirected.

Example

```
RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
```

```

0101.1128   CARD 1205,B  INFO   GWS rcvd TT that could not be RDCTd
            SIO=0a   OPC=003-244-000  DPC=000-071-000
            SCCP MT=  18
            CDPA:  AI=10  PC=003-003-003  SSN=005  TT=250
                    ADDR=123456789012345678909
            CGPA:  AI=10  PC=004-004-004  SSN=005  TT=251
                    ADDR=123456789012345678909
            SR=scrib   LSN=A1234567
    
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this TT is one that should be redirected through the network, add the TT to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **chg-scr-tt** command to add the TT to the list of allowed TT codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a TT to GWS.
 2. If this TT should not be redirected through the network, no action is necessary.
-

1129 - Ported subs SMSC matches Home SMSC Addr

This message indicates that a ported out subscriber is fraudulently attempted to send SMS using the old networks SMSC. An error message was generated and returned to the originating MSC.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1129 CARD 1103,A1 INFO Ported subs SMSC matches Home SMSC Addr
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1130 - LOCREQ rcvd - IS412GSM not provisioned

The system received an IS-41 LOC Request message for which it attempted to issue a LOC Request response. However, G-Port found the IS-41 to GSM Migration prefix (specified by the IS412GSM parameter) is not provisioned on this system. With this UIM, G-Port is notifying the operator it cannot process the LOCREQ messages and is allowing it to fall through to the GTT for handling.

To be able to perform the IS-41 to GSM Migration feature and to accept LOC Request messages, you must first specify the IS412GSM prefix in GSMOPTS.

Example

```

RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1130 CARD 1103,A1 INFO LOCREQ rcvd - IS412GSM not provisioned
      SIO=03  OPC=001-001-001      DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004

```


LSN=A1234567

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the `rtrv-gsmopts` command to display the IS412GSM setting in the GSM System Options. Following is an example of the output:

```
rlghncxa03w 03-05-20 09:04:14 EST EAGLE 30.1.0
GSM OPTIONS
-----
```

```

DEFMCC      = NONE
DEFMNC      = NONE
SRFADDR     = 123456789abcdef
MSRNDIG     = RN
DEFMAPVR    = 1
SRIDN       = TCAP
IS412GSM    = 0123456789abcde

```

```

rlghncxa03w 03-03-20 09:04:14 EST EAGLE 30.1.0
SRFADDR=123456789abcdef SRFNAI=7 SRFNP=15
MSRNDIG=CCRNDN
MSRNNAI=7 MSRNNP=15 DEFMAPVR=2

```

;

This example shows a setting supporting the IS-41 LOC Request message. If the IS412GSM parameter is not specified, proceed to step 2. However, if it is set with a valid value, proceed to the step 3.

2. Use the **chg-gsmopts** command to specify the IS-41 to GSM migration prefix. Refer to the *Commands Manual* for details. Then re-issue the command that caused this UIM.
3. If the problem persists with the IS412GSM parameter specified, contact the *Customer Care Center*, see page 1-12.

1131 - Invalid digits in IS41 MAP Digits parm

A LOC Request message contained invalid data and will be passed to the GTT. G-Port determined a received Location Request message had invalid data in the called party number parameter fields. The verified fields must contain:

- Digits: from 5 to 21 digits
- Encoding scheme: BCD
- Numbering plan: Telephony

Example

```

RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 31.3.0
0112.1131 CARD 1103,A1 INFO Invalid digits in IS41 MAP Digits parm
SIO=03 OPC=001-001-001 DPC=002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
LSN=A1234567

```

Corrective Maintenance

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1132 - SLAN DLK ping test completed

This message indicates that the manual TCP/IP ping test has completed. The ping test is initiated by the **tst-dlk** command.

Example

```

RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1132 CARD 1201 INFO SLAN DLK ping test completed.
TESTS REQUESTED= 0 PASSED COUNT=0 FAILED COUNT =00
AVR RND TRIP=0 MAX RND TRIP=06 MIN RND TRIP=0 HOST IPADDR =194.4.201.50

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. If the test passes with FAILED COUNT = 00, no further action is necessary.
-
2. If the test fails:
 - a. confirm that IP addresses are correct
 - b. confirm with the end user that their equipment and software is up and functioning properly
 - c. have the end user check their network and their cable connections
 - d. check the cable connections at the EAGLE 5 ISS
 - e. contact the *Customer Care Center*, see page 1-12.
-

1133 - GX25 outbound data exceeds packet size

This message indicates that the packet being converted by the X.25 gateway is too long to be handled by the X.25 network (when a network is used) or the link when there is a direct connection to the X.25 end user.

Example

```

RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1133 CARD 1201,A INFO GX25 outbound data exceeds packet size
CHANNEL=00 X_ADDR=841029159765432
CODE=A2 00 PC=116-006-001

```

Corrective Maintenance

Legend

CHANNEL. Logical channel

CODE. Left byte is length of TCAP packet in hexadecimal format; right byte is always 00.

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this condition occurs often, change the packet size to 256. This packet size change must take place at both the end user and the EAGLE 5 ISS.

At the EAGLE 5 ISS end of the X.25 link, use the `chg-x25-s1k` command to change the packet size.

2. If the fault is not cleared contact the *Customer Care Center*, see page 1-12.
-

1134 - GX25 route not found

This message indicates that the X.25 gateway was unable to find an X.25 route for an outgoing MSU or an incoming X.25 call request.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1134 CARD 1201,A INFO GX25 route not found
CHANNEL=00 X_ADDR=841029159765432
CODE=00 00 PC=116-006-001
```

Legend

CHANNEL. Logical channel

CODE. Left byte is length of TCAP packet in hexadecimal format; right byte is always 00.

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Determine if both ends, as defined by their point codes and addresses, are permitted a connection. If so, a route needs to be defined. Use the `ent-x25-rte` command to define and configure the route. Refer to the *Database Administration Manual* for information about this procedure.

 2. If the end points are not permitted a connection: 1) require that the X.25 end user (as defined by the PC= value) place the call with the correct X.25 address for the configured route, or 2) require that the SS7 end user (as defined by the X_ADDR= value) use the correct point code for the configured route.

 3. If the fault is not cleared contact the *Customer Care Center*, see page 1-12.
-

1135 - GX25 route not available

This message indicates that an X.25 route is not available for routing an MSU received from the SS7 end user. This should be a temporary condition following a failure at the X.25 end user. See messages 1143, 1144, and 1145.

Example

```

RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1135     CARD 1201,A  INFO  GX25 route not available
              CHANNEL=03      X_ADDR=0000000000000000
              CODE=02 00      PC=116-006-001

```

Legend

CHANNEL. Logical channel

CODE. Left byte is length of TCAP packet in hexadecimal format; right byte is always 00.

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Determine why the X.25 end user, as defined by the PC value, is out of service and attempt to re-establish the service.
 2. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.
-

1136 - GX25 route already connected

This message indicates that a call request was received from an X.25 end user and the X.25 route was already in the call established phase. Both connections are cleared to assure that only one connection is established at a time.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1136 CARD 1201,A INFO GX25 route already connected
CHANNEL=00 X_ADDR=84102915841029159765432
CODE=00 00 PC=116-006-001
```

Legend

CHANNEL. Logical channel

CODE. Left byte is length of TCAP packet in hexadecimal format; right byte is always 00.

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

If this fault reoccurs for this route:

1. Inform the X.25 end user, as defined by the X_ADDR value, to not permit this condition.

2. Use the **rtrv-x25-rte** command to verify that the *thetype* of route is correct.

3. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.

1137 - GX25 incorrect X25 address

This message indicates that an X.25 end user attempted to make a connection and either the called or calling X.25 address was not in the correct domain for conversion.

Example

```

RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1137    CARD 1201,A  INFO  GX25 incorrect X.25 address
              CHANNEL=00      X_ADDR=84102915841029159765432
              CODE=01 00      PC=000-000-000

```

Legend

CHANNEL. Logical channel

CODE. X.25 packet type:

- Left byte:
 - 00 = incorrect calling address
 - 01 = incorrect called address
 - Bits:
 - bit 0 = unused (LSB)
 - bit 1 = unused
 - bit 2 = registration packet
 - bit 3 = interrupt packet
 - bit 4 = diagnostic packet
 - bit 5 = M-bit present
 - bit 6 = Q-bit present
 - bit 7 = D-bit present
- Right byte is always 00

Corrective Maintenance

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify that the X.25 address (the X_ADDR= value) is correct.

2. If the X.25 address is not correct, advise the X.25 end user to use the correct address.

3. If the X.25 address is correct, the domain of the point code needs to be changed and the X.25 route redefined. The calling address must be in the X.25 network domain and the called address must be in the SS7 domain.

4. If the fault is not cleared, contact the *Customer Care Center*, see page 1-12.

1138 - GX25 unsupported packet type received

This message indicates that an unsupported packet type was received.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1138 CARD 1201,A INFO GX25 unsupported packet type received
CHANNEL=00 X_ADDR=0000000000000000
CODE=10 00 PC=-----
```

Legend

CHANNEL. Logical channel

CODE. X.25 packet type:

- Left byte (X.25 packet type):
 - 00= DTE clear
 - 01= number busy

- 03= invalid facility request
- 05= network congestion
- 09= out of order
- 11= incorrect called address
- 13= local procedure error
- 19= collect call refused
- 21= incompatible destination
- 29= fast select not subscribed
- 0D= not in service
- 0B= access barred
- F0= call rejected
- Right byte (X.25 reject reason when left byte = F0, 01)
 - 00= timeout
 - 02= internal
 - 03= collision
 - 04= rejected
 - 07= no LCN
- Right byte (when left byte is 1/4 F0) = X.25 call clear diagnostic codecode

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If problem persists, the X.25 end user may need to change the X.25 parameters to prevent transmission of the unsupported packet types. If the X.25 communications go through a network, the parameters may need to be changed on the network.
 2. If the fault is not cleared, use the **rept-x25-meas** command and then contact the *Customer Care Center*, see page 1-12.
-

1139 - GX25 unsupported MSU type received

This message indicates that an unsupported MSU type was received and the MSU was discarded. Only MSUs with an SIO of x0, x1, x2, or x3 are supported.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1139 CARD 1201,A INFO GX25 unsupported MSU type received
CHANNEL=00 X_ADDR=011900040078
CODE=85 01 PC=116-006-001
```

Legend

CHANNEL. Logical channel

CODE. SIO field value

- Left byte = SIO field value
- Right byte = SCCP message type when
 - SIO=03 (SCCP data)
 - SIO=83 (SCCP data)
- Right byte = H0H1 when
 - SIO=x0, x1, x2

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Determine if the point code, as defined by the PC value, should be an X.25 end user.

2. If yes, advise the SS7 end user, as defined by the X_ADDR= value, that they are transmitting unsupported MSU types.

3. If not, correct the MTP routing to prevent routing to this link.

4. If the fault is not cleared, use the **rept-x25-meas** command and then contact the *Customer Care Center*, see page 1-12.

1140 - GX25 DPC not defined

This message indicates that an MSU was received for which the destination point code (DPC) is not defined for X.25 conversion.

Example

```

RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1140     CARD 1201,A  INFO  GX25 DPC not defined
              CHANNEL=00      X_ADDR=0000000000000000
              CODE=00 00      PC=116-006-001

```

Legend

CHANNEL. Logical channel

CODE. X.25 packet type

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Determine if the point code, as defined by the PC= value, should be an X.25 end user.

2. If yes, correct the configuration using the **ent-x25-dstn** command (to define the X.25 end user) and the **ent-x25-rte** command (to define an X.25 route).

3. If not, correct the MTP routing to prevent routing to the X.25 link set.

1141 - GX25 unrecognized X25 calling address

This message indicates that the gateway has detected an unrecognized X.25 calling address in a call request packet.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1141 CARD 1201,A INFO GX25 unrecognized X25 calling address
CHANNEL=03 X_ADDR=84102915
CODE=00 00 PC=000-000-000
```

Legend

CHANNEL. Logical channel

CODE. left byte - length of TCAP packet in hexadecimal format right byte - always 00.

PC. Point code for the SS7 end user (OPC). Use the **rtrv-x25-dstn** command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the **rtrv-x25-dstn** command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the caller, as defined by the `X_ADDR=` value, is a valid X.25 end user, define the destination using the `ent-x25-dstn` command and define any needed routes using the `ent-x25-rte` command.

2. If the caller is not a valid X.25 end user, contact sender and determine why a connection was attempted.

3. If the fault is not cleared, use the `rept-x25-meas` command and then contact the *Customer Care Center*, see page 1-12.

1142 - GX25 unrecognized X25 called address

This message indicates that the Gateway has detected an unrecognized X.25 called address in a call request packet.

Example

```

RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1142     CARD 1201,A  INFO GX25 unrecognized X25 called address
              CHANNEL=03      X_ADDR=84102915
              CODE=00 00      PC=116-006-001

```

Legend

CHANNEL. Logical channel

CODE. X.25 packet type

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Determine if the called address, as defined by the X_ADDR value, is a valid address for an SS7 end user.

2. If yes, define the destination and route using the **ent-x25-dstn** and **ent-x25-rte** commands. Refer to the *Database Administration Manual - Features* for more information about this procedure.

3. If not, advise the X.25 end user, as defined by the PC value, to specify the correct address.

4. If the fault is not cleared, use the **rept-x25-meas** command and then contact the *Customer Care Center*, see page 1-12.

1143 - GX25 cannot make connection

This message indicates that the X.25 gateway cannot make the desired connection. See also messages 1135 and 1144.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1143 CARD 1201,A INFO GX25 cannot make connection
CHANNEL=03 X_ADDR=84102915
CODE=09 00 PC=116-006-001
```

Legend

CHANNEL. Logical channel

CODE. X.25 packet type:

- Left byte (X.25 packet type):
 - 00= DTE clear
 - 01= number busy
 - 03= invalid facility request
 - 05= network congestion
 - 09= out of order
 - 11= incorrect called address
 - 13= local procedure error

- 19= collect call refused
- 21= incompatible destination
- 29= fast select not subscribed
- 0D= not in service
- 0B= access barred
- F0= call rejected
- Right byte (X.25 reject reason when left byte = F0, 01)
 - 00= timeout
 - 02= internal
 - 03= collision
 - 04= rejected
 - 07= no LCN
- Right byte (when left byte is 1/4 F0) = X.25 call clear diagnostic code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtrv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Examine the CODE data field in the message (see description below) for a possible fault explanation.

2. Verify that the X.25 end user is in service and attempt to re-establish service.

3. Verify that the X.25 addresses of the two nodes (given by X_ADDR and PC values in the message) are in agreement at both the X.25 end user and at the SS7 end user. Use the `rtrv-x25-dstn` command to determine an X.25 address that corresponds to a SS7 point code and vice versa.

Corrective Maintenance

4. Use the **rept-x25-meas** command to obtain more information about the X.25 links. If this information does not point to a resolution of the problem, go to the next action item.
-

5. Contact the *Customer Care Center*, see page 1-12.
-

1144 - GX25 logical channel cleared

This message indicates that the X.25 gateway had a route connection cleared. Also see message 1135.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1144 CARD 1201,A INFO GX25 logical channel cleared
CHANNEL=00 X_ADDR=84102915
CODE=09 00 PC=116-006-001
```

Legend

CHANNEL. Logical channel

CODE. X.25 packet type:

- Left byte (X.25 packet type):
 - 00= DTE clear
 - 01= number busy
 - 03= invalid facility request
 - 05= network congestion
 - 09= out of order
 - 11= incorrect called address
 - 13= local procedure error
 - 19= collect call refused
 - 21= incompatible destination
 - 29= fast select not subscribed
 - 0D= not in service
 - 0B= access barred
 - F0= call rejected
- Right byte = diagnostic code

PC. Point code for the SS7 end user (OPC). Use the `rtv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify from the adjacent X.25 node if this indicates a problem or if it is a normal state of routinely clearing the call.
-
2. If is a problem, and the problem continues, use the `rept-x25-meas` command and contact the *Customer Care Center*, see page 1-12.
-

1145 - GX25 unexpected restart received

This message indicates that the X.25 gateway has received an unexpected restart packet. A restart packet causes all active connections to be cleared and indicates that the X.25 network or, in the case of a direct X.25 connection, the X.25 end user has restarted and reset X.25 level 3.

Example

```

RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1145    CARD 1201,A  INFO  GX25 unexpected restart received
              CHANNEL=00  X_ADDR=0000000000000000
              CODE=03 00  PC=000-000-000

```

Legend

CHANNEL. Logical channel

CODE. X.25 packet type

PC. Point code for the SS7 end user (OPC). Use the `rtv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

X_ADDR . The X.25 address for the X.25 end user (destination). Use the `rtv-x25-dstn` command to determine the point code that corresponds to this X.25 address.

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Contact the X.25 end user or X.25 network provider, as appropriate.
 2. If restarts continue, use the **rept-x25-meas** command and then contact the *Customer Care Center*, see page 1-12.
-

1146 - REPT-XLST-TIMO: X-LIST entry expired

This message indicates that the timer has expired for an x-list entry and that entry has been removed.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1146 CARD 1201 INFO REPT-XLST-TIMO:X-LIST entry expired
DPC=001-001-001
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

1147 - MTP Invalid TFA received

This message indicates the network elements of an adjacent node have not been configured properly.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1147 CARD 1201,A INFO MTP Invalid TFA received
OPC=001-001-001 CPC=002-002-002
LSN=lsn01a
```

Legend

CPC. Capability point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

Alarm Level: No alarm condition. The message is informational only.

Recovery

Notify the craftsperson at the adjacent node of this error.

1148 - MTP Invalid TFR received

This message indicates the network elements of an adjacent node have not been configured properly.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0
0147.1148 CARD 1201,A INFO MTP Invalid TFR received
OPC=001-001-001 CPC=002-002-002
LSN=lsn01a
```

Legend

CPC. Capability point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

Alarm Level: No alarm condition. The message is informational only.

Recovery

Notify the craftsperson at the adjacent node of this error.

Corrective Maintenance

1149 - SLK Level-3 T19 timer expired

The link has been down for 5 minutes or the timer T19 has timed out.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0  
0147.1149 CARD 1201,A INFO SLK Level-3 T19 timer expired
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Activate measurements using the **chg-meas:collect=on** command. This starts measurements collection.
2. If the link is placed OOS-MT, use the measurements collected over the appropriate time period to determine the cause, and determine which action is now necessary.

NOTE: See Chapter 4, "Measurements," for traffic measurements information.

1150 - SLK Inhibit Denied

The request to inhibit the link has been denied by the far end.

Example

```
RLGHNCXA21W 00-06-18 19:12:00 EST EAGLE 31.3.0  
0147.1150 CARD 1201,A INFO SLK Inhibit Denied
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Inhibiting the link would cause the far end to prohibit the point code.

1151 - SLK Inhibit Response Timeout

The system has sent a link inhibit request, but no inhibit acknowledge was received.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1151 CARD 1205,A nc00027 SLK Inhibit Response Timeout
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Try the inhibit command again. If still unsuccessful, contact the far-end office and verify the status.

1152 - SLK Uninhibit Denied

The far end has denied the craftsperson's request to uninhibit the link.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1152 CARD 1205,A nc00027 SLK Uninhibit Denied
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the far end office to determine why this was denied.

1153 - SLK Uninhibit Response Timeout

An uninhibit request was sent, but an uninhibit acknowledge was not received.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1153 CARD 1205,A nc00027 SLK Uninhibit Response Timeout
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Try the uninhibit request again. If still unsuccessful, contact the far-end.

1154 - MSU reception threshold exceeded

This UIM is produced by the OAM. It is produced whenever the cumulative count of MSUs received on a given linkset exceeds the specified MSU_recvd_threshold within a specified time period.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1154 SYSTEM INFO MSU reception threshold exceeded
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

1155 - GWS MSU discard threshold exceeded

This UIM is produced by the OAM. It is produced whenever the cumulative count of MSUs discarded due to gateway screening on a given linkset exceeds the specified MSU_reject_threshold within a specified time period.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1155 SYSTEM INFO GWS MSU discard threshold exceeded
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

1156 - ISCC loopback success

The loop to transmit and receive data on the ISCC chip was successful.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1156 SLK 1205,A nc00027 ISCC loopback success
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1157 - ISCC loopback failed

The loop to transmit and receive data on the ISCC chip was no successful.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1157 SLK 1205,A nc00027 ISCC loopback failed
```

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action necessary.

1158 - ISCC loopback aborted

The loop test to transmit and receive data on the ISCC chip was aborted because the request to activate link was received while running a loopback test.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1158 SLK 1205,A nc00027 ISCC loopback aborted
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1159 - ISCC loopback in progress

A loopback test request was received while the same loopback test is already in progress.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1159 SLK 1205,A nc00027 ISCC loopback in progress
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1160 - GWS rcvd ISUP that is not allowed

This message indicates gateway screening (GWS) has discarded an MSU because the ISUP is listed as one that is not allowed in this network.

Example

```

RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1160 CARD 1205,A INFO GWS rcvd ISUP that is not allowed
          SIO=0a   OPC=003-247-000 DPC=002-000-000
          DATA=12 34 56 78 90 12 34 56 78 90 12 34
                   56 78 90 12 34 56 78 90 12 34 56 78
          SR=scrib LSN=A1234567

```

Legend

CPC. Capability point code

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. This indicates that a MSU was discarded because it failed screening. No action is necessary, unless the MSU should have passed. If the MSU should have passed (verified by the fields displayed in the above message), go to step 2.
-
2. Using the **rtrv-scr-sio** command, verify that the screening reference specified in the above message does not allow MSUs with the priority value indicated.
-
3. If the MSU should have passed screening, use the **chg-scr-sio** command to add the pri data to the screening reference.
-

1161 - GWS rcvd nonSNM DESTFLD screening msg

This message indicates gateway screening (GWS) received a message that is not a MTP network management message. Affected Destination (DESTFLD) screening makes sense only for MTP Network Management (SNM) messages. When a non-SNM message is screened for Affected Destination, it is forced to pass screening and this message is generated.

Example

```
RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1161 CARD 1103,A INFO GWS rcvd ISUP nonSNM DESTFLD screening msg
      SIO=0a   OPC=003-247-000   DPC=002-000-000
      DATA=12 34 56 78 90 12 34 56 78 90 12 34
                56 78 90 12 34 56 78 90 12 34 56 78
      SR=scrib  LSN=A1234567
```

Legend

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

1162 - GWS rcvd nonSCCP CGPA/CDPA screen msg

This message indicates that a message that was not a SCCP message passed CGPA/CDPA screening. CDPA or CGPA screening makes sense only for SCCP messages. When a non-SCCP message is screened for CDPA or CGPA, it is forced to pass screening and this message is generated

Example

```

RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1162 CARD 1103,A INFO GWS rcvd nonSCCP CGPA/CDPA screen msg
      SIO=0a   OPC=003-247-000   DPC=002-000-000
      DATA=12 34 56 78 90 12 34 56 78 90 12 34
                56 78 90 12 34 56 78 90 12 34 56 78
      SR=scrib  LSN=A1234567

```

Legend

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

1163 - GWS rcvd invalid GTI in TT screening

This message indicates that a message that was not a SCCP message or an SCCP message that does not contain a TT passed the Allowed TT screening. Allowed TT screening makes sense only for SCCP messages that contain TT. When a non-SCCP message or a SCCP message that does not contain a TT is screened for Allowed TT, it is forced to pass screening and this message is generated.

Example

```

RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1163 CARD 1103,A INFO GWS rcvd invalid GTI in TT screening
      SIO=0a   OPC=003-247-000   DPC=002-000-000
      DATA=12 34 56 78 90 12 34 56 78 90 12 34
                56 78 90 12 34 56 78 90 12 34 56 78
      SR=scrib  LSN=A1234567

```

Corrective Maintenance

Legend

CPC. Capability point code

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

No further action is necessary.

1164 - Inh LNP SS request already outstanding

An **inh-map-ss** command is already entered and queued.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1164 SYSTEM INFO Inh LNP SS request already outstanding
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1165 - Failure Inhibiting LNP SS

The **inh-map-ss** command did not take the LNP subsystem off-line.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1165 SYSTEM INFO Failure Inhibiting LNP SS
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the **inh-map-ss** command with the force parameter.

1166 - ACG Node Overload Level Change

The *SCM* has detected that the node overload level for the system has changed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1166 SYSTEM INFO ACG Node Overload Level Change
OLD ACG LEVEL= 0 NEW ACG LEVEL= 10
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1167 - LNP database audit is disabled

The LNP database audit has been disabled. The following example will be output every 60 minutes to all LNP terminals.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1167 SYSTEM INFO LNP database audit is disabled
```

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the following command to restore the LNP audit

```
chg-lnpopts:aud=on
```

1168 - Audit of LNP database completed

The LNP database audit cycle has been completed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1168     SYSTEM      Audit of LNP databases completed
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1169 - SCCP rcvd inv TCAP portion

SCCP received a message with a Transaction Capabilities Application Part (TCAP) that is unsupported or not valid.

Example

```
RLGHNCXA21W 00-04-18 19:02:12 EST EAGLE 31.3.0
0113.1169     CARD 1103,A1  INFO  SCCP rcvd inv TCAP portion
              SIO=0a   OPC=004-009-000  DPC=002-000-000
              CDPA:  AI=10  SSN=005  TT=250
              ADDR=ABCDEF1234567890ABCDE
              CGPA:  AI=12  PC=001-001-001  SSN=002
              DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
                   2e cf 01 00 d0 02 83 01 f2 25 aa 0b
                   84 09 01 00 11 0a 19 49
              LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

SR. Screening reference name

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This UIM can be generated by features LNP MR or GSM MAP Screening as defined in the following table.

Table 3-25. Feature Settings

LNP MR	GSM Map Screening	Description
On	Off	SCCP discarded a message. No action is necessary.
Off	On	GSM MAP Screening does not discard the MSU. The action provisioned in the GSMDECERR parameter in the STPOPTS table is performed. No action is necessary.
On	On	The TCAP Package Type from the DATA portion of the UIM must be decoded to determine which feature generated the message. <ul style="list-style-type: none"> • If ANSI TCAP (IS41), then LNP MR generated the message. See the LNP MR description above. • If ITU TCAP (GSM), then GSM MAP Screening generated the message. See the GSM MAP screening description above.

1170 - Loopback prevented

This loopback requires the transmission of a byte oriented code. No byte oriented code was transmitted.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1170 CARD 1201 INFO Loopback prevented
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter valid parameters when setting up loopback.

1171 - Loopback invalid

The loopback setup was not performed because invalid parameters were provided.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1171 CARD 1201 INFO Loopback invalid
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter valid parameters when setting up loopback.

1172 -REPT-OVSZMSG: MTP MSU too large to rte

An oversized MTP MSU was received and discarded.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1172 CARD 1103 INFO REPT-OVSZMSG: MTP MSU too large to rte
LEN=279 SIO=03 DPC=001-001-001 OPC=002-002-002
LSN=A1234657
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1173 -REPT-OVSZMSG: SCCP MSU too large to rte

An oversized SCCP MSU was received and discarded.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1173 CARD 1103,A2 INFO REPT-OVSZMSG: SCCP MSU too large to rte
      LEN=279
      SIO=03   OPC=002-002-002   DPC=001-001-001
      SCCP MT=004
      CDPA: AI=8B PC=003-003-003 SSN=005 TT=250
            ADDR=ABCDEF0123456789ABCDE
      CGPA: AI=8B PC=004-004-004 SSN=006 TT=251
            ADDR=919460365512345678912
      LSN=A1234657
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

LEN. Data length

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SCCP MT. SCCP message type

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1174 - Inh Local SS request alrdy outstanding

An **inh-map-ss** command is already entered and queued.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1174  SYSTEM  INFO  Inh Local SS request alrdy outstanding

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1175 - Failure Inhibiting Local SS

The **inh-map-ss** command did not take the local subsystem off-line.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1175  SYSTEM  INFO  Failure Inhibiting Local SS

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the **inh-map-ss** command with the force parameter.

1176 - LNP Subscription ref's DPC w/ 0 routes

The system has received a provisioned subscription from the NPAC and has no route for the DPC.

Example

```

RLGHNCXA21W 00-04-18 19:02:12 EST EAGLE 31.3.0
0113.1176  SYSTEM  INFO  LNP subscription ref's DPC w/ 0 routes
                TN=9194605500  LRN=1234567890
                DPC(s)=005-022-019  007-021-067  004-016-200
                004-016-200  007-021-067  005-022-019

```

Corrective Maintenance

Legend

DPC. Destination point code

LRN. Called party address.????

TN. Telephone number

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1177 - Cnvrsn Discard: SCCP MSU too large

An SCCP MSU received was too large and discarded.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1177 CARD 1103,A2 INFO Cnvrsn Discard: SCCP MSU too large
      LEN=279
      SIO=03   OPC=002-002-002   DPC=001-001-001
      SCCP MT=004
      CDPA: AI=8B PC=003-003-003 SSN=005 TT=250
            ADDR=ABCDEF0123456789ABCDE
      CGPA: AI=8B PC=004-004-004 SSN=006 TT=251
            ADDR=919460365512345678912
      LSN=A1234657
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

LEN. Data length

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SCCP MT. SCCP message type

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1178 - Conversion Discard: Invalid SCCP msg type

This message indicates the STP received a message type that has no equivalent in the opposite protocol.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0110.1178 CARD 1205,B INFO Conversion Discard: Invalid SCCP msg type
      SIO=0e OPC=4-013-1      DPC=1-003-0
      MSG TYPE=004
      LSN=A1234657
```

Legend

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

OPC. Origination point code

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1179 - Cnvrsn Discard: CGPA PC alias undefined

An SCCP MSU contained an undefined CGPA PC and was discarded.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1179 CARD 1103,A2 INFO Cnvrsn Discard: CGPA PC alias undefined
      LEN=279
      SIO=03   OPC=002-002-002   DPC=001-001-001
      SCCP MT=004
      CDPA: AI=8B PC=003-003-003 SSN=005 TT=250
            ADDR=ABCDEF0123456789ABCDE
      CGPA: AI=8B PC=004-004-004 SSN=006 TT=251
            ADDR=919460365512345678912
      LSN=A1234657
```

Legend

ADDR. Address

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

LEN. Data length

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SCCP MT. SCCP message type

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Perform one of the following actions:

- Enable the proper Discard CGPA PC STP Option, based on the network type of the incoming message. Refer to the *Database Administration Manual - Global Title Translation* for details.

OR

- Add the proper alias for the Calling Party Point Code corresponding to the destination network. Refer to the *Database Administration Manual - Global Title Translation* for details.
-

1180 - Conversion Discard: Aft. PC alias undefined

An SCCP MSU contained an undefined affected point code alias. The message was discarded.

Example

```

RLGHNCXA21W 00-04-18 19:04:15 EST EAGLE 31.3.0
0124.1180 CARD 1106 INFO Conversion Discard: Aft. PC alias undefined
SIO=0a OPC=004-031-000 DPC=000-071-000
SCMG: MSG TYPE=000 MSG LEN=003
AFTPC=004-219-000 AFTSS=000 MULT=000
LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG LEN. Message length

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

Add the proper alias for the Affected point code corresponding to the destination network. Refer to the *Database Administration Manual - Global Title Translation* for details.

1181 - Conversion Discard: Invalid SCMG msg type

An SCCP MSU contained an invalid SCCP management message (SCMG) and was discarded

Example

```
RLGHNCXA21W 00-04-18 19:04:15 EST EAGLE 31.3.0
0124.1181 CARD 1106 INFO Conversion Discard: Invalid SCMG msg type
          SIO=0a   OPC=004-031-000 DPC=000-071-000
          SCMG:   MSG TYPE=000      MSG LEN=003
```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG LEN. Message length

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1182 - Cnvrsn Discard - Invalid TCAP element

An invalid element has been detected.

Example

```

Station 1234 00-03-30 16:20:08 EST EAGLE 31.3.0
0018.1182 - CARD 1103,A INFO Cnvrsn Discard:Invalid TCAP element
SIO=03 OPC=001-001-001 DPC=002-002-002
LEN=037 SCCP MT=009
CGPA: AI=C3 PC=004-004-004 SSN=005 TT=053
      ADDR=ABCDEF0123456789ABCDE
PKG=E2 CMPNT=EA OFFSET=030 EXPECTED=OA ACTUAL=AO
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CMPNT. Component

DPC. Destination point code

LEN. Data length

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

PKG. Package

SCCP MT. SCCP message type

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action necessary.

1183 - Cnvrns Discard - Invalid TCAP elem't len

An element's length of contents field has received an element that extends beyond the end of its container element.

Example

```
Station 1234 00-03-30 16:20:08 EST EAGLE 31.3.0
0018.1183 CARD 1103,A INFO Cnvrns Discard: Invalid TCAP elem't len
      SIO=03 OPC=001-001-001 DPC=002-002-002
      LEN=037 SCCP MT=009
      CGPA: AI=C3 PC=004-004-004 SSN=005 TT=053
            ADDR=ABCDEF0123456789ABCDE
      PKG=E2 CMPNT=EA OFFSET=030 EXPECTED=OA ACTUAL=AO
      LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CMPNT. Component

DPC. Destination point code

LEN. Data length

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

PKG. Package

SCCP MT. SCCP message type

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1184 - Cnvrns Discard: Invalid SCCP elem't len

An element's length of contents field has received an element that extends beyond the end of its container element.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1184 CARD 1103,A2 INFO Cnvrns Discard: Invalid SCCP elem't len
      LEN=279
      SIO=03   OPC=002-002-002   DPC=001-001-001
      SCCP MT=004
      CDPA:  AI=8B  PC=003-003-003  SSN=005  TT=250
             ADDR=ABCDEF0123456789ABCDE
      CGPA:  AI=8B  PC=004-004-004  SSN=006  TT=251
             ADDR=919460365512345678912
      LSN=A1234657

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CMPNT. Component

DPC. Destination point code

LEN. Data length

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

PKG. Package

SCCP MT. SCCP message type

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1185 - GTI input clock anomalies detected

This message indicates additional high speed clock diagnostic data is available although the high speed clocks are valid.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0024.1185
      HS CLOCK      INFO      GTI input clock anomalies detected
      Reporting TDM Location      : 1114
      GTI Status Register      : 0xA3
      Primary LIU Violation Count : 200
      Secondary LIU Violation Count : 125
      Report Date:02-07-21 Time:16:20:19
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1189 - SCCP did not Route - DPC not in RTE Table

SCCP did not route a message because the destination point code (DPC) is not in the route (RTE) table. The message was discarded.

Example

```
tekelecstp 05-06-03 14:40:24 EST UNKNOWN ????.?-55.35.0
0114.1189 CARD 1103,A1 SCCP did not Route - DPC not in RTE Table
      TRANSLATED PC= 1-012-1 TRANSLATED SS=006
      SCCP MSG TYPE=04
```

```
CDPA: NI=0 RI=0 GTI=04 SSNI=1 PCI=0
      TT=007 NP=01 NAI=004 ADDR=123456789012345678901
      PC= ----- SSN=006
CGPA: NI=0 RI=0 GTI=04 SSNI=1 PCI=0
      TT=007 NP=01 NAI=004 ADDR=987654321098765432109
      PC= ----- SSN=006
LSN=A1234567 GTTSET=3 (8)
```

Legend

ADD. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

GTTSET. GTT Set Index

LSN. Linkset name

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

PC. Point code

PCI. Point code indicator

RI. Routing indicator

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

NOTE: If Global Title Translation is found, the GTTSET in which the translation is found appears. If Global Title Translation is not found, the GTTSET does not display.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Check the absence of the DPC in the Routing table by entering the appropriate DPC type (DPCA, DPCN, DPCN24, whichever is applicable). For example:

```
rtrv-rte:dpc=<ni-nc-ncm>
```

2. If routing to this destination is required, provision the Routing table. See *Chapter 2 - Configuring Destination Tables - Adding a Destination Point Code* in the *Database Administration Manual - SS7*.
 3. If routing to this destination is not required, remove the destination point code from the Routing table. See *Chapter 2 - Configuring Destination Tables - Removing a Destination Point Code* in the *Database Administration Manual - SS7*.
-

1190 - SCCP rcvd inv Clg Party - bad GT ind

The SCCP received a message from the network that was discarded because of a bad global title indicator in the calling party address and that GTT on CGPA is required.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 35.0.0
0112.1190 CARD 1103,A1 INFO SCCP rcvd inv Clg Party - bad GT ind
SIO=03 OPC= 001-001-001 DPC= 002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC= 003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC= 001-001-001 SSN=004
LSN=A1234567 GTTSET=3 203 46
```

Legend

ADD. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

GTTSET. GTT Set Index

LSN. Linkset name

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

PC. Point code

PCI. Point code indicator

RI. Routing indicator

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

NOTE: If Global Title Translation is found, the GTTSET in which the translation is found appears. If Global Title Translation is not found, the GTTSET does not display.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1191 - SCCP rcvd inv Clg Party - bad Selectors

The SCCP received a message from the network requiring CGPA GTT, but the Enhanced GTT could not find a CGPA GTT set using the CGPA GTT selectors from the message.

Example

```

RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 35.0.0
0112.1191 CARD 1103,A1 INFO SCCP rcvd inv Clg Party - bad Selectors
SIO=03 OPC= 001-001-001 DPC= 002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC= 003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=02 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC= 001-001-001 SSN=004
    
```


LSN=A1234567 GTTSET=3 203 46

Legend

- ADD. Address
- CDPA. Called party address
- CGPA. Calling party address
- GTL. Global title indicator
- GTTSET. GTT Set Index
- LSN. Linkset name
- NAI. Nature of address indicator
- NI. Network indicator value
- NP. Numbering plan
- PC. Point code
- PCI. Point code indicator
- RI. Routing indicator
- SSN. Subsystem number
- SSNI. Subsystem number indicator
- TT. Translation type
- TRANSLATED PC. Translated point code
- TRANSLATED SS. Translated subsystem

NOTE: If Global Title Translation is found, the GTTSET in which the translation is found appears. If Global Title Translation is not found, the GTTSET does not display.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This UIM indicates that Enhanced GTT was attempted, but the GTT selectors lookup failed. GTT selectors are GTI & TT (along with NP & NAI for ITU MSUs with GTI=4). If this MSU should have been routed, continue to Step 2.
-

- Use the following command to check whether GTT selectors in the arrived MSU are provisioned in the GTTSEL table:

```
rtrv=gttsel
```

- If the GTTSEL table does not have an entry with the GTT selectors in the arrived MSU, use the following command to add a record with the GTT selectors in the arrived MSU to the GTTSEL table.

```
ent-gttsel
```

1192 - SCCP translation found: XLAT=UDTS

GTT is found with a UDTS action.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
  0018.1192 CARD 1103,A      INFO  SCCP translation found:XLAT=UDTS
      SIO=03  OPC=  001-001-001  DPC=  002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=   003-003-003  SSN=005
      CGPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=   001-001-001  SSN=004
      LSN=A1234567  GTTSET=3 (8)
```

Legend

ADD. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

GTTSET. GTT Set Index

LSN. Linkset name

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

PC. Point code

PCI. Point code indicator

RI. Routing indicator

Corrective Maintenance

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

NOTE: If Global Title Translation is found, the GTTSET in which the translation is found appears. If Global Title Translation is not found, the GTTSET does not display.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1193 - SCCP translation found: XLAT=DISC

GTT is found with a DISCARD action.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1193 CARD 1103,A INFO SCCP translation found:XLAT=DISC
SIO=03 OPC= 001-001-001 DPC= 002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
TT=250 NP=04 NAI=010 ADDR=123456789012345678901
PC= 003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
TT=100 NP=07 NAI=012 ADDR=012345678901234567890
PC= 001-001-001 SSN=004
LSN=A1234567 GTTSET=3 (8)
```

Legend

ADD. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

GTTSET. GTT Set Index
LSN. Linkset name
NAI. Nature of address indicator
NI. Network indicator value
NP. Numbering plan
PC. Point code
PCI. Point code indicator
RI. Routing indicator
SSN. Subsystem number
SSNI. Subsystem number indicator
TT. Translation type
TRANSLATED PC. Translated point code
TRANSLATED SS. Translated subsystem

NOTE: If Global Title Translation is found, the GTTSET in which the translation is found appears. If Global Title Translation is not found, the GTTSET does not display.

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1195 - SCCP did not route - DPC/SS not in mapset

The SCCP did not route a message because the destination point code and destination subsystem was not in the mapset. The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0019.1195 CARD 1104,A    SCCP did not route - DPC/SS not in mapset
                        TRANSLATED PC=003-003-003  TRANSLATED SS=005
                        CDPA:  NI=1  RI=0  GTI=04  SSNI=1  PCI=1
                        TT=250  NP=04  NAI=010  ADDR=123456789012345678901
```

Corrective Maintenance

```
PC= 003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
TT=100 NP=07 NAI=012 ADDR=012345678901234567890
PC= 004-004-004 SSN=003
LSN=A1234567 GTTSET=3 (8)
```

Legend

ADD. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

GTTSET. GTT Set Index

LSN. Linkset name

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

PC. Point code

PCI. Point code indicator

RI. Routing indicator

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

NOTE: If Global Title Translation is found, the GTTSET in which the translation is found appears. If Global Title Translation is not found, the GTTSET does not display.

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the DPC/SS indicated in the message should not be routed to, no further action is necessary.
-
2. If the DPC/SS should be routed to from the EAGLE 5 ISS, use the following command to enter the DPC/SS into the mapset (obtained as outcome of GT translation, with which load sharing is desired) in the MAP table.

```
ent-map
```

1196 - IP Connection Congestion Timeout

This UIM indicates an M3UA or SUA association on the IPGWx GPL has been congested for 30 seconds. At the end of the 30 second period, the congested association is moved to the out-of-service state. All traffic buffered for the association is discarded, at which time this UIM message is displayed.

To prevent a M3UA or a SUA association from remaining congested forever, a 30 second timer is started when an association becomes congested. A separate timer is started for each association that becomes congested.

Approximately one second after the traffic has been discarded, the association is automatically allowed to accept incoming requests to reestablish the association. The timer is not configurable and is not displayed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0003.1196 CARD 1213,A INFO IP Connection Congestion Timeout
ANAME = LONGASSOCNAME1
```

Legend

ANAME. Long Association Name

Alarm Level: No alarm condition. The message is informational only.

Recovery

This is an informational message. No further action is necessary.

Corrective Maintenance

1197 - IP Connection refused

Reports that an attempt to connect to an IP client was rejected by the client.

Example

```
RLGHNCXA03W 99-04-10 16:28:08 EST EAGLE 35.0.0
0003.1197 DCM 1213,A IP Connection refused
          RIPADDR = 123.123.123.123
          RPORT = 1314
          LIPADDR = 123.123.123.124
          LPORT = 1315
          SNAME=Unknown
          Report Date: 02-04-10 Time: 16:27:19
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

Reports on connection status can be obtained for each DCM card with the following commands:

pass:loc=xxxx:cmd="connmgr -l" displays the connection manager event log.

pass:loc=xxxx:cmd="connmgr -c" displays socket client data.

pass:loc=xxxx:cmd="connmgr -s" displays socket server data.

1198 - IP Connection, Cannot resolve RHOST

Reports that an attempt to connect to an IP client failed because the hostname could not be found on the IP network.

Example

```
RLGHNCXA03W 99-04-10 16:28:08 EST EAGLE 35.0.0
0003.1198 DCM 1213,A IP connection, Cannot resolve RHOST
          RIPADDR = Unknown
          RPORT = 1314
          LIPADDR = 123.123.123.124
          LPORT = 1315
          SNAME=LONGSOCKETNAME1
          Report Date: 02-04-10 Time: 16:27:19
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

Reports on connection status can be obtained for each DCM card with the following commands:

`pass:loc=xxxx:cmd="connmgr -l"` displays the connection manager event log.

`pass:loc=xxxx:cmd="connmgr -c"` displays socket client data.

`pass:loc=xxxx:cmd="connmgr -s"` displays socket server data.

1199 - LNP DTH Measurements Discarded for DPC

Reports that LNP DTH measurements are being discarded because the capacity of the SSP DTH table has been exceeded.

Example

```

RLGHNCXA03W 00-04-10 16:28:08 EST EAGLE 35.0.0
1234.1199     SYSTEM          INFO LNP DTH Measurements Discarded for DPC
              DPC=001-001-001
              Non-Zero Measurements Discarded: Yes

```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the Non-Zero Measurements Discarded flag is set **No**, the discarded measurements are all zero, no action is necessary.

NOTE: If the Non-Zero Measurements Discarded flag is set **Yes**, Daily LNP Measurements will be lost for the specified DPC from the time of the LIM 1199 occurrence until the end of the day.

Corrective Maintenance

2. To retrieve the prior hour LNP SSP measurement pegs follow the procedure in *Hourly Maintenance Measurements* on page 4-95 of this manual. To retrieve the prior hour LNP measurements or other specific periods set the Accessible Collection Period: **Last or Specific**.

Example: `rept-meas:type=mtch:enttye=lnp:period=last`

1200 - INW ALT card as first to be preloaded

Reports the alternate card the system selected to be loaded with GPLs and data.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1200 SYSTEM INFO INW ALT card as first to be preloaded
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1201 - INW MAIN card as last to be reset

Reports the main card the system selected to be loaded with GPLs and data.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1201 SYSTEM INFO INW MAIN card as last to be reset
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1202 - INW Asserted DDL inhibition

Reports that card cross loading is inhibited.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1202 SYSTEM INFO INW Asserted DDL inhibition
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1203 - INW Card reset command issued

Reports that a card reset command has been issued.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1203 SYSTEM INFO INW Card reset command issued
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

Corrective Maintenance

1204 - INW Waiting for card loading validation

Reports that INW is waiting for validation of card loading.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1204 SYSTEM INFO INW Waiting for card loading validation  
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1205 - INW Detected card loaded

Reports that INW has detected a successful completion of a card loading.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1205 SYSTEM INFO INW Detected card loaded  
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1206 - INW Detected card reset or removed

Reports that INW has detected the reset or removal of a card.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1206 SYSTEM INFO INW Detected card reset or removed
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1207 - INW Allowed card to skip DDL inhibited

Reports that a card is being allowed to crossload.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1207 SYSTEM INFO INW Allowed card to skip DDL inhibited
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary

1208 - INW Removed DDL inhibition

Reports that INW has removed the Dynamic Data Loading (DDL) inhibition on a card.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1208 SYSTEM INFO INW Removed DDL inhibition
CARD=1203 GPL=SS7ANSI
```

Corrective Maintenance

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1209 - INW Need to reset/remove/inhibit card

Reports that card must be manually reset, removed, or inhibited.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1209 SYSTEM INFO INW Need to reset/remove/inhibit card
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1210 - INW Card failed to reset

Reports that card has failed to reset.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1210 SYSTEM INFO INW Card failed to reset
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1211 - INW Failed to assert DDL inhibition

Reports that a DDL inhibition has failed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1211 SYSTEM INFO INW Failed to assert DDL inhibition  
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1212 - INW Failed to remove DDL inhibition

Reports that an attempt to remove DDL inhibition has failed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1212 SYSTEM INFO INW Failed to remove DDL inhibition  
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

Corrective Maintenance

1213- INW Card failed to DDL crossload

Reports that a card failed to DDL crossload.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014. SYSTEM INFO INW Card failed to DDL crossload
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1214 - INW Allowed card to DDL crossload

Reports that a card was allowed to crossload.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1214 SYSTEM INFO INW Allowed card to DDL crossload
CARD=1203 GPL=SS7ANSI
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1215 - GWS rcvd CDPA that could not be CNCFd

This message indicates the EAGLE 5 ISS received an MSU, with a called party address (CDPA) that is not allowed in gateway screening (GWS) and cannot be converted.

Example

```

RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1215 CARD 1205,B INFO GWS rcvd CDPA that could not be CNCFd
SIO=0a OPC=003-244-000 DPC=000-071-000
SCCP MT= 18
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=ABCDEF1234567890ABCDE
SR=scrbl LSN=A1234567

```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this called party address (CDPA) is one that should be converted, add the CDPA to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **chg-scr-cdpa** command to add the CDPA to the list of allowed CDPA codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a CDPA to GWS.
 2. If the CDPA should not be converted, no action is necessary.
-

1216 - GWS rcvd CGPA that could not be CNCFd

This message indicates the EAGLE 5 ISS received an MSU, with a calling party address (CGPA) that is not allowed in gateway screening (GWS) and cannot be converted.

Example

```
RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1216 CARD 1205,B INFO GWS rcvd CGPA that could not be CNCFd
SIO=0a OPC=003-244-000 DPC=000-071-000
SCCP MT= 18
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=ABCDEF1234567890ABCDE
SR=scrib LSN=A1234567
```

Four outputs are possible.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this calling party address (CGPA) is one that should be converted, add the CGPA to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **chg-scr-cgpa** command to add the CGPA to the list of allowed CGPA codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a CGPA to GWS.
 2. If the CGPA should not be converted, no action is necessary.
-

1217 - GWS rcvd AFTPC that could not be CNCFd

This message indicates the EAGLE 5 ISS received an MSU, with an allowed affected point code (AFTPC) that is not allowed in gateway screening (GWS) and cannot be converted.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1217 CARD 1205,B INFO GWS rcvd AFTPC that could not be CNCFd
SIO=0a OPC=003-244-000 DPC=000-071-000
SCCP MT= 18
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=ABCDEF1234567890ABCDE
SR=scrbl LSN=A1234567
```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this calling allowed affected point code (AFTPC) is one that should be converted, add the AFTPC to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **chg-scr-aftpc** command to add the AFTPC to the list of allowed AFTPC codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a AFTPC to GWS.
-
2. If the AFTPC should not be converted, no action is necessary.
-

1218 - GWS rcvd TT that could not be CNCFd

This message indicates the EAGLE 5 ISS received an MSU, with a translation type (TT) that is not allowed in gateway screening (GWS) and cannot be converted.

Example

```

RLGHNCXA21W 00-04-18 18:59:23 EST EAGLE 31.3.0
0101.1218 CARD 1205,B INFO GWS rcvd TT that could not be CNCFd
SIO=0a OPC=003-244-000 DPC=000-071-000
SCCP MT= 18
CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=10 PC=004-004-004 SSN=005 TT=251
      ADDR=ABCDEF1234567890ABCDE
SR=scrib LSN=A1234567

```

NOTE: Four outputs are possible. The Legend includes abbreviations found in all variations.

Legend

ADDR. Address

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

AI. Address Indicator

CDPA. Called party address

CGPA. Calling party address

Corrective Maintenance

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

SCCP MT. SCCP message type

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

SSN. Subsystem number

TT. Translation type

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this TT is one that should be converted, add the TT to the gateway screening (GWS) tables assigned to the link reporting this message. Use the **chg-scr-tt** command to add the TT to the list of allowed TT codes. Refer to the *Database Administration Manual - Gateway Screening* for instructions on adding a TT to GWS.
 2. If this TT should not be converted, no action is necessary.
-

1219 - SCCP rcvd inv Cld Party - bad GT ind

This message indicates that SCCP received a message from the network that was discarded because of a bad global title indicator in the called party address.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1219   CARD 1103,A  INFO  SCCP rcvd inv Cld Party - bad GT ind
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP received a message that was discarded because the global title field in the called party address was invalid in the EAGLE 5 ISS. No action is necessary.

1220 - SCCP rcvd inv Cld Party - bad network

This message indicates that SCCP received a message from the network that it could not route and was discarded because of an invalid network indicator in the called party address.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1220   CARD 1103,A  INFO  SCCP rcvd inv Cld Party - bad network
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
           LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

- RI. Routing indicator
- SIO. Service information octet
- SSN. Subsystem number
- SSNI. Subsystem number indicator
- TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates that SCCP discarded a message because the network indicator (national or international) provided in the called party address is invalid in the EAGLE 5 ISS. Contact that node and inform them of the problem.

1221 - SCCP rcvd inv Cld Party - no SSN

This message indicates that SCCP received a message from the network that it could not route and was discarded because no subsystem number was present in the called party address.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1221   CARD 1103,A   INFO SCCP rcvd inv Cld Party - no SSN
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=---
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
           LSN=A1234567
```

Legend

- ADDR.** Address
- CDPA.** Called party address
- CGPA.** Calling party address
- DPC.** Destination point code

Corrective Maintenance

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

The sender of the discarded message is using an invalid message format. If there is only one occurrence, no action is necessary. However, if the condition continues, there may be problem at the node that is sending the invalid message. Contact that node and inform them of the problem.

1222 - SCCP rcvd inv GT - invalid selectors

This message indicates that SCCP receives a message from the network requiring global title translation but the message is discarded because the system does not recognize the translation type.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1222   CARD 1103,A   INFO SCCP rcvd inv GT - invalid selectors
          SIO=03   OPC=001-001-001   DPC=002-002-002
          SCCP MSG TYPE=04
```

```
CDPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
        TT=250  NP=04  NAI=010  ADDR=123456789012345678901
        PC=003-003-003  SSN=005
CGPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
        TT=100  NP=07  NAI=012  ADDR=012345678901234567890
        PC=001-001-001  SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This indicates a SCCP message was received with an invalid global title. The translation type indicator was invalid in the EAGLE 5 ISS. If this message should have been routed (verified by the output shown above), continue to step 2.

 2. Use the command **rtrv-tt**, and verify that the indicated translation type does not appear in the translation types table.

 3. If there is no entry for the translation type indicated in the message, and there should be, use the **ent-tt** command to add the translation type to the Eagle STP translation type table. For more information about procedures for entering translation types, refer to the *Database Administration Manual - Global Title Translation*.
-

1223 - SCCP did not route - bad translation

This message indicates that SCCP did not route a message because it could not translate the global title. The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1223   CARD 1103,A   INFO SCCP did not route - bad translation
          SIO=03   OPC=001-001-001   DPC=002-002-002
          SCCP MSG TYPE=04
          CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
          CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=001-001-001  SSN=004
          LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

- NAI. Nature of address indicator
- NI. Network indicator value
- NP. Numbering plan
- OPC. Origination point code
- PC. Point code
- PCI. Protocol control information
- RI. Routing indicator
- SIO. Service information octet
- SSN. Subsystem number
- SSNI. Subsystem number indicator
- TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Enter the following command to verify the global title:

```
rtrv-gtt:type=x:gta=YYYYYYYYYYYYYYYYYYYY
```

where: x = SCCP message type and $yyyyyyyyyyyyyyyyyyyy$ = cdpa address

2. If the global title is valid, refer to the *Database Administration Manual - Global Title Translation* to update the database.

If the message was correctly discarded, no action is necessary.

1224 - SCCP rcvd inv LSS - bad SSN

This message indicates that SCCP received a message destined to a local subsystem that was discarded because of a bad subsystem number (SSN).

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1224   CARD 1103,A  INFO  SCCP rcvd inv LSS - bad SSN
           SIO=03   OPC=001-001-001   DPC=002-002-002
           SCCP MSG TYPE=04
```

Corrective Maintenance

```
CDPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
        TT=250  NP=04  NAI=010  ADDR=123456789012345678901
        PC=003-003-003  SSN=005
CGPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
        TT=100  NP=07  NAI=012  ADDR=012345678901234567890
        PC=001-001-001  SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

The EAGLE 5 ISS only supports subsystem 1. All other local subsystem numbers are invalid. Contact that node and inform them of the problem. No further action is necessary.

1225 - SCCP did not route - DPC OOS

This message indicates that SCCP did not route a message because the destination point code (DPC) was out-of-service (OOS). The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0019.1225    CARD 1104,A    SCCP did not route - DPC OOS
              TRANSLATED PC=003-003-003  TRANSLATED SS=005
              CDPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
                  TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                  PC=003-003-003  SSN=005
              CGPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
                  TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                  PC=004-004-004  SSN=003
              LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

Corrective Maintenance

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Check the route and linksets by entering the **rept-stat-dstn** and **rept-stat-ls** commands.
-

2. Verify the link status using the **rept-stat-slk** command. For example, enter:

```
rept-stat-slk:loc=xxxx:port=b
```

where *xxxx* is the card location.

Following is an example of the output:

```
RLGHNCXA03W 00-09-27 17:00:36 EST EAGLE 35.0.0
SLK      LSN      CLLI      PST      SST      AST
1201,B  nsp1      ls02clli  OOS-MT   Unavail  ----
ALARM STATUS      = No alarm
UNAVAIL REASON    = FL NA LI RI
Command Completed.
```

3. Check the UNAVAIL REASON field in the output of the **rept-stat-slk** command. Following is an explanation of the UNAVAIL REASON codes:

FL - The signaling link has a fault.

NA - The signaling link is not aligned.

LI - The signaling link has been inhibited locally.

RI - The signaling link has been inhibited remotely.

LB - The signaling link has been blocked locally.

RB - The signaling link has been blocked remotely.

FC - The signaling link is unavailable because of false congestion.

RD(xx.xxx) - The signaling link is unavailable because of a restart delay to prevent signaling link oscillation. The number in parentheses indicates the amount of time, in seconds, remaining in the restart delay period. The link is restarted automatically after this amount of time has elapsed.

4. If the UNAVAIL REASON indicates an alignment problem or fault, activate a loopback using the **act-lpb** command, or use a physical loopback. (For a V.35, you must use an appropriate physical V.35 loopback.) If the signaling link aligns, contact the far-end to correct the problem.

5. If the UNAVAIL REASON still indicates an alignment problem or fault, check the status of the card by entering the **rept-stat-card** command for the specified card.

6. If the **rept-stat-card** command indicates a problem with the card, reset the card by entering the **init-card** command with the specified card location. If the card does not come up and links align, try first reseating the card, then replacing the card.
See Appendix A, *Card Removal/Replacement Procedures*.

7. If the UNAVAIL REASON indicates a locally inhibited link, enter the **unhb-slk** command with the specified card location.

8. If the UNAVAIL REASON indicates a locally blocked link, enter the **ublk-slk** command with the specified card location.

9. Otherwise, this indicates a failure at the distant node. Routing to this node has been halted as a result of network management. Maintenance personnel should be aware of the OOS condition, but no action is necessary. Monitor the links to the DPC and verify the DPC status changes to IS-NR (In-Service - Normal).

1226 - SCCP did not route - DPC congested

This message indicates that SCCP did not route a message because the destination point code (DPC) was congested. The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0019.1226   CARD 1104,A   SCCP did not route - DPC congested
           TRANSLATED PC=003-003-003  TRANSLATED SS=005
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
```


Corrective Maintenance

```
PC=003-003-003  SSN=005
CGPA:  NI=1  RI=0  GTI=04  SSNI=1  PCI=1
      TT=100  NP=07  NAI=012  ADDR=012345678901234567890
      PC=004-004-004  SSN=003
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates an SCCP message was discarded due to congestion at a distant node. Maintenance personnel should monitor the network and verify the nodes congestion status changes to zero (no congestion).

NOTE: A transfer controlled (TFC) should have been received on the link to indicate congestion to this node. When the congestion status changes, the congestion status indicator in the flow control messages will indicate what message type priorities can be transmitted to the distant node. If the condition persists, follow normal company procedures in dealing with congestion at distant nodes.

1227 - SCCP did not route - DPC not in MAP tbl

This message indicates that SCCP did not route a message because the destination point code was not in the mated application (MAP) table. The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0019.1227    CARD 1104,A    SCCP did not route - DPC not in MAP tbl
              TRANSLATED PC=003-003-003  TRANSLATED SS=005
              CDPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
                   TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                   PC=003-003-003  SSN=005
              CGPA:  NI=1  RI=0    GTI=04  SSNI=1  PCI=1
                   TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                   PC=004-004-004  SSN=003
              LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

Corrective Maintenance

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the DPC indicated in the message should not be routed to, no further action is necessary.
 2. If the DPC should be routed to from the EAGLE 5 ISS, refer to the *Commands Manual* and use the **ent-map** command to enter the DPC into the mated application (MAP) table.
-

1228 - SCCP did not route - SS OOS

This message indicates that SCCP did not route a message because the destination subsystem (SSN) was Out-of-Service. The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0019.1228   CARD 1104,A   SCCP did not route - SS OOS
           TRANSLATED PC=003-003-003  TRANSLATED SS=005
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=004-004-004  SSN=003
```

LSN=A1234567

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates an MSU was discarded because the DPC SSN it was addressed to is out-of-service (OOS). Contact the distant end node this message refers to and verify action is being taken to bring the SCCP back into service.

Corrective Maintenance

1229 - SCCP did not route - SS congested

This message indicates that SCCP did not route a message because the subsystem was congested. The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0019.1229   CARD 1104,A      SCCP did not route - SS congested
           TRANSLATED PC=003-003-003 TRANSLATED SS=005
           CDPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                PC=003-003-003  SSN=005
           CGPA:  NI=1  RI=0   GTI=04  SSNI=1  PCI=1
                TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                PC=004-004-004  SSN=003
           LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

TRANSLATED PC. Translated point code

TRANSLATED SS. Translated subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

This indicates an SCCP message was discarded due to congestion at a subsystem. Maintenance personnel should monitor the network and verify the subsystems congestion status changes to zero (no congestion).

NOTE: A transfer controlled (TFC) should have been received on the link to indicate congestion to this node. When the congestion status changes, the congestion status indicator in the flow control messages will indicate what message type priorities can be transmitted to the distant node. If the condition persists, follow normal company procedures in dealing with congestion at distant nodes.

1230 - SCCP did not route - SS not in MAP tbl

This message indicates that SCCP did not route a message because the destination subsystem was not in the Mated Application (MAP) table. The message was discarded.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0019.1230 CARD 1104,A SCCP did not route - SS not in MAP tbl
          TRANSLATED PC=003-003-003 TRANSLATED SS=005
          CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
                TT=250 NP=04 NAI=010 ADDR=123456789012345678901
                PC=003-003-003 SSN=005
          CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
                TT=100 NP=07 NAI=012 ADDR=012345678901234567890
                PC=004-004-004 SSN=003
          LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

Corrective Maintenance

NAI. Nature of address indicator
NI. Network indicator value
NP. Numbering plan
OPC. Origination point code
PC. Point code
PCI. Protocol control information
RI. Routing indicator
SIO. Service information octet
SSN. Subsystem number
SSNI. Subsystem number indicator
TT. Translation type
TRANSLATED PC. Translated point code
TRANSLATED SS. Translated subsystem

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the subsystem indicated in the message is not a mated application to the EAGLE 5 ISS, no further action is necessary.
 2. If the SCCP message should have been routed, refer to the *Commands Manual* and use the **ent-map** command to add the subsystem number to the mated application (MAP) table.
-

1231 - SCCP Encode Failure

This message indicates that there is an SCCP encode failure.

Example

```
RLGHNCXA21W 00-04-18 19:02:47 EST EAGLE 31.3.0
0115.1231 CARD 1103,A INFO SCCP Encode Failure
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA LENGTH=000 MSG TYPE=04
```

CDPA: AI=10 PC=003-003-003 SSN=005 TT=250
ADDR=12345678901234567890
LSN=A1234567

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the distant end node this message refers to and verify action is being taken to correct the SCCP encode failure problem.

1232 - SCCP Encode Failure

This message indicates that there is an SCCP encode failure.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0  
0018.1232 CARD 1103,A INFO SCCP Encode Failure  
SIO=03 OPC=001-001-001 DPC=002-002-002  
SCCP MSG TYPE=04
```


Corrective Maintenance

```
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the distant end node this message refers to and verify action is being taken to correct the SCCP encode failure problem.

1233 - MTP Invalid ITU TFR RCVD

This message indicates an ITU TFR (Transfer Restricted) procedure was received on a linkset that is not configured to receive these procedures.

Example

```
RLGHNCXA21W 00-11-18 19:12:00 EST EAGLE 35.0.0
0147.1233 CARD 1201,A INFO MTP Invalid ITU TFR RCVD
OPC=001-001-001 CPC=002-002-002
LSN=lsn01a
```

Legend

CPC - Concerned point code

LSN - Linkset name

OPC - Origination point code

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify whether the MTP (Message Transfer Part) is supposed to support an ITU TFR on the linkset on which it was received. The ITU TFR procedure is valid for ITU national linksets only. As currently configured, the linkset does not accept TFRs.
 2. If ITU TFRs are to be accepted on the linkset, you must reconfigure the linkset to accept them. Use the **itutfr=on** parameter in the **chg-ls** command to enable the transfer restricted procedure. You must specify this parameter on each ITU national linkset you want to receive ITU TFRs.
-

Corrective Maintenance

1234 - LNP Day Meas. Discarded for NPANXX

This message indicates that the Daily LNP NPANXX measurement counts are incorrect because of discards due to provisioning.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.0  
0002.1234 CARD 1201 INFO LNP Day Meas. Discarded for NPANXX
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Correct counts can be derived via calculation from LNP queries - discards - LRN pegs.

1237 - Dynamic database audit not current

The dynamic database audit has detected that checksums are inconsistent. This means that one or more cards do not concur with the current network configuration.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0  
0014.1237 SYSTEM INFO Dynamic database audit not current
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1238 - Full LNP database reload initiated

This message indicates that a cold restart is required for a TSM/BLM card. In this case, the entire LNP database is reloaded to the card.

Example

```
station1234 96-08-01 16:28:08 EST EAGLE 35.0.0
1234.1238   SYSTEM      INFO  Full LNP database reload initiated:
          CARD=1101    GPL=SCCP  CAUSE=<xxxxxxxx>
```

where <xxxxxxxx> is one of the following parameters:

Parameter	Description
XILINX	M256 Xilinx version has changed.
POWER ON	Power on reset.
DB VER	LNP database version has changed.
DB LVL	Database level is not supported or difference exceeds incremental loading capability.
HW ERR	Hardware error bit checks on the card fail.
CHECKSUM	Checksum comparisons of the LNP database fail.
NO AUDIT	Unable to perform LNP DB audit. LNP audit not on or excessive number of unknown checksums.
USER REQ	User initiated init-card or init-sys command reload type cold.
OTHER	Other or unknown.

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. If this UIM indicates that there is a hardware error or the database checksum test failed, there may be a hardware problem. When this condition repeats (the board resets and displays the same conditions again), do the following:
 - a. Reseat the card.
 - b. Replace the card to determine if it is defective.
-
2. For additional support, contact the *Customer Care Center*, see page 1-12.
-

Corrective Maintenance

1239 - LNP updates inhibited:loading mode stability

This message indicates that LNP updates are being inhibited until the download sequence for a card or group of cards completes.

Example

```
station1234 96-08-01 16:28:08 EST EAGLE 35.0.0  
1234.1239     SYSTEM          INFO DB updates inhibited:loading stability
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This is an automatic process and no action is necessary.

1240 - LNP updates allowed:loading mode stability

This message indicates that the download sequence for a card or group of cards is completed and the LNP updates are allowed.

Example

```
station1234 96-08-01 16:28:08 EST EAGLE 35.0.0  
1234.1240     SYSTEM          INFO DB updates allowed:loading stability
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

This is an automatic process and no action is necessary.

1241 - LNP Incremental Loading

This message indicates the progress in downloading the LNP database information to the applicable card or cards.

Example

```
tekelecstp 00-04-24 06:54:41 EST EAGLE 35.0.0
5402.1241  SYSTEM      INFO REPT EVT: LNP Incremental Loading.
          Database levels loaded :      0 of 1143
          Card List: 1101
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No corrective action is required.

1242 - Conv to intl num - Dflt CC not found

This message indicates that the default country code is not defined.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1242 CARD 1103,A      INFO Conv to intl num - Dflt CC not found
          SIO=03  OPC=001-001-001  DPC=002-002-002
          SCCP MSG TYPE=04
          CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
                  TT=250  NP=04  NAI=010  ADDR=123456789012345678901
                  PC=003-003-003  SSN=005
          CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
                  TT=100  NP=07  NAI=012  ADDR=012345678901234567890
                  PC=001-001-001  SSN=004
          LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

Corrective Maintenance

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Define the default CC using the **chg-stpopts:defcc** command. Refer to the *Commands Manual* for the proper usage.

1243 - Conv to intl num - Dflt NC not found

This message indicates that the default network destination code is not defined.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1243 CARD 1103,A      INFO Conv to intl num - Dflt NC not found
      SIO=03  OPC=001-001-001  DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Define the default CC using the **chg-stpopts:defndc** command. Refer to the *Commands Manual* for the proper usage.

1244 - Conv to intl num - Dflt MCC not found

This message indicates that the default E212 mobile country code is not defined.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
```


Corrective Maintenance

```
0018.1244 CARD 1103,A      INFO  Conv to intl num - Dflt MCC not found
      SIO=03  OPC=001-001-001  DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
              TT=250  NP=04  NAI=010  ADDR=123456789012345678901
              PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
              TT=100  NP=07  NAI=012  ADDR=012345678901234567890
              PC=001-001-001  SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Define the default CC using the *chg-gsmopts:defmcc* command. Refer to the *Commands Manual* for the proper usage.

1245 - Conv to intl num - Dflt MNC not found

This message indicates that the default E212 mobile network code is not defined.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1245 CARD 1103,A      INFO Conv to intl num - Dflt MNC not found
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=250  NP=04   NAI=010  ADDR=123456789012345678901
            PC=003-003-003   SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=100  NP=07   NAI=012  ADDR=012345678901234567890
            PC=001-001-001   SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

Corrective Maintenance

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Define the default CC using the **chg-gsmopts:defmnc** command. Refer to the *Commands Manual* for the proper usage.

1246 - Invalid length of conditioned digits

This message indicates that the the length of the conditioned international number is less than 5 or greater than 15 digits.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1246 CARD 1103,A      INFO Invalid length of conditioned digits
      SIO=03  OPC=001-001-001  DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Use an international number that is within the proper range - 5 or greater and 15 or less.

1247 - Conversion of MGT to IMSI not possible

This message indicates that the E212 mobile country code for the E214 mobile network code is not defined.

Example

```
station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1247 CARD 1103,A      INFO Conversion of MGT to IMSI not possible
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
              TT=250  NP=04  NAI=010  ADDR=123456789012345678901
              PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
              TT=100  NP=07  NAI=012  ADDR=012345678901234567890
```

Corrective Maintenance

PC=001-001-001 SSN=004
LSN=A1234567

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the E214 part for the E214 code in the database using the **chg-gsmopts:ccnc=xxxxxxxx:mccmnc=xxxxxxxx** command. Refer to the *Commands Manual* for the proper usage.

1248 - GSM MAP Screening rcvd unknown originator

This message occurs when an MSU arrives with a SSN and MAP Op-Code that exist in the GSM SSN and MAP Op-Code tables, but the CGPA address does not exist in the GSM MAP Screening table or the CgPA address exists in the table but with an incorrect NPV/NAIV. In this case, the default action for the Op-Code applies.

Example

```

RLGHNCXA21W 00-11-18 18:59:23 EST EAGLE 35.0.0
0018.1248    CARD 1103    INFO GSM MAP Screening rcvd unknown originator
            OPC=001-001-001
            CDPA:  NI=1      RI=0      GTI=04 SSNI=0  PCI=1
                   TT=250   NP=04    NAI=010  ADDR=123456789012345678901
                   PC=003-003-003  SSN=005
            CGPA:  NI=1      RI=0      GTI=04 SSNI=0  PCI=1
                   TT=100   NP=07    NAI=012  ADDR=012345678901234567890
                   PC=001-001-001  SSN=004
            DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
                   2e cf 01 00 d0 02 83 01 f2 25 aa 0b
                   84 09 01 00 11 0a 19 49
            Op-Code=61  Forbidden Param=N/A  Action=Discard

```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

GTI. Global title indicator

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OP-CODE. Operation Code

OPC. Origination point code

PARAM. Parameter

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

Corrective Maintenance

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. To prevent the GSM screening from disallowing this MSU, you can add the CgPA address to the GSM MAP or correct the CgPA address NPV or NAIV.

2. Alternatively, you may choose to disable MPS Screening on the specific linkset entirely. In an emergency situation for example, you can prevent MAP Screening from occurring on any suspected linkset with the **chg-ls:gsmscrn=off** command. Using this command means no MAP Screening will be performed on any MSU arriving through the linkset, which results in UIM #1248 no longer appearing.

3. Another choice is to change the default action shown in the example. It shows the **Action=Discard** for any MSU with **Op-Code=61**. This choice lets you set the default action to **Pass**; specify the command **chg-gsms-opcode:opname= <insert the opname corresponding to the Op-Code> :ndfltact=pass**. This action does not prevent UIMs from being reported, but it does prevent the specified Op-Code from being discarded.

4. If the frequency of UIM #1248 messages is distracting, you can limit the number of UIMs displayed per time interval for a specific UIM. Use the command **set-uim-acthresh:limit=1:intrvl=5:uimn=1248** to limit the output of UIM #1248 to one output every 5 minutes.

NOTE: Use this suggestion sparingly, if at all. This action has value in temporarily suppressing a large volume of UIMs while diagnosing a MAP Screening situation.

1249 - SCCP rcvd GSM MAP Opcode w/forbidden param

This message occurs when an MSU is screened in the GSM MAP Screening table and the MSU was found to contain a forbidden parameter as provisioned in the GSM MAP Screening table. The action that applies is taken from the matching entry in the GSM MAP Screening table.

Example

```

RLGHNCXA21W 00-11-18 18:59:23 EST EAGLE 35.0.0
0018.1249 CARD 1103 INFO SCCP rcvd GSM MAP Op-Code w/forbidden param
OPC=001-001-001
CDPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
Op-Code=### Forbidden Param=N/A Action=PASS
    
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

GTI. Global title indicator

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OP-CODE. Operation Code

OPC. Origination point code

PARAM. Parameter

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. The GSM MAP Screening table has successfully screened the forbidden parameter. The resultant action is performed from the matching entry.
 2. To alter the screening being performed, redefine the GSM MAP Screening table using the **gsmmap** commands.
-

1250 - SCCP rcvd undefined MAP Op-Code

This message occurs when an MSU passes the origination or destination SSN screening process and the MAP Op-Code table is searched, but the Op-Code of the MSU is not found in the MAP Op-Code table. In this case, the default action from the STPOPTS table applies.

Example

```
RLGHNCXA21W 00-11-18 18:59:23 EST EAGLE 35.0.0
0018.1250 CARD 1103 INFO SCCP rcvd undefined MAP Op-Code
OPC=001-001-001
CDPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
Op-Code=### Forbidden Param=N/A Action=ATIERR
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

GTI. Global title indicator

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OP-CODE. Operation Code

OPC. Origination point code

PARAM. Parameter

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. The GSM MAP Opcode table was searched, and the Op-Code of the MSU was not found.

2. The GSM MAP Op-Code table has successfully screened an Op-Code that was not included in the GSM MAP Opcode table.

3. However, if the Op-Code should not be screened, you can add it into the GSM MAP Op-Code table.

4. To alter the screening being performed, change the default action for GSM screening when the Op-Code is not defined with the STPOPTS commands.

1251 - Measurements data copy failure

Measurements data is copied to all MCPM cards after collection. Measurements data copy to a Secondary MCPM failed.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0002.1251 CARD 1201 INFO Measurements data copy failure
```

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

There is no immediate action needed, but the message indicates that the error was encountered.

1252 - Report generation failure

This message is generated by the Primary MCPM. The measurement report identified in the output message did not generate.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0002.1252 CARD 1201 INFO Report generation failure
IP:111.111.111.111 FTP Error: XXXX
File Name: tues_serv.csv
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the **rept-ftp-meas** command to manually initiate the generation and FTP transfer of the indicated measurement report. Refer to the *Commands Manual* for the correct usage of this command.

1253 - Report transfer failure FTP Server

This message is generated by the Primary MCPM. The FTP transfer of the indicated report failed.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0002.1253 CARD 1201,A INFO Report transfer failure FTP Server
IP:111.111.111.111 FTP Error: XXXX
File Name: tues_serv.csv
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the **rept-ftp-meas** command to manually initiate the generation and FTP transfer of the indicated measurement report. Refer to the *Commands Manual* for the correct usage of this command.

1254 - Scheduled transfer failure

This message is generated by the Primary MCPM. Some of the reports scheduled to be generated and transferred were not transferred.

Example

```
station5 00-04-18 19:12:00 EST EAGLE 31.3.0
0002.1254 CARD 1201 INFO Scheduled transfer failure
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Enter the **rept-ftp-meas** command to manually initiate the generation and FTP transfer of the affected measurement report. Refer to the *Commands Manual* for the correct usage of this command.

1255 - IS-41 LNP Qry rejected: WNP is OFF

The EAGLE has rejected an LNPQS query that is decoded as an IS-41 Query because the appropriate WNP (Wireless Number Portability) feature is not on.

Example

```
RLGHNCXA21W 03-04-18 19:02:05 EST EAGLE 31.3.0
0112.1255 CARD 1103,A1 INFO IS-41 LNP Qry rejected: WNP is OFF
SIO=83 OPC=001-101-001 DPC=001-001-001
CDPA: AI=cb SSN=016 TT=012
      ADDR=919380
CGPA: AI=c3 PC=001-101-001 SSN=016
DATA=3a e2 38 c7 04 56 04 72 e0 e8 30 e9
      2e cf 01 00 d0 02 83 01 f2 25 aa 0b
      84 09 01 00 11 0a 19 49
LSN=e1m1s1
```

Corrective Maintenance

Legend

ADDR. Address

AI. Address Indicator

CDPA LENGTH. Called party address length

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type (for example, connection request, connection confirm, connection refused)

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If you want to support the WNP feature, issue the **chg-feat:wnp=on** command to process IS-41 LNP queries.
 2. If you do not want to support the WNP feature, ignore this informational message.
 3. For additional information or assistance about the WNP or any feature to purchase, contact the *Customer Care Center*, see page 1-12.
-

1256 - MNP Circular Route Detected

This message indicates the network has incorrect number portability data for a subscriber.

Example

```

station1234 99-08-30 16:28:08 EST EAGLE 35.0.0
0018.1256 CARD 1103,A      INFO  MNP Circular Route Detected
      SIO=03  OPC=001-001-001  DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567
  
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

GTI. Global title indicator

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

Verify and update number portability data.

1257 - DB restore has cleared and Disabled PDS

A DB restore has rendered the data on PDS table obsolete. The PDS table will be updated when the OAM is rebooted.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1257 SYSTEM INFO DB restore has cleared and Disabled PDS
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1258 - Map Screening cannot Forward MSU

This message occurs when an MSU selected by MAP Screening for the Forward screening action cannot be forwarded.

Example

```
RLGHNCXA21W 00-11-18 18:59:23 EST EAGLE 35.0.0
0018.1258 CARD 1103 INFO Map Screening cannot Forward MSU
OPC=001-001-001
CDPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
Op-Code=61 Forbidden Param=N/A Action=Discard
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address
DATA. Hex dump of TCAP part of MSU
GTI. Global title indicator
NAI. Nature of address indicator
NI. Network indicator value
NP. Numbering plan
OP-CODE. Operation Code
OPC. Origination point code
PARAM. Parameter
PC. Point code
PCI. Protocol control information
RI. Routing indicator
SIO. Service information octet
SSN. Subsystem number
SSNI. Subsystem number indicator
TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the DPC indicated in the message should not be routed to, no further action is necessary.

2. If the DPC should be routed to from the EAGLE 5 ISS, use the **ent-map** command to enter the DPC into the mated application (MAP) table.

3. If the subsystem indicated in the message is not a mated application to the EAGLE 5 ISS, no further action is necessary.

4. If the SCCP message should have been routed, use the **ent-map** command to add the subsystem number to the mated application (MAP) table.

Corrective Maintenance

1259 - Map Screening cannot Duplicate MSU

This message occurs when an MSU selected by MAP Screening for the Duplicate screening action cannot be duplicated and/or routed to the duplicate node.

Example

```
RLGHNCXA21W 00-11-18 18:59:23 EST EAGLE 35.0.0
0018.1259 CARD 1103 INFO Map Screening cannot Duplicate MSU
OPC=001-001-001
CDPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC=003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC=001-001-001 SSN=004
Op-Code=61 Forbidden Param=N/A Action=Discard
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

GTI. Global title indicator

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OP-CODE. Operation Code

OPC. Origination point code

PARAM. Parameter

PC. Point code

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If the DPC indicated in the message should not be routed to, no further action is necessary.

2. If the DPC should be routed to from the EAGLE 5 ISS, use the **ent-map** command to enter the DPC into the mated application (MAP) table.

3. If the subsystem indicated in the message is not a mated application to the EAGLE 5 ISS, no further action is necessary.

4. If the SCCP message should have been routed, use the **ent-map** command to add the subsystem number to the mated application (MAP) table.

1260 - LSS: Unsupported TCAP msg type

This message indicates that the LSS (local subsystem) received an SCCP message containing an unsupported TCAP (transaction capabilities application portion) message type.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1260 CARD 1103,A1 INFO LSS: Unsupported TCAP msg type
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
      LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

Corrective Maintenance

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1261 - LSS: Invalid len in transaction portion

This message indicates that the LSS (local subsystem) received a TCAP message containing an invalid length in the transaction portion of the message.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1261 CARD 1103,A1 INFO LSS: Invalid len in transaction portion
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1262 - LSS: Invalid len in dialogue portion

This message indicates that the LSS (local subsystem) received a TCAP message with an invalid length in the dialogue portion of the message.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1262 CARD 1103,A1 INFO LSS: Invalid len in dialogue portion
          SIO=03 OPC=001-001-001 DPC=002-002-002
          CDPA: AI=52 SSN=005 TT=250
                ADDR=ABCDEF1234567890ABCDE
          CGPA: AI=43 PC=001-001-001 SSN=002
          LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level:

Corrective Maintenance

Recovery

No action at the Eagle is necessary.

1263 - LSS: Invalid len in component portion

This message indicates that the LSS (local subsystem) received a TCAP message with an invalid length in the component portion of the message.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1263 CARD 1103,A INFO LSS: Invalid len in component portion
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1264 - LSS: No originating transaction ID

This message indicates that the LSS (local subsystem) received a TCAP message that does not have an originating transaction ID.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1264 CARD 1103,A1 INFO LSS: No originating transaction ID
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action at the Eagle is necessary.

1265 - LSS: Invalid transaction ID len

This message indicates that the LSS (local subsystem) received a TCAP message containing an invalid transaction ID length.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1265 CARD 1103,A1 INFO LSS: Invalid transaction ID len
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1266 - LSS: Destination transaction ID in Begin

This message indicates that the LSS (local subsystem) received a Begin TCAP message containing a destination transaction ID. (The Begin message should have an originating transaction ID only. A destination transaction ID is valid only in Abort, Continue, and End TCAP messages.)

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1266 CARD 1103,A1 INFO LSS: Destination transaction ID in Begin
      SIO=03 OPC=001-001-001 DPC=002-002-002
      CDPA: AI=52 SSN=005 TT=250
            ADDR=ABCDEF1234567890ABCDE
      CGPA: AI=43 PC=001-001-001 SSN=002
      LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1267 - LSS: No External element

This message indicates that the LSS (local subsystem) received a TCAP message that does not contain an External element in the dialogue portion of the message.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1267 CARD 1103,A1 INFO LSS: No External element
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1268 - LSS: No External Object Identifier

This message indicates that the LSS (local subsystem) received a TCAP message that does not contain an Object Identifier element in the External element in the dialogue portion of the message.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1268   CARD 1103,A1  INFO  LSS: No External Object Identifier
           SIO=03   OPC=001-001-001  DPC=002-002-002
           CDP A: AI=52  SSN=005  TT=250
                ADDR=ABCDEF1234567890ABCDE
           CGPA: AI=43  PC=001-001-001  SSN=002
           LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1269 - LSS: Not Structured Dialogue

This message indicates that the LSS (local subsystem) received a TCAP message with an Object Identifier value in the External element in the dialogue portion that does not indicate a structured dialogue as specified in ITU Q.773.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1269 CARD 1103,A1 INFO LSS: Not Structured Dialogue
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1270 - LSS: No External ASN1-Type

This message indicates that the LSS (local subsystem) received a TCAP message that does not have an ASN1-Type element in the External element in the dialogue portion of the message.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1270 CARD 1103,A1 INFO LSS: No External ANS1-Type
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1271 - LSS: No Dialogue Request

This message indicates that the LSS (local subsystem) received a TCAP message that does not have a Dialogue Request element in the ASN1-Type element in the dialogue portion of the message.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1271 CARD 1103,A1 INFO LSS: No Dialogue Request
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1272 - LSS: No Application Context Name

This message indicates that the LSS (local subsystem) received a TCAP message that does not have an Application Context Name element in the Dialogue Request element in the dialogue portion of the message.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1272 CARD 1103,A1 INFO LSS: No Application Context Name
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1273 - LSS: No ACN Object Identifier

This message indicates that the LSS (local subsystem) received a TCAP message that does not have an Object Identifier element in the Application Context Name element in the dialogue portion of the message.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1273 CARD 1103,A1 INFO LSS: No ACN Object Identifier
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1274 - LSS: No component portion

This message indicates that the LSS (local subsystem) received a TCAP message that does not contain a component portion tag.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1274    CARD 1103,A1  INFO  LSS: No component portion
              SIO=03   OPC=001-001-001  DPC=002-002-002
              CDPA:  AI=52  SSN=005  TT=250
                  ADDR=ABCDEF1234567890ABCDE
              CGPA:  AI=43  PC=001-001-001  SSN=002
              LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action at the Eagle is necessary.

1275 - LSS: No Invoke component

This message indicates that the LSS (local subsystem) received a TCAP message that does not contain an Invoke component.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1275 CARD 1103,A1 INFO LSS: No Invoke component
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1276 - LSS: No Invoke ID

This message indicates that the LSS (local subsystem) received a TCAP message that does not contain an Invoke ID within the component.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1276    CARD 1103,A1  INFO  LSS: No Invoke ID
              SIO=03   OPC=001-001-001  DPC=002-002-002
              CDPA:  AI=52  SSN=005  TT=250
                  ADDR=ABCDEF1234567890ABCDE
              CGPA:  AI=43  PC=001-001-001  SSN=002
              LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action at the Eagle is necessary.

1277 - LSS: No operation code

This message indicates that the LSS (local subsystem) received a TCAP message that does not contain an operation code tag within the component.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1277 CARD 1103,A2 INFO LSS: No operation code
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1278 - LSS: No parameter (set/sequence)

This message indicates that the LSS (local subsystem) received a TCAP message that does not contain a parameter, parameter set, or a parameter sequence within the component.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1278   CARD 1103,A1  INFO  LSS: No parameter (set/sequence)
           SIO=03   OPC=001-001-001  DPC=002-002-002
           CDPA:  AI=52  SSN=005  TT=250
                ADDR=ABCDEF1234567890ABCDE
           CGPA:  AI=43  PC=001-001-001  SSN=002
           LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1279 - LSS: Unsupported network type

This message indicates that the LSS (local subsystem) received an SCCP message of an unsupported network type.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1279 CARD 1103,A INFO LSS: Unsupported network type
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1280 - LSS: Unsupported SCCP msg type

This message indicates that the LSS (local subsystem) received an SCCP message of an unsupported SCCP message type.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1280 CARD 1103,A1 INFO LSS: Unsupported SCCP msg type
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action at the Eagle is necessary.

1281 - LSS: No SCCP CDPA SSN

This message indicates that the LSS (local subsystem) received an SCCP message for which the subsystem number (SSN) for the called party (CDPA) is missing.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1281 CARD 1103,A1 INFO LSS: No SCCP CDPA SSN
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1282 - LSS: Unsupported SCCP CDPA GTI

This message indicates that the LSS (local subsystem) received an SCCP message for which the GTI (Global Title Indicator) value for the called party (CDPA) is unsupported.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1282    CARD 1103,A1  INFO  LSS: Unsupported SCCP CDPA GTI
              SIO=03    OPC=001-001-001  DPC=002-002-002
              CDPA:  AI=52  SSN=005  TT=250
                  ADDR=ABCDEF1234567890ABCDE
              CGPA:  AI=43  PC=001-001-001  SSN=002
              LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1283 - LSS: Unsupported SCCP CGPA RI

This message indicates that the LSS (local subsystem) received an SCCP message for which the RI (Routing Indicator) value for the calling party (CGPA) is unsupported.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1283 CARD 1103,A1 INFO LSS: Unsupported SCCP CGPA RI
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1284 - LSS: Unknown SSP PC

This message indicates that the LSS (local subsystem) received an SCCP message that contained an SSP (Service Switching Point) point code (PC) that is not in the Eagle routing table. The SSP PC is the CGPA PC (if it exists) or the OPC, otherwise. In the example below, the SSP PC is 001-001-002.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1284 CARD 1103,A2 INFO LSS: Unknown SSP PC
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
        ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. The LSS received a message that does not have a corresponding SSP point code entry in the Eagle routing table.

2. You must decide whether you want to accept queries from that SSP.
 - a. If you choose to not respond to queries from that SSP, use the gateway screening feature to stop this information message from re-appearing by having the Eagle system reject queries from that specific SSP. No further action is necessary.
 - b. If you want to respond to queries from that SSP, continue with the next step.

3. List the routing table entry for the SSP in question with the **rtrv-rte** command.
 - a. If the retrieve route command shows the SSP point code has an Eagle routing table entry, which is not expected since this message says no entry exists, contact the *Customer Care Center*, see page 1-12 about this situation. Do not continue to other steps of this procedure.
 - b. If the retrieve route command shows no entry in the routing table, which is expected here, continue with the next step.

4. List the destination table entry for the SSP in question with the **rtrv-dstn** command.
 - a. If the SSP point code is not in the Eagle destination table, add that entry with the **ent-dstn** command. (For detailed information about using the **ent-dstn** command, refer to "Adding a Destination Point Code" in Chapter 2, "Configuring Destination Tables" in the *Eagle Database Administration -- SS7 manual*.) Proceed to Step 5
 - b. If the SSP point code is in the Eagle destination table, continue with the next step.

5. Enter the route set for the SSP point code by issuing one of more **ent-rte** commands. (For detailed information about using the **ent-rte** command, refer to "Adding a Route" in the chapter "SS7 Configuration" in the *Eagle Database Administration - SS7 manual*.)

1285 - LSS: No SCCP CGPA SSN

This message indicates that the LSS (local subsystem) received an SCCP message in which the subsystem number (SSN) for the calling party (CGPA) is missing.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1285 CARD 1103,A1 INFO LSS: No SCCP CGPA SSN
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

Corrective Maintenance

1286 - LSS: Invalid INAP CalledPartyNumber len

This message indicates that the LSS (local subsystem) received an INAP message in which the Called Party Number parameter length is invalid.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1286 CARD 1103,A1 INFO LSS: Invalid INAP CalledPartyNumber len
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1287 - LSS: Unsupported ACN Object ID len

This message indicates that the LSS (local subsystem) received a TCAP message in which the length of the Application Context Name's Object Identifier is unsupported.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1287    CARD 1103,A1  INFO  LSS: Unsupported ACN Object ID len
            SIO=03   OPC=001-001-001  DPC=002-002-002
            CDPA:  AI=52  SSN=005  TT=250
                   ADDR=ABCDEF1234567890ABCDE
            CGPA:  AI=43  PC=001-001-001  SSN=002
            LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

Corrective Maintenance

1288 - LSS: Unsupported operation code

This message indicates that the LSS (local subsystem) received a TCAP message in which the operation code is unsupported.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1288 CARD 1103,A1 INFO LSS: Unsupported operation code
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1289 - LSS: No parameter sequence

This message indicates that the LSS (local subsystem) received a TCAP message that has a single parameter or a parameter set instead of the expected parameter sequence.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1289    CARD 1103,A1  INFO  LSS: No parameter sequence
             SIO=03   OPC=001-001-001  DPC=002-002-002
             CDPA:  AI=52  SSN=005  TT=250
                   ADDR=ABCDEF1234567890ABCDE
             CGPA:  AI=43  PC=001-001-001  SSN=002
             LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

Corrective Maintenance

1290 - LSS: No INAP ServiceKey parameter

This message indicates that the LSS (local subsystem) received an INAP message that does not contain the Service Key parameter.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1290 CARD 1103,A1 INFO LSS: No INAP ServiceKey parameter
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1291 - LSS: No INAP CalledPartyNumber param

This message indicates that the LSS (local subsystem) received an INAP message that does not contain an Called Party Number parameter.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1291 CARD 1103,AI INFO LSS: No INAP CalledPartyNumber param
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

Corrective Maintenance

1292 - LSS: Parameters out of sequence

This message indicates that the LSS (local subsystem) received a TCAP message in which the mandatory and conditional parameters are not in the correct sequence.

Example

```
RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1292 CARD 1103,A1 INFO LSS: Parameters out of sequence
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567
```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1293 - LSS: Invalid num of digits in INAP CdPN

This message indicates that the LSS (local subsystem) received an INAP message containing an invalid number of digits in the Called Party Number (CdPN) parameter.

Example

```

RLGHNCXA21W 99-12-18 18:59:23 EST EAGLE 31.3.0
0101.1293 CARD 1103,A1 INFO LSS: Invalid num of digits in INAP CdPN
SIO=03 OPC=001-001-001 DPC=002-002-002
CDPA: AI=52 SSN=005 TT=250
      ADDR=ABCDEF1234567890ABCDE
CGPA: AI=43 PC=001-001-001 SSN=002
LSN=A1234567

```

Legend

ADDR. Address

AI. Address Indicator

CGPA. Calling party address

CDPA. Called party address

DATA. Hex dump of TCAP part of MSU

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

PC. Point code

SIO. Service information octet

SSN. Subsystem number

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action at the Eagle is necessary.

1294 - Invalid digits in MAP MSISDN parameter

This message indicates that no valid digits were found in the MAP MSISDN parameter.

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0018.1294 CARD 1103,A      INFO Invalid digits in MAP MSISDN parameter
SIO=03  OPC=001-001-001  DPC=002-002-002
SCCP MSG TYPE=04
CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
      TT=250  NP=04  NAI=010  ADDR=123456789012345678901
      PC=003-003-003  SSN=005
CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
      TT=100  NP=07  NAI=012  ADDR=012345678901234567890
      PC=001-001-001  SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the message to have valid digits (digits length greater than 0) in the MSISDN parameter.

1295 - Translation PC is EAGLE 5 ISS's

This message indicates that the point code translation is invalid because it is one the EAGLE 5 ISS's own point codes.

Example

```
station1234 00-10-30 16:28:08 EST EAGLE 35.0.0
0018.1295 CARD 1103,A INFO Translation PC is EAGLE's
SIO=03 OPC= 001-001-001 DPC= 002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
TT=250 NP=04 NAI=010 ADDR=123456789012345678901
PC= 003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
TT=100 NP=07 NAI=012 ADDR=012345678901234567890
PC= 001-001-001 SSN=004
LSN=A1234567 GTTSET=3 203 46
```

Legend

- ADD. Address
- CDPA. Called party address
- CGPA. Calling party address
- GTI. Global title indicator
- GTTSET. GTT Set Index
- LSN. Linkset name
- NAI. Nature of address indicator
- NI. Network indicator value
- NP. Numbering plan
- PC. Point code
- PCI. Point code indicator

Corrective Maintenance

RI. Routing indicator
SSN. Subsystem number
SSNI. Subsystem number indicator
TT. Translation type
TRANSLATED PC. Translated point code
TRANSLATED SS. Translated subsystem

NOTE: If Global Title Translation is found, the GTTSET in which the translation is found appears. If Global Title Translation is not found, the GTTSET does not display.

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the translation point code for the entry to a non-Eagle's point code. Provision the entity data from the EPAP/ELAP. Refer to the *EPAP Administration Manual* or the *ELAP Administration Manual*, and see the topic "Manage Network Entities" for details about changing this entity data.

1296 - Translation PC type is ANSI

This message indicates that the point code translation is invalid because it is an ANSI point code.

Example

```
station1234 11-10-30 16:28:08 EST EAGLE 35.0.0
0018.1296 CARD 1103,A      INFO Translation PC type is ANSI
      SIO=03   OPC=001-001-001   DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=250  NP=04  NAI=010  ADDR=123456789012345678901
            PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
            TT=100  NP=07  NAI=012  ADDR=012345678901234567890
            PC=001-001-001  SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address
CGPA. Calling party address
GTI. Global title indicator
LSN. Linkset name. The name must be unique.
MSG TYPE. Message type
NAI. Nature of address indicator
NI. Network indicator value
NP. Numbering plan
OPC. Origination point code
PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)
PCI. Protocol control information
RI. Routing indicator
SIO. Service information octet
SSN. Subsystem number
SSNI. Subsystem number indicator
TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the translation point code type to a non-ANSI type. Provision the point code type from the EPAP. Refer to the *EPAP Administration Manual* and see the topic "Manage Network Entities" for details about changing this entity data.

1297 - Invalid length of prefix/suffix digits

This message indicates that the attempted digit action of prefixing or suffixing the entity ID is invalid because the combined length of the entity ID and GT digits is greater than 21 digits.

Corrective Maintenance

Example

```
station1234 11-10-30 16:28:08 EST EAGLE 35.0.0
0018.1297 CARD 1103,A      INFO Invalid length of prefix/suffix digits
      SIO=03  OPC=001-001-001  DPC=002-002-002
      SCCP MSG TYPE=04
      CDPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
              TT=250  NP=04  NAI=010  ADDR=123456789012345678901
              PC=003-003-003  SSN=005
      CGPA:  NI=1  RI=0      GTI=04  SSNI=1  PCI=1
              TT=100  NP=07  NAI=012  ADDR=012345678901234567890
              PC=001-001-001  SSN=004
      LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

GTI. Global title indicator

LSN. Linkset name. The name must be unique.

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Origination point code

PC. Point code for the SS7 end user (OPC). Use the `rtrv-x25-dstn` command to determine the X.25 address that corresponds to this point code. With an invalid X.25 packet, the point code will always be invalid (-----)

PCI. Protocol control information

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

Change the attempted digit action or decrease the length of the entity ID or the GT digits to a length of 21 digits or less. Provision the digit action or the entity ID length from the EPAP. Refer to the *EPAP Administration Manual* for details.

1298 - Updates inhibited: loading stability

The SCCP card was auto inhibited because GTT and LNP are on at the same time. This is an invalid configuration.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1298   SYSTEM  INFO  Updates inhibited: loading stability
CARD=1203   GPL=VSCCP
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1299 - Updates allowed: loading stability

The auto-inhibited SCCP card problem has been corrected. Updates are now allowed.

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0014.1299   SYSTEM  INFO  Updates allowed: loading stability
CARD=1203   GPL=VSCCP
```

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action necessary.

1300 - REPT EVT: Incremental Loading

This message indicates the progress in downloading the SCCP database information to the applicable card or cards.

Example

```
RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1300   SYSTEM      INFO   REPT EVT: Incremental Loading
                               Database levels loaded : 1 of 25
                               Card list: 1101, 1103
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No corrective action is required.

1301 - SECMTPMATE - rcvd mate PC on non C-link

This message indicates the Eagle received a MTP message that failed the mate SID verification. The message was discarded.

Example

```
RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1301   CARD 1205,A  INFO   SECMTPMATE - rcvd mate PC on non C-link
                               SIO=0a   OPC=003-247-000 DPC=002-000-000
                               DATA=12 34 56 78 90 12 34 56 78 90 12 34
                               56 78 90 12 34 56 78 90 12 34 56 78
                               SR=scrib LSN=A1234567
```

Legend

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1302 - SECMTPSID - rcvd MSU with OPC = SID

This message indicates the Eagle received a MTP message that failed the self SID verification. The message was discarded.

Example

```
RLGHNCXA21W 00-04-18 18:59:58 EST EAGLE 31.3.0
0105.1302 CARD 1205,A INFO SECMTPSID - rcvd MSU with OPC = SID
      SIO=0a  OPC=003-247-000  DPC=002-000-000
      DATA=12 34 56 78 90 12 34 56 78 90 12 34
              56 78 90 12 34 56 78 90 12 34 56 78
      SR=scrib  LSN=A1234567
```

Legend

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

No action necessary.

1303 - SECMTPSNM - no rte to OPC/AFTPC

This message indicates the Eagle received a MTP network management message that failed the MTP Network Management Message OPC Verification. The message was discarded.

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1303 CARD 1105,B INFO SECMTPSNM - no rte to OPC/AFTPC
SIO=0a OPC=003-243-000 DPC=000-024-000
H0H1=41 AFTPC=099-099-003
SR=osp3 LSN=A1234567
```

Legend

AFTPC. Affected point code (for SCCP messages)

DATA. Information from the upper layers of SCCP management

DPC. Destination point code

H0H1. H0/H1 heading code

LSN. Linkset name. The name must be unique.

OPC. Origination point code

SIO. Service information octet

SR. Screening reference name

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1304 - SECSCCPSCMG - no rte to AFTPC

This message indicates the Eagle received a MTP network management message that failed the SCMG AFTPC Verification. The message was discarded.

Example

```

RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 31.3.0
0102.1304    CARD 1205,B  INFO  SECSCCPSCMG - no rte to AFTPC
              SIO=03    OPC=003-245-000  DPC=001-004-000
              SCMG:    TYPE=000  AFTPC=003-003-003
                      MULT=000  AFTSS=005
              SR=scrib  LSN=A1234567

```

Legend

AFTPC. Affected point code (for SCCP messages)

AFTSS. Affected subsystem (identifies the subsystem that failed)

DPC. Destination point code

LSN. Linkset name. The name must be unique.

MULT. SCCP management message multiplicity indicator

OPC. Origination point code

SCMG. SCCP management message

SIO. Service information octet

SR. Screening reference name

TYPE. SCCP management message type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1305 - MTP rcvd UPU - User SCCP, Cause invalid

This message is generated for a UPU message for a SCCP user when the unavailability cause indicates a SCCP translation exists for a node that does not have a SCCP user part.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 11:02:30 EST EAGLE 35.0.0
0100.1305 CARD 1201,A INFO MTP rcvd UPU - user SCCP, Cause invalid
SIO=03 OPC=003-232-000 DPC=001-004-000
AFTPC=004-000-001 UPU=03 UNAVAIL CAUSE=001
LSN=A1234567
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1306 - GSMOPTS: EIR Global Response is ON

The EIR Global Response Type is on. The EIR Global Response Type is set by the **chg-gsmopts** command and the **eirgrsp** parameter.

The Global Response Type is used to override the response that is returned to the MSC (Mobile Switching Center). The default value is OFF. When this parameter is set to OFF, the normal list logic is applied to the IMEI. If the Global Response Type is set to a value other than OFF, there is no list logic processing, and the response corresponding to the **eirgrsp** value is sent to the MSC.

For more information about **eirgrsp**, refer to the **chg-gsmopts** command in the *Commands Manual*.

Example

```
RLGHNCXA21W 03-08-18 19:09:14 EST EAGLE 31.3.0
0140.1306 CARD 1201 INFO GSMOPTS: EIR Global Response is ON
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No corrective action is required.

1307 - GSMOPTS: EIR Global Response is OFF

The EIR Global Response Type is off. The EIR Global Response Type is set by the **chg-gsmopts** command and the **eirgrsp** parameter.

The Global Response Type is used to override the response that is returned to the MSC (Mobile Switching Center). The default value is OFF. When this parameter to OFF, the normal list logic is applied to the IMEI. If the Global Response Type is set to a value other than OFF, there is no list logic processing, and the response corresponding to the **eirgrsp** value is sent to the MSC.

For more information about **eirgrsp**, refer to the **chg-gsmopts** command in the *Commands Manual*.

Example

```
RLGHNCXA21W 03-08-18 19:09:14 EST EAGLE 31.3.0
0140.1306 CARD 1201 INFO GSMOPTS: EIR Global Response is OFF
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No corrective action is required.

1310 - System Meas. Limit exceeded for LRN

This UIM is issued if the Measurements Platform is not enabled and if the number of provisioned LRNs exceeds 100,000. When the limit of 100,00 is exceeded, this UIM is notification that the LNP LRN measurements report will be truncated, and additional LRN measurements will not be collected or reported.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 31.3.0
0140.1310 CARD 1201 INFO System Meas. Limit exceeded for LRN
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

You have two options if this UIM appears:

- Install the Measurements Platform to increase the reporting limits, or
 - If you have any unused LRN entries, you can remove them such that the number of provisioned LRNs does not exceed the limit of 100,000.
-

1311 - System Meas. Limit exceeded for NPANXX

This UIM is issued if the Measurements Platform is not enabled and if the number of provisioned NPANXXs exceeds 150,000. When the limit of 150,000 is exceeded, this UIM is notification that the LNP NPANXX measurements report will be truncated, and additional NPANXX measurements will not be collected or reported.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 31.3.0  
0140.1311 CARD 1201 INFO System Meas. limit exceeded for NPANXX
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

You have two options if this UIM appears:

- Install the Measurements Platform to increase the reporting limits, or
 - If you have any unused NPANXX entries, you can remove them such that the number of provisioned NPANXXs does not exceed the limit of 150,000.
-

1320 - FPT value unprovisioned for frame

This UIM is periodically raised at hourly intervals, starting at the system initialization time, for all the provisioned frames if the Frame Power Threshold value is not provisioned for that frame.

Example

```
RLGHNCXA21W 00-04-18 19:05:43 EST EAGLE 35.0.0
```

0021.1320 CARD 1113 INFO FTP value unprovisioned for frame CF00

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Verify that the Frame Power Threshold value is not configured for the provisioned frame for which the UIM is generated by using the following command:

```
rtrv-frm-pwr
```

2. Configure the appropriate Frame Power Threshold value for the frame using the following command

```
ent-frm-pwr
```

Otherwise, contact the *Customer Care Center*, see page 1-12, about the generated UIM.

1321 - Eagle RTDB Birthdate Mismatch

This message appears if the EAGLE 5 ISS connects to an ELAP and the birthdates do not match between the RTDB on the ELAP and the RTDB on the EAGLE 5 ISS.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 35.0.0  
0008.1321    SYSTEM        INFO        Eagle RTDB Birthdate Mismatch
```

Alarm Level: No alarm condition. The message is informational only.

Corrective Maintenance

Recovery

Contact the *Customer Care Center*, see page 1-12.

1322 - Eagle RTDB Levels Invalid

This message appears if the EAGLE 5 ISS connects to an ELAP and the ELAP's RTDB db-level is less-than the EAGLE 5 ISS's RTDB db-level.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 35.0.0  
0008.1322 SYSTEM INFO Eagle RTDB Levels Invalid
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the *Customer Care Center*, see page 1-12.

1323 - Eagle/Elap TN Quantity Mismatch

This message appears if the EAGLE 5 ISS connects to an ELAP that has a greater number of TNs provisioned than the EAGLE 5 ISS's quantity keys allow.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 35.0.0  
0008.1323 SYSTEM INFO Eagle/Elap TN Quantity Mismatch
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the *Customer Care Center*, see page 1-12.

1324 - Eagle/Elap NPANXX Quantity Mismatch

This message appears if the EAGLE 5 ISS connects to an ELAP that has a greater number of NPANXXs provisioned than the EAGLE 5 ISS's quantity keys allow.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 35.0.0  
0008.1324 SYSTEM INFO Eagle/Elap NPANXX Quantity Mismatch
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the *Customer Care Center*, see page 1-12.

1325 - Eagle/Elap LRN Quantity Mismatch

This message appears if the EAGLE 5 ISS connects to an ELAP that has a greater number of LRN s provisioned than the EAGLE 5 ISS's quantity keys allow.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 35.0.0  
0008.1325 SYSTEM INFO Eagle/Elap LRN Quantity Mismatch
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the *Customer Care Center*, see page 1-12.

1326 - Eagle RTDB Depth Alert

RTDB data is stored as inverse tree structures the trees have a maximum depth allowed. This alarm indicates that the maximum depth has been reached for a tree. If the alarm was initiated during a data update, the update will continually fail until there is manual intervention.

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 35.0.0  
0008.1326 SYSTEM INFO Eagle RTDB Depth Alert
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Contact the *Customer Care Center*, see page 1-12.

1330 - Mismatched UA Routing Context

This message is issued in the following scenarios:

1. If routing context is present in a M3UA Data message received by the EAGLE 5 ISS, and no routing key for the receiving M3UA association contains a matching routing context value.
2. If routing context is absent in a M3UA Data message received by the EAGLE 5 ISS, and the receiving M3UA association's application server is referenced by a routing key containing routing context.
3. If routing context is present in a M3UA ASP-Active or ASP-Inactive or DAUD message received by the EAGLE 5 ISS, and no routing key for the receiving M3UA association contains a matching routing context value, then a UIM will be generated.
4. If routing context is present in a SUA message received by the EAGLE 5 ISS, and no routing key for the receiving SUA association contains a matching routing context value.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
3409.1330 CARD 1305,A INFO Mismatched UA Routing Context
          ANAME = m3ua_assoc_0003 M3UA RC=3

```

Legend

ANAME. The name of the M3UA or SUA Association. This is followed by the user adapter type (M3UA or SUA) and the value of the Routing Context received in the message. If the Routing Context is absent from the message, RC will be displayed as "none."

Alarm Level: No alarm condition. The message is informational only.

Recovery

-
1. The use of Routing Context in the Eagle Routing Key configuration and the use of the Routing Context by the far-end Application Server should be made to match so that they are either both using Routing Context –OR– they are both not using Routing Context.
-
2. Contact the *Customer Care Center*, see page 1-12.
-

1331 - IP Route Table Entry Conflict

A conflict exists between user configured static IP routes and dynamically added routes. (The Integrate Message Feeder application monitoring dynamically creates host specific IP routes to an IMF VIP address.) There are two scenarios in which such a conflict can result:

1. If an Integrated Message Feeder application receives a service accept message and attempts to add a host specific IP route for the IP address received in the service accept message and there is an user configured static IP route (entered by **ent-ip-rte** EAGLE 5 ISS command) whose destination is the same IP address, then the route is not added and the UIM is sent indicating the route and result.
2. If a user enters a host specific IP route using the **ent-ip-rte** command and there currently exists a dynamically added route with the same destination IP address, then the dynamic route is deleted, the static route is added, and this UIM indicating the result is generated.

Corrective Maintenance

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0003.1331 CARD 1213 INFO      IP Route Table Entry Conflict
      Dynamic IP Route Add Fail
      Destination = 172.130.155.110
      Gateway     = 172.120.154.111
      Mask        = 255.255.255.255
Report "Date:02-02-21 Time:02:07:19
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Resolve the IP Address conflict. One must either change the Integrated Message Feeder application VIP address or delete the static IP address using the following command.

```
dlt-ip-rte
```

1332 - Invalid Initial M2PA FSN Received

The Eagle received an initial M2PA DATA message with an invalid FSN (Forward Sequence Number). The expected FSN in M2PA for the first DATA message received after link alignment is 0 for M2PA RFC. Older versions of M2PA (before Draft 9) used an initial FSN of 1. This UIM indicates that the two ends of the link have mismatched configurations.

- Eagle versions prior to 34.3 support M2PA Draft 6 but do not support M2PA RFC.
- If both ends of the M2PA association are on Eagle release 34.3 or later, verify that both ends have the VER parameter set to match on the M2PA association (VER=D6 or VER=M2PA must be the same on both ends).
- If one end of the M2PA association is on an Eagle release prior to 34.3 and the other is 34.3 or greater, verify that the association VER parameter in the later release is set to D6 for backward compatibility

Example

```
RLGHNCXA21W 00-04-18 19:09:14 EST EAGLE 34.3.0
5781.1332 CARD 1301,A INFO      Invalid Initial M2PA FSN Received
```

Legend

FSN. Forward Sequence Number

M2PA. SS7 MTP2 - User Peer-to-Peer Adaptation Layer

Alarm Level: No alarm condition. The message is informational only. However, the link will not stay aligned and a link alarm will be present.

Recovery

1. To change the M2PA version used by the signaling link at the Eagle perform the following commands:
 - Use the **dact-slk:loc=xxxx:link=yy** command to deactivate the signaling link.
 - Use the **chg-assoc:open=no** command to close the M2PA association used by the signaling link.
 - Use the **chg-assoc:ver=<d6/rfc>** command to change the M2PA version on the association used by the signaling link to match the configured M2PA version of the M2PA peer.
 - Use the **chg-assoc:open=yes** command to activate the M2PA association used by the signaling link.
 - Activate the signaling using the **act-slk:loc=xxxx:link=yy** command.

2. Otherwise change the M2PA version at the M2PA peer to match the version configured for the signaling link/association at the Eagle.

3. If the fault is not cleared contact the *Customer Care Center*, see page 1-12.

1333 - IPGW RCVD MSG DISCARDED

When processing a received PDU at the IPGWx L2 layer, various errors can be detected which cause the MSU to be pegged and discarded. The SG responds to a number of these MSU's with error messages and transmits them to the customer. Some scenarios exist where a received PDU causes an error to be pegged, the message to be discarded, and the SG to not respond with an error message. A new UIM is issued when a PDU excluding UA ERROR messages is received at the IPGWx L2 layer and results in the SG discarding the message plus pegging an error count. The generation of this UIM is paced (every 30 seconds), and in situations where multiple messages are discarded within a 30 second window of time, a UIM is only generated for the first message discarded.

Corrective Maintenance

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0003.1333 CARD 1305,A INFO IPGW RCVD MSG DISCARDED
IP CONNECTION NAME=LONGASSSOCNAME12 ADPTR=SUA
REASON=Invalid Version (Error Code=0x02)
DIAGNOSTIC=ASP UP Rcvd; Version=0x02
Report Date:02-07-21 Time:16:20:19
    
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Table 3-26 summarizes why the UIM was issued. The “reason” text in the UIM identifies why the UIM was displayed. Look at the reason and take action based on that field. Most of the time, to correct the issue, the customer needs to stop issuing the message. The UIM’s diagnostic field usually indicates which message was received

Table 3-26. SG Received Messages Discarded

REASON MSG DISCARDED AND PEGGED	UIM 'REASON' TEXT	UIM 'DIAGNOSTIC' TEXT
PDU received with invalid version	Invalid Version (Error Code=0x01)	<msg rcvd> Rcvd; Version=<version value rcvd> Ex. ASP-Inactive Rcvd; Version=0x02
1. PDU has unsupported class 2. PDU received was M3UA DATA on an SUA Association. 3. PDU received was SUA CLDT/CLDR on an M3UA Association	Unsupported Message Class (Error Code=0x03)	Class=<Message Class Value>; Type=<Message Type Value> Ex: Class=0x09; Type=0x01
PDU has unsupported type	Unsupported Message Type (Error Code=0x04)	Type=<Msg Type Value >; Class=<Message Class Value > Ex: Type=0x15; Class=0x02
ASP-ACTIVE contains an unsupported traffic mode Type or a Traffic Mode Type that is inconsistent with the presently configured mode for the AS.	Unsupported Traffic Mode (Error Code=0x05)	<MSG> Rcvd; Mode=<traffic mode received > Ex : ASP-Active Rcvd; Mode=0x03
1. PDU received was DAVA/DUNA/DRST/DUPU in the ASP-Inactive/ASP-Active States(end nodes shouldn't generate these) 2. ASP-UP received while in ASP-ACTIVE state 3. ASP-ACTIVE received while in ASP-DOWN state	Unexpected Message (Error Code=0x06)	1. DUNA Msg Rcvd 2. DAVA Msg Rcvd 3. DRST Msg Rcvd 4. DUPU Msg Rcvd 5. ASP-UP Rcvd while in ASP-Act State 6. ASP-Act Rcvd while in ASP-Down State

Table 3-26. SG Received Messages Discarded (Continued)

REASON MSG DISCARDED AND PEGGED	UIM 'REASON' TEXT	UIM 'DIAGNOSTIC' TEXT
<p>1. PDU could not be decoded or invalid length.</p> <p>2. ASP-UP-ACK/ASP-DOWN-ACK/ASP-ACTIVE-ACK/ASP-INACTIVE-ACK received in the ASP-Inactive/ASP-Active States while in server mode (not client)</p> <p>3. ASP-INACTIVE-ACK received while in client mode and in ASP-ACTIVE state</p> <p>4. CLDT/CLDR /DATA contains multiple routing contexts</p>	<p>Protocol Error (Error Code=0x07)</p>	<p>1. <Message> Decode Failed</p> <p>2. <Message> Encode Failed</p> <p>3. <Message> Length Invalid</p> <p>4. ASP-UP-Ack Rcvd</p> <p>5. ASP-Down-Ack Rcvd</p> <p>6. ASP-Active-Ack Rcvd</p> <p>7. ASP-Inactive-Ack Rcvd</p> <p>8. M3UA to MTP3 Conversion Failed</p> <p>9. <CLDT/CLDR> to SCCP Conversion Failed</p>
<p>ASP-UP received on a connection with ALW=NO</p>	<p>Refused Management Blocking (Error Code=0x0d)</p>	<p>ASP-UP Rcvd when ALW=NO</p>
<p>Sent if a UA Message is received with an invalid parameter value.</p>	<p>Invalid Parameter Value (Error Code=0x11)</p>	<p><msg rcvd> Rcvd; Value=<parameter value rcvd > Ex. ASP-Inactive Rcvd; Value=0x00000009</p>
<p>PDU has fixed length parameters of incorrect size</p>	<p>Parameter Field Error (Error Code=0x12)</p>	<p><msg rcvd> Rcvd; Length=<invalid parameter length > Ex. ASP-Inactive Rcvd; Length=0x0200</p>
<p>Sent if a UA message received contains an invalid parameter.</p>	<p>Unexpected Parameter (Error Code=0x13)</p>	<p><msg rcvd> Rcvd; Parm Tag=<parameter tag rcvd > Ex. DATA Rcvd; Parm Tag=0x0500</p>
<p>SUA DAUD PDU received lacks Routing Context and multiple RC's are configured for the connection</p>	<p>Destination Status Unknown (Error Code=0x14)</p>	<p><msg rcvd> Rcvd; No RC Rcvd</p>
<p>1. Invalid Network Appearance value received in a M3UA message</p> <p>2. DATA's network type doesn't match card's GPL type (M3UA only)</p>	<p>Invalid Network Appearance (Error Code=0x15)</p>	<p>1. <Msg Type> Rcvd; NA=<NA value rcvd > Ex: DAUD Rcvd; NA=0x00000011</p> <p>2. DATA Network Type Mismatch</p>
<p>1. PDU is missing one or more mandatory parameters</p> <p>2. DATA contains no routing context and the connection the PDU was received on is associated with more than 1 routing context</p>	<p>Missing Parameter (Error Code=0x16)</p>	<p>1. <Msg Type> Rcvd; Missing Tag=<tag value > Ex: CLDT Rcvd; Missing Tag=0x0006</p> <p>2. Hdr Len Invalid</p>
<p>1. ASP-ACTIVE received with routing context but no routing key(s) are provisioned for AS</p> <p>2. CLDT/CLDR's network type doesn't match card's GPL type</p> <p>3. PDU contains one or more routing contexts that could not be matched to one associated with the connection the PDU was received on</p>	<p>Invalid Routing Context (Error Code=0x19)</p>	<p>For this error code, use existing UIM "Mismatched UA Routing Context" in [16] only if the message is still processed. If the message is discarded, issue UIM format 62.</p> <p><msg rcvd> Rcvd; RC=<routing context value> Ex: DAUD Rcvd; RC=0x00000008</p>

Table 3-26. SG Received Messages Discarded (Continued)

REASON MSG DISCARDED AND PEGGED	UIM 'REASON' TEXT	UIM 'DIAGNOSTIC' TEXT
ASP-ACTIVE received without routing context and no routing key(s) are provisioned for AS	No Configured AS for ASP (Error Code=0x1a)	<msg rcvd> Rcvd; No RC Configed
CLDT/CLDR/DATA received while in the ASP-Inactive State (server mode)	Invalid ASP State	1. CLDT Rcvd while in ASP-Inact State 2. CLDR Rcvd while in ASP-Inact State 3. DATA Rcvd while in ASP-Inact State
Received a PDU and no AS is configured	Association has no configured AS.	<MSG Type> Rcvd Ex: ASP-Active Rcvd
Received a MSU in an invalid link state	Link State not ISNR	MSU Rcvd; link state=<current link state> Ex. MSU Rcvd when link state OOS
Received an Invalid SCCP message type (TALI only)	Received Invalid SCCP Message Type	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
Received an Invalid SCCP message class (TALI only)	Received Invalid SCCP Message Class	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
SCCP called party information not present (TALI only)	SCCP Called Party Not Present	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
SCCP calling party information not present (TALI only)	SCCP Calling Party Not Present	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
A message was discarded and there is no error code.	No ERR Received	Reason Unknown
Attempting to assign the ASP ID while in the ASP Active or Inactive States.	Invalid ASP ID(Error Code=0xf)	ASP ID must be assigned in ASP-Down

-
2. Otherwise change the M2PA version at the M2PA peer to match the version configured for the signaling link/association at the Eagle.
-
3. If the fault is not cleared contact the *Customer Care Center*, see page 1-12.
-

1334 - IPGW TX MSG DISCARDED

A new UIM is issued for message discards in the transmit path. The generation of this UIM is paced (every 30 seconds), and in situations where multiple messages are discarded within a 30-second window of time, a UIM is only generated for the first transmitted message that is discarded.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0003.1334 CARD 1305,A INFO      IPGW TX MSG DISCARDED
      IP CONNECTION NAME=LONGASSSOCNAME ADPTR=M3UA
      REASON=M3UA Conversion Error
      DIAGNOSTIC=DATA TX Failed; UA Protocol Error
      Report Date:02-07-21 Time:16:20:19
    
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Correct the problem based on the “reason” text displayed. The following reasons listed in Table 3-27 cause a discard in the transmit path and appear in this UIM.

Table 3-27. SG Messages Discarded in the Transmit Path

UIM 'REASON' TEXT	UIM SPECIFIC TEXT
No SS7 Route to Destination	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
No Routing Key Available	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
No Connection Available for Point Code	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
No Connection Available for Routing Key	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
Congested Connection	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
Invalid SCCP Message Type	Use existing UIM # 1023 - “SCCP rcvd unknown msg type”. See reference [18].
Invalid SCCP Message Class	Use existing UIM # 1025 - “SCCP rcvd inv msg class”. See reference [18].
Circular Routing	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
Invalid SIO for SUA	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
M3UA Conversion Error	MTP3 to M3UA Conversion Failed
SUA Conversion Error	<UDT/XUDT/UDTS/XUDTS> to SUA Conversion Failed
AS-Pending overflow	Max MSUs queued for pended AS or Admin removal of Pended AS/Rtekey

Table 3-27. SG Messages Discarded in the Transmit Path (Continued)

UIM 'REASON' TEXT	UIM SPECIFIC TEXT
AS Timer TR Expired	<# of buffers in queue> Pended MSUs discarded Ex: 5 Pended MSUs discarded
Reroute Failure	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###
Unexpected for APC	SIO=xx OPC=&&-###-###-### DPC=&&-###-###-###

1335 - Table Information

An update to the SCCP contained an invalid table identifier.

Example

```

RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0003.1335 CARD 1105 INFO Table Information
Table 4294967296 Invalid Table ID
Report Date:02-07-21 Time:16:20:19
    
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1336 - IPGW UA ERROR MSG RECEIVED

This UIM is issued for message discards in the transmit path. The generation of this UIM is paced (every 30 seconds), and in situations where multiple messages are discarded within a 30-second window of time, a UIM is only generated for the first transmitted message that was discarded.

This UIM is being displayed because the customer is sending an error message to the SG. The following is a list of all the possible error codes that can appear in the UIM for received UA ERROR messages. Each one has the error code appended in parenthesis.

- Invalid Version (0x01)
- Unsupported Message Class (0x03)
- Unsupported Message Type (0x04)
- Unsupported Traffic Mode (0x05)
- Unexpected Message (0x06)
- Protocol Error (0x07)
- Invalid Stream Identifier (0x09)
- Refused Management Blocking (0x0d)
- ASP Identifier Required (0x0e)
- Invalid ASP Identifier (0x0f)
- Invalid Parameter Value (0x11)
- Parameter Field Error (0x12)
- Unexpected Parameter (0x13)
- Destination Status Unknown (0x14)
- Invalid Network Appearance (0x15)
- Missing Parameter (0x16)
- Invalid Routing Context (0x19)
- No Configured AS for ASP (0x1a)
- Subsystem Status Unknown (0x1b)
- Invalid Loadsharing Label (0x1c)

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0003.1336 CARD 1305,A INFO      IPGW UA ERROR MSG RECEIVED
      IP CONNECTION NAME=association1 ADPTR=M3UA
      ERROR CODE=Missing Parameter (0x16)
      Report Date:02-07-21 Time:16:20:19
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

1337 - UA HEARTBEAT TIMEOUT

If T(beat ack) expires before a Heartbeat Ack message is received from the customer, the association is torn down. A new UIM is issued when the association is torn down and the existing format I53 is used for this UIM. The generation of this UIM is paced (every 30 seconds).

Example

```
RLGHNCXA21W 00-02-07 12:01:43 EST EAGLE 35.0.0
0003.1337 CARD 1305,A INFO UA HEARTBEAT TIMEOUT
ANAME = LONGASSOCNAME1 M3UA
```

Legend

ANAME. Long Association Name

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. If this UIM is displayed on the screen, then the connection is torn down. Need to follow steps to reestablish the connection.
 2. If this scenario keeps repeating after reestablishing a connection, then there is a problem with the connection and that will need to be investigated.
-

1338 - SCCP did not route - no PC in CgPA

GTT on CgPA PC is required, but CgPA PC is not present in the MSU.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 35.0.0
0112.1338 CARD 1103,A1 INFO SCCP did not route - no PC in CgPA
SIO=03 OPC= 001-001-001 DPC= 002-002-002
SCCP MSG TYPE=04
```

```
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC= 003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=02 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC= 001-001-001 SSN=004
LSN=A1234567
```

Legend

- ADDR. Address
- CDPA. Called party address
- CGPA. Calling party address
- DPC. Destination point code
- GTI. Global title indicator
- LSN. Linkset name
- MSG TYPE. Message type
- NAI. Nature of address indicator
- NI. Network indicator value
- NP. Numbering plan
- OPC. Originating point code
- PC. Point code
- PCI. Point code indicator
- RI. Routing indicator
- SIO. Service information octet
- SSN. Subsystem number
- SSNI. Subsystem number indicator
- TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

Corrective Maintenance

1339 - SCCP did not route - no dflt Clg PC Set

GTT on CgPA is required, CgPA GTI=0, so GTT on CgPA PC is attempted, but the default CgPA PC set in the SCCPOPTS table is not provisioned.

Example

```
RLGHNCXA21W 00-04-18 19:02:05 EST EAGLE 35.0.0
0112.1339 CARD 1103,A1 INFO SCCP did not route - no dflt Clg PC Set
SIO=03 OPC=001-001-001 DPC= 002-002-002
SCCP MSG TYPE=04
CDPA: NI=1 RI=0 GTI=04 SSNI=1 PCI=1
      TT=250 NP=04 NAI=010 ADDR=123456789012345678901
      PC= 003-003-003 SSN=005
CGPA: NI=1 RI=0 GTI=02 SSNI=1 PCI=1
      TT=100 NP=07 NAI=012 ADDR=012345678901234567890
      PC= 001-001-001 SSN=004
LSN=A1234567
```

Legend

ADDR. Address

CDPA. Called party address

CGPA. Calling party address

DPC. Destination point code

GTT. Global title indicator

LSN. Linkset name

MSG TYPE. Message type

NAI. Nature of address indicator

NI. Network indicator value

NP. Numbering plan

OPC. Originating point code

PC. Point code

PCI. Point code indicator

RI. Routing indicator

SIO. Service information octet

SSN. Subsystem number

SSNI. Subsystem number indicator

TT. Translation type

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. This indicates that Enhanced GTT was attempted, but the GTT selectors lookup failed. GTT selectors are GTI & TT (along with NP & NAI for ITU MSUs with GTI=4). If this MSU should have been routed, continue to Step 2.
-

2. Use the following command to check whether GTT selectors in the arrived MSU are provisioned in SCCPOPTS table:

```
rtrv=sccpopts
```

3. If the SCCPOPTS table does not have an entry with the GTT selectors in the arrived MSU, use the following command to add a record with the GTT selectors in the arrived MSU to the SCCPOPTS table:

```
ent=sccpopts
```

1345 - CRD Auto-Clear Sent to All MTP Cards

EAGLE 5 ISS generates this UIM when Circular Route Auto-Recovery procedure clears the Circular Route Detection (CRD) status of a destination that was marked prohibited.

Example

```
RLGHNCXA21W 03-04-18 19:02:05 EST EAGLE 36.0.0
1234.1345 CARD 1203 INFO CRD Auto-Clear Sent to All MTP Cards
DPC=001-001-001
Report Date:06-06-19 Time:16:20:19
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action is necessary.

Corrective Maintenance

1349 - MSU invalid size – discarded

An MSU less than 5 bytes or greater than 279 bytes was detected by the MTP layer 3 software in an ATM card. A four byte MSU may cause the ATM connection to bounce (four byte PDUs are used for SSCF control). MSU length limit is 279 bytes.

Example

```
tklcl1190801 06-09-16 13:36:27 GMT EAGLE5 35.1.0-56.31.0
9207.1349 CARD 2308 INFO MSU invalid size - discarded
LEN=4
SIO=00 OPC= 000-018-002 DPC= 008-050-008
LSN=test
Report Date:06-09-16 Time:13:36:26
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1355 - Card Integ Chk: MSU cksum err

An MSU was discarded because a card received an MSU which failed checksum validation.

Example

```
RLGHNCXA21W 06-09-07 16:20:19 GMT EAGLE5 35.6.0
0008.1355 CARD 1301 INFO Card Integ Chk:MSU cksum err
SIO=03 OPC=001-001-001 DPC=002-002-002
DATA=12 34 56 78 90 12 34 56 78 90 12 34
56 78 90 12 34 56 78 90 12 34 56 78
Source Loc: 1303 Destination loc: 1301
Report Date: 09-07-06 Time:16:20:19
```

NOTE: On a LIM card the destination ss7 port is shown after the card address (it is not printed when this uim is issued on a sccp card).

CARD 1301,a

Legend

DATA – Hex dump of USER PART data

DESTINATION LOC – Card receiving the MSU

DPC – Destination point code

OPC – Origination point code

SIO – Service information octet

SOURCE LOC – Card originating the MSU

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1359 - SCCP Looping Detected

When a SCCP Looping condition is found the mode of operation of the loopset will be notify or discard (based on provisioning). The mode of operation either only notifies the user by this UIM, or notifies the user by this UIM and discards the MSU. The data shown in the output will be from the original MSU, before any GTT modifications were applied to it.

A hop counter violation message is also sent by EAGLE to the UDTS. The message indicates either ANSI or ITU Networks based on the provisioned GTT Translation point code type.

Example

The following is an output example when the GTT feature is on but not EGTT.

```
stdcfg2b 07-01-17 03:43:11 EST UNKNOWN ????.?-56.44.0
0174.1359 CARD 1103 INFO SCCP Looping Detected
SIO=83 OPC= 002-001-000 DPC= 001-001-000
CDPA LENGTH=011 MSG TYPE=09
CDPA: AI=8b PC= 001-001-000 SSN=005 TT=001
ADDR=1946630340
LSN=e2e1
Report Date:07-01-17 Time:03:43:10
```

The following is an output example with the EGTT feature on.

```
stdcfg2b 07-01-17 05:31:22 EST UNKNOWN ???.?-56.44.0
0296.1359 CARD 1103 INFO SCCP Looping Detected
SIO=83 OPC= 002-001-000 DPC= 001-001-000
SCCP MSG TYPE=09
CDPA: NI=1 RI=0 GTI=02 SSNI=1 PCI=1
      TT=003 NP=--- NAI=--- ADDR=9195551234
      PC= 001-001-000 SSN=005
CGPA: NI=0 RI=1 GTI=00 SSNI=1 PCI=1
      PC= 002-002-002 SSN=000
LSN=e2e1 GTTSET=(3)
Report Date:07-01-17 Time:05:31:22
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

Analysis of measurements and messages is required to ensure messages are correctly being discarded.

NOTE: Entering the wrong data in the SCCP Loop Table and/or incorrectly connecting a GTT translation with a particular SCCP Loop Table entry could result in unwanted traffic loss.

Refer to the *Commands Manual* for more information using ENT/CHG/DEL/RTRV-LOOPSET commands.

1. Remove invalid or unwanted entries from the SCCP Loop Tables.

2. Create a valid SCCP Loop Table entry for a GTT translation if the available tables are valid for other translations, but not the one in error.

3. Set the "notify only" mode until confidence is gained in the EAGLE SCCP Loop Tables, this is also the recommended setting for initial provisioning with a subsequent change.

4. Periodic auditing of UIMs to ensure that valid messages are not being discarded.

1490 - Telnet terminal connection successful

Indicates that a telnet connection has been established with the EAGLE from the specified location, but no terminal has yet been selected.

Example

```
RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 31.3.0
0102.1490 CARD 1105,B INFO Telnet terminal connection successful
RIPADDR=192.168.57.52
RIPORT=2336
LIPADDR=192.168.53.46
LIPORT=23
```

Legend

LIPADDR. Local IP Address

LIPORT. Local TCP Port Number

RIPADDR. Remote IP Address

RIPORT. Remote TCP Port Number

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1491 - Terminal enabled

This message indicates that the specified telnet terminal has been successfully selected by a user via telnet.

Example

```
RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 31.3.0
0105.1491 SYSTEM INFO Terminal enabled.
TERMINAL 20
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

Corrective Maintenance

1492 -Terminal failed

This message indicates that the specified telnet terminal has been disconnected.

Example

```
RLGHNCXA21W 00-04-18 18:59:30 EST EAGLE 31.3.0
0105.1492    SYSTEM      INFO    Terminal failed.
           TERMINAL 20
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1493 -SSH Host Keys Regenerated

This message indicates that the OA&M IP Security Enhancements feature has successfully generated new host public/private key pairs. This occurs during cold restarts of an IPSM card. During initialization, this UIM displays the new key.

NOTE: This UIM indicates a new public/private key is in effect. The old key is now invalid. The new key must be installed on SSH clients (on the FTRA) before any connections are permitted.

Example

```
RLGHNCXA21W 03-08-18 18:59:30 EST EAGLE 30.2.0
0105.1493    SYSTEM      INFO    SSH Host Keys Regenerated
           DSA Server Host Key FTRA-formatted Fingerprint=
           xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

1. Record the DSA Server Host Key FTRA-formatted fingerprint that is in the last line of the UIM.
-

2. Save the fingerprint.

The fingerprint will be installed on the FTFA if the FTP Retrieve and Replace feature is used.

NOTE: Refer to the *FTP-Based Table Retrieve Application (FTFA) User Guide* for the fingerprint installation procedure.

1494 -SSH Host Keys Loaded

This message indicates that the OA&M IP Security Enhancements feature has successfully preserved existing host public/private key pairs. This occurs during reloads, init-card, and alw-card operations. During initialization, this UIM shows the state of the existing host key.

Example

```
RLGHNCXA21W 03-08-18 18:59:30 EST EAGLE 30.2.0
0105.1494     SYSTEM      INFO    SSH Host Keys Loaded
              DSA Server Host Key FTFA-formatted Fingerprint=
              xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1495 - Awaiting LSMS bulk download

This UIM is issued after the CHG-DB:ACTION=BEGINEDL command is successfully processed. It repeats at 5 minute intervals thereafter until the database download stream from the LSMS begins. As soon as the LSMS starts sending data, UIM 1496: "LSMS bulk download in progress" is issued instead.

Example

```
tekelecstp 99-03-09 12:01:43 EST EAGLE 35.0.0
5061.1495     SYSTEM      INFO    Awaiting LSMS Bulk Download
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1496 - LSMS bulk download in progress

This UIM is issued as soon as the first bulk download record is received from the LSMS, and then at 5 minute intervals thereafter, until the LSMS signals to the system that the entire download stream has been sent. This UIM lets the operator now that the LSMS has actually started sending the DB download stream to the system, and that the transmission of the download stream is still underway.

Example

```
tekelecstp 99-03-09 12:01:43 EST EAGLE 35.0.0
5061.1496 SYSTEM INFO LSMS bulk download in progress
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1497 - LSMS bulk download complete

This UIM is issued as LSMS signals to the system that the entire download stream has been transmitted. The system operator may now complete the bulk download progress by issuing one of the following:

- CHG-DB:ACTION=FINISHEDL command to copy the LNP DB from the BLM card to the OAM fixed disks,
- or
- CHG-DB:ACTION=CANCELEDL command to prevent the copy to the OAM fixed disks

Example

```
tekelecstp 99-03-09 12:01:43 EST EAGLE 35.0.0
5061.1497 SYSTEM INFO LSMS bulk download complete
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

1498 - LSMS bulk download cancelled at LSMS

This UIM is issued when LSMS signals to the system that the bulk download has been cancelled at the LSMS GUI. The UIM informs the system operator that the bulk download is no longer in progress. The operator can cancel the bulk download (from the system) by issuing CHG-DB:ACTION=CANCELEDL, which will once again allow the system to accept LNP DB update requests.

Example

```
tekelecstp 99-03-09 12:01:43 EST EAGLE 35.0.0  
5061.1498 SYSTEM INFO LSMS bulk download cancelled at LSMS
```

Alarm Level: No alarm condition. The message is informational only.

Recovery

No action necessary.

4

Measurements

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Introduction

This section describes EAGLE 5 ISS measurements. Measurements provide support for:

- STP performance management
- SS7 traffic monitoring and engineering
- Specific feature performance analysis (STPLAN)

Measurements provide operations and maintenance personnel with network performance and STP performance data in accordance with:

- Telcordia GR-82-CORE
- Telcordia GR-310-CORE
- Telcordia GR-478-CORE
- Telcordia GR-778-CORE
- Telcordia GR-2878-CORE

The primary functions of Measurements are as follows:

- **Collection**

Measurements are collected at 5, 30, and 60-minute intervals.

- **Storage**

Measurements are stored in dedicated RAM tables and/or disks after collection. Most are retained for 24 hours. LNP, INP, G-Port, MAP Screening, and Daily EIR measurements are retained for 7 days.

- **Retrieval**

Measurements data is retrieved from the RAM storage area and/or disk. ACTIVE measurement data is retrieved and reported from the application cards.

- **Reporting**

Measurement reports are available on-demand/scheduled as follows:

- 30-minute intervals (scheduled and on-demand)
- cumulative day-to-hour (on-demand)
- daily (scheduled and on-demand)
- hourly LNP and INP (scheduled and on-demand)

- active 5 minute data (on-demand)
- optional 15-minute interval (refer to “Optional 15-Minute Measurements” on page 4-9)

There are twelve types of measurement reports on the EAGLE 5 ISS. The measurement reports fall into four categories. The categories and types of measurement reports are as follows:

1. Traffic Engineering Reports
 - STP system totals (SYSTOT)
 - Component measurements (COMP)
 - Network management (NM)
2. Error Tracking/Troubleshooting Reports
 - Daily availability (AVLD)
 - Day-to-hour availability (AVLDTH)
 - Availability (AVL)
3. Daily Maintenance Reports
 - Daily maintenance measurements (MTCD)
 - Day-to-hour maintenance measurements (MTCDTH)
 - Hourly maintenance measurements (MTCH)
4. Network Usage Reports
 - Gateway (GTWY)
 - Record Base (RBASE)
5. Maintenance Status Reports
 - Maintenance Status Indicators (MTCS)

OAM Based Measurements

The collection of measurements is a separate task from reporting. Measurements collection is activated automatically upon system power-up, or through administrative commands. Collection is organized by ENTTYPE and reporting period. Collection occurs per link every 5 minutes, and separately every 30 minutes. Measurements are generated on the application cards and periodically collected by the OAM and stored for later retrieval on the TDMs. The command related to measurements collection is **chg-meas**.

Measurements

Reports can be scheduled or printed on-demand. Scheduled measurements are directed to the Traffic Unsolicited Output Message group. No other unsolicited output is sent to this output group. Scheduled and on-demand reports are accessible by the following administrative commands:

- **chg-meas** - Turns collection on/off and schedules automatic report generation.
- **rtrv-meas-sched** - Verifies collection state and automatic report schedules.
- **rept-meas** - Generates individual measurement reports for schedule-enttype-entid combinations.
- **chg-trm** - Used to configure terminals to collect measurement reports on a system that contains less than 700 links.

Refer to the *System Administration Manual - System Management* for information on configuring the measurements terminal.

Before a report is printed, measurement collection must be activated. Refer to the *Commands Manual* for more information on how to use measurement commands.

Measurements Platform

The Measurements Platform is required for an EAGLE 5 ISS with more than 700 links. It provides a dedicated processor for collecting and reporting STP, LNP, INP, G-FLEX, G-PORT, and EIR measurements data. The platform consists of multiple Measurement Collection and Polling Module (MCPM) cards in a primary/secondaries configuration, in which a single primary MCPM performs all collection and reporting functions. The secondary MCPM cards serve as backup for the primary. The EAGLE 5 ISS interface is via the standard IMT bus and allows communications with the network elements and the OAM. The interface to the customer's network supports the FTP transfer of Measurements reports to an FTP server.

The Primary MCPM maintains constant communication with all Secondary cards as a way of each monitoring the health status of the other. If the primary MCPM fails before or during collection, a secondary MCPM card assumes the Primary role and begins/continues collection.

Enabling the Measurements Platform feature (feature bit is turned on), allows the Measurements Platform to be provisioned and tested without transferring measurement functionality from the OAM to the Platform. Once the Platform hardware, software, and ethernet connections have been provisioned and verified, the transfer of measurements functionality from the OAM to the Measurement Platform is initiated by setting the *Measurements Platform Installed* bit, which is set by the system only once. From the point that the *Measurements Platform Installed* bit is set and initial data transfer has occurred, the measurements functionality of the OAM is limited to operator interface for measurement

configuration and on-demand report requests. The Measurements Platform assumes the collection duties and stores the collected data in MCPM RAM. Following collection, scheduled reports are automatically generated and transferred to the customer's FTP server via the FTP interface.

NOTE: Existing FTP file server reports are overwritten by subsequent requests that produce the identical file name.

Reports can be scheduled or printed on-demand. Scheduled and on-demand reports are accessible by the following administrative commands:

- **chg-measopts** - Used to enable or disable the automatic generation and FTP transfer of scheduled measurement reports to the FTP server.
- **rept-stat-meas** - Reports the status of the measurements subsystem including card location and state, Alarm level, and Subsystem State.
- **rept-ftp-meas** - Manually initiates generation and FTP transfer of a measurements report from the MCPM to the FTP server.
- **rtrv-measopts** - Generates a user interface display showing the enabled/disabled status of all FTP scheduled reports.

Refer to the *Commands Manual* for more information on how to use measurement commands.

Report Files

Report files are divided into three sections:

1. System header

The system header size varies depending on embedded data. A typical size of 250 bytes is used in all calculations in the examples in this manual.

2. Individual report header

The report header size varies depending on the report type, but is always the same size for an individual report type. The size of the report data section varies depending on the number of entities being reported, and the particular data items being reported for each entity (i.e., a count of 0 versus a large count).

3. Report data

For the estimates given in this manual, 6 characters are assumed for each data item, including the comma delimiter. Other variable quantities, such as the number of entities in the report, are stated with each example.

The output file sizes calculated in this manual are rough estimates only. They are not intended to be an exact representation of output file size, which could vary significantly depending on the configuration of a particular system.

Table 4-1. Measurements Platform System Header

Field Name	Description	Unit
CLLI	The Common Language Location Identifier for the STP	ASCII Text
SWREL	The software release currently running on the STP	ASCII Text
RPTDATE	The date on which the report was generated	YYYY-MM-DD
RPTIME	The time at which the report was generated (24 hour clock)	HH:MM:SS
TZ	An abbreviation for the time zone	ASCII Text
RPTTYPE	The type of report being generated	ASCII Text
RPTPD	The period of the report	ASCII Text
IVALIDDATE	The date for the report interval	YYYY-MM-DD
IIVALSTART	The starting time of the report interval	HH:MM:SS
IIVALEND	The ending time of the report interval	HH:MM:SS
NUMENTIDS	The number of entities contained in the report	Integer

Example header format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IIVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "31.3.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"STP SYSTEM TOTAL MEASUREMENTS ON
STP", "LAST", "1999-01-17", "15:00:00", "15:30:00", 1<cr><lf>
<cr><lf>
```

File Naming Conventions

File names consist of fields separated by underscores and followed by the .csv extension. This format allows the files to be readily identified as a comma-separated variable format. Due to the overall length of the file names, long file names (beyond 8.3 format) are utilized.

CLLI-based Names Disabled

These file names consist of three fields identified as follows:

1. Up to 13 characters for the report type (sched-entity, i.e. systot-stp, mtcnth-lnkset)
2. 8 characters for the report date (yyyymmdd). This reflects the date the data is generated.
3. 4 characters for the ending report time (hhmm). This is defined as the common boundary between the end of the last period and the beginning of the next period. For example, the half hour from 2:00PM to 2:30PM would end at 1430. A day-to-hour period ends on the hour. A daily period

or specific request for the final hour or half-hour of a day ends at 2400, midnight.

Examples of output file names:

- Half hourly STP system totals generated 1999-02-24 at 15:22:00 for the last period would be (the period from 1430 to 1500 on 02/24/99):
systot-stp_19990224_1500.csv
- Maintenance daily linkset report generated 2001-07-17 at any time would be (the period from 0000 to 2400 on 07/16/01):
mtcd-lnkset_20010716_2400.csv
- Maintenance day-to-hour link report generated 2003-04-29 at 08:32:00 would be (the period from 0000 to 0800 on 04/29/03):
mtcdth-link_20030429_0800.csv
- Half hourly STP system totals generated 1999-02-23 at 00:15:20 for the specific end time 0030 would be (the period from 0000 to 0030 on 02/23/99):
systot-stp_19990223_0030.csv
- Half hourly STP system totals generated 1999-02-24 at 00:15:30 for the specific end time 2330 would be (the period from 2300 to 2330 on 02/23/99):
systot-stp_19990223_2330.csv
- Half hourly STP system totals generated 1999-02-24 at any time for the specific end time 2400 or 0000 would be (the period from 2330 to 2400 on 02/23/99):
systot-stp_19990223_2400.csv

Some applications will reformat fields when opening the .csv file. Use a text editor when opening .csv files to examine file content as presented in the output file examples in this document.

CLLI-based Names Enabled

These file names consist of four fields identified as follows:

1. Up to 11 characters for the CLLI of the EAGLE 5 ISS.
2. Up to 13 characters for the report type (sched-entity, i.e. systot-stp, mtcdth-lnkset)
3. 4 characters for the report date (mmdd) .This reflects the date the data is generated.
4. 4 characters for the ending report time (hhmm). This is defined as the common boundary between the end of the last period and the beginning of the next period. For example, the half hour from 2:00PM to 2:30PM

Measurements

would end at 1430. A day-to-hour period ends on the hour. A daily period or specific request for the final hour or half-hour of a day ends at 2400, midnight.

Examples of output file names:

- Half hourly STP system totals generated 02-24 at 15:22:00 for the last period would be (the period from 1430 to 1500 on 02/24:

wnrtpaah01w_systot-stp_0224_1500.csv

- Maintenance daily linkset report generated 07-17 at any time would be (the period from 0000 to 2400 on 07/16:

wnrtpaah01w_mtcd-lnkset_0716_2400.csv

- Maintenance day-to-hour link report generated 04-29 at 08:32:00 would be (the period from 0000 to 0800 on 04/29:

wnrtpaah01w_mtccth-link_0429_0800.csv

- Half hourly STP system totals generated 02-23 at 00:15:20 for the specific end time 0030 would be (the period from 0000 to 0030 on 02/23):

wnrtpaah01w_systot-stp_0223_0030.csv

- Half hourly STP system totals generated 02-24 at 00:15:30 for the specific end time 2330 would be (the period from 2300 to 2330 on 02/23):

wnrtpaah01w_systot-stp_0223_2330.csv

- Half hourly STP system totals generated 1999-02-24 at any time for the specific end time 2400 or 0000 would be (the period from 2330 to 2400 on 02/23/99):

wnrtpaah01w_systot-stp_0223_2400.csv

Some applications will reformat fields when opening the .csv file. Use a text editor when opening .csv files to examine file content as presented in the output file examples in this document.

Optional 15-Minute Measurements

The Measurements Platform has the capability to collect and report STP, link, and linkset measurements on a 15-minute basis. All of the measurements available for 30-minute collection are available every 15 minutes when the feature option is operational.

The feature is controlled by a feature access key and a measurement option. Turning on the feature requires a part number. The feature cannot be turned off once turned on. It is a Permanently ON feature. Upon turn on, the collection period defaults to the 30-minute option. Refer to the *Database Administration Manual - System Management* for details on implementing the 15-minute measurements feature.

The feature becomes operational when the collection period has been changed to 15 minutes. The collection period is changed from 30 minutes to 15 minutes (and vice versa) by using the **chg-measopts:enable15mincollect** command. Refer to the *Commands Manual* for detailed usage information. When the 30-minute option is selected, measurements data is collected and reported each half-hour at hh:00 and hh:30. When the 15-minute option is selected, measurements data is collected and reported four times each hour at hh:00, hh:15, hh:30, and hh:45. The current state of the option is displayed with the Measurements Platform options. Report types supported by 15-minute measurements are:

- systot
- comp
- gtwy
- avl

After 15-minute measurements collection and reporting is operational, 15-minute reports are retrieved using **rept-meas** or **rept-ftp-meas** commands. Refer to the *Commands Manual* for detailed usage information.

Data Collection

The various scenarios for making 15-minute collection operational, and the impact on data collection are shown in Table 4-2. The first column specifies the four quarter-hour intervals during which 15-minute collection could be made operational. The second column identifies the impact of making 15-minute collection operational during the specified time window. If 15-minute collection is made operational during the first or third quarter hour, there is no impact on the collected data. If 15-minute collection is made operational during the second or fourth quarter hour, the data that is collected and stored for that quarter-hour actually represents 30 minutes of data. This is not an error and no measurements data is lost. Rather it is a side effect of making 15-minute collection operational after the previous quarter-hour boundary has already passed.

Table 4-2. Enabling 15-Minute Measurements - Impacts

Time Window for Making 15-Minute Measurements Operational	Impact on Data Collection	Data Loss
<i>xx00 to xx15</i>	15 minutes of data will be collected for the quarter-hour <i>xx15</i>	<i>None</i>
<i>xx15 to xx30</i>	The <i>xx15</i> interval will contain no data. The <i>xx30</i> interval will contain 30 minutes of data	None

Table 4-2. Enabling 15-Minute Measurements - Impacts (Continued)

Time Window for Making 15-Minute Measurements Operational	Impact on Data Collection	Data Loss
<i>xx30 to xx45</i>	15 minutes of data will be collected for the quarter-hour <i>xx45</i>	None
<i>xx45 to xx00</i>	The <i>xx45</i> interval will contain no data. The <i>xx00</i> interval will contain 30 minutes of data	None

Some quarter-hour measurements data may not be available for 24 hours after making 15-minute collection operational. This condition exists for quarter-hour intervals for which 15-minute collection has not yet occurred. Data that was collected on a 30-minute basis is available for reporting for up to 24 hours after it is collected. Once the 15-minute collection option is enabled, this data remains available on a half-hour basis (*xx00* and *xx30*) but is not available on a quarter-hour basis (*xx15* and *xx45*). After the 15-minute collection option has been enabled for 24 hours, all 15-minute measurements data is available on a quarter-hour basis (*xx00*, *xx15*, *xx30*, and *xx45*).

In addition, full 30-minute data coverage will not be available until 24 hours after making 15-minute collection not operational. Reports for specific periods will always contain the amount of data collected for that period. If SEAS reporting is enabled, for 24 hours after 15-min measurements are made not operational, 30-minute demand SEAS reports for time periods prior to feature status change will only contain 15 minutes of data, and SEAS will not support reporting at the *xx15* and *xx45* times.

Also note that in the exception case of making 15-minute collection not operational, if the feature is made not operational in the first 15 minutes of a half-hour (*xx00-xx15* or *xx30-xx45*) and a demand report is requested in the second 15 minutes of a half-hour (*xx15-xx30* or *xx45-xx60*) for *period=last* (or *period unspecified*), the report given will be the last 15-minute interval (*xx00-xx15* or *xx30-xx45*), not the last collected 15-minute interval (*xx45-xx00* or *xx15-xx30*). Note that collection did not occur during this 15-minute period, and Measurements data not current will be issued. To get a report for the last collected 15-minute interval, *period=specific* has to issued with the command with the correct QH/HH value.

If the feature control status of 15-minute measurements is turned on and a report is requested for the active interval (*period=active*) prior to the next scheduled measurements collection (based on the current 15-minute measurements status), then the data will be correct but the starting time for the period shown in the report will be incorrect. As soon as the next scheduled collection occurs, then active reports will show the correct data and the correct starting time.

A similar limitation also exists for *period=last*. If the feature control status of 15-minute measurements is turned on and a report is requested for the last interval prior to the next scheduled measurements collection (based on the current 15-minute measurements status), then the start and end times for the period shown in the report will be incorrect. The data presented in the report will correspond to the start and end times. As soon as the next scheduled collection occurs, then *period=last* reports will show the correct start and end times and the corresponding data for that interval.

If collection has not occurred since changing the operation status, then *period=specific* needs to be issued to get the last period collected.

Report Parameters

Reports are available for the following entities:

- EIR - Equipment Identity Register
- LINK - Signaling link
- LNKSET - Linkset
- LNP - Local number portability
- LSDESTNI - Linkset destination network identifier
- LSORIGNI - Linkset originating network identifier
- MAPSCRN - Global Systems for Mobile Communications Mobile Application Part Screening Measurements
- NP - Intelligent network application part based number portability
- ORIGNI - Originating network identifier
- ORIGNINC - Originating network identifier for network cluster
- STP - All nodes
- TT - Translation type
- STPLAN - TCP-IP links

There are four accessible periods for which measurements may be reported:

1. *Last* is used to access the previous collection interval.
2. *Specific* is used to access a specific interval (one of the previous 48 half hour intervals).
3. *Active* is used to access measurements for the current collection interval.
4. *All* is used to access measurements for all collection intervals retained.

Reports

The tables that follow in this chapter define the parameters used in the measurement reports. Included in the tables are the event name, description and unit of measurement as described in Telcordia GR-82-CORE.

The Example Commands and the Example Outputs are separated according to the collection method used to collect and report measurements.

- OAM - Indicates measurements are collected by the OAM and stored for retrieval on the TDMs.
- MP - Indicates measurements are collected and stored by the Measurements Platform. Scheduled reports are automatically generated and transferred to the customer's FTP server via the FTP interface.

NOTE: The Status Event Name appearing in the Measurement Tables only appears when using the Measurements Platform. The Example Outputs and the Example Inputs are examples. Variations exist and are likely. Refer to the *Commands Manual* for complete (options, variables) information on command usage.

The Measurements Platform is required for systems with more than 700 links. In this case, the `chg-meas:collect=off` can be used to disable the output without affecting the actual collection. If OAM based scheduled reported are disabled via this mechanism, then the TRAF output group may be turned-off since there is no output directed to it.

STP System Totals (SYSTOT) Measurements

These measurements are used to monitor the overall performance of the STP.

Entity types: STP, Translation Type (TT), STPLAN

Accumulation interval: Every 30 minutes

Optional MP Accumulation Interval: Every 15 minutes

STP retention period: 24 hours

Reporting modes:: Scheduled, On-Demand

Accessible collection periods:: Last, Specific (MP)

enttype=stp

Example Commands:

OAM: `rept-meas:type=systot:enttype=stp`

MP: `rept-ftp-meas:type=systot:enttype=stp`

Table 4-3. STP System Total STP Measurements

Event Name	Description	Unit
CRSYSAL	Number of Critical System Alarms - The total number of critical system alarms.	peg count
DTAMSULOST	DTA MSUs Lost - The total number of MSUs that were discarded because the original MSU was too large to be encapsulated.	peg count
DURINTFL	Duration of Internal Node Failure - Total time that messages could not be switched to outgoing link (apart from any link interface failure).	milli-seconds
GFGTMATCH	G-Flex GTTs with Match - The total number of G-Flex Global Title Translations successfully completed.	peg count
GFGTNOMCH	G-Flex GTTs No Match - The total number of G-Flex Global Title Translations completed that did not match an entry in the GSM database.	peg count
GFGTNOLKUP	G-Flex GTTs No Look-up - The total number of G-Flex Global Title Translations that could not be looked up in the GSM database because of some error.	peg count
GTTPERFD	GTTs Performed - The total number of MSUs that successfully completed global title translation (GTT). This includes all GTT modes as well as translations on Global Title (digits), on CgPA PC and OPC (Point Codes), and on CgPA SSN (Subsystem).	peg count
GTTUN0NS	GTTs Unable to Perform - Diagnostic 0: No Translation for Address of Such Nature – The sum total of times that the specified type of translation in an MSU was not supported by the STP. This register contains the sum of the GTTUN0NS register in the systot-tt report and the CGGTTUN0NS register in the systot-cggtt report.	peg count
GTTUN1NT	GTTs Unable to Perform - Diagnostic 1: No Translation for This Address – The sum total of times that SCCP could not find a translation in the translation table. This includes Global Title translations, Point Code translations, and Subsystem translations. This register contains the sum of the GTTUN1NT register in the systot-tt report and the CGGTTUN1NT register in the systot-cggtt report.	peg count
IDPRMSERR	The total number of MSUs selected for IDPR service which could not be processed due to errors in encoding, decoding, or formatting.	peg count
IDPRMSFAIL	Total number of MSUs selected for IDPR service which fell through to GTT due to (1) no match on MSISDN in MNPDB, or (2) match on MSISDN but no association to RN or SP.	peg count
IDPRMSRCV	Total number of MSUs received and selected for IDPR service. This register includes counts for MSUs that resulted in both successful and unsuccessful MNPDB lookups.	peg count
IDPRMSSUCC	Number of MSUs selected for IDPR service for which the MNPDB lookup resulted in a match on MSISDN with association to an RN or SP.	peg count

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Table 4-3. STP System Total STP Measurements (Continued)

Event Name	Description	Unit
MASYSAL	Number of Major System Alarms - The total number of major system alarms.	peg count
MISYSAL	Number of Minor System Alarms - The total of minor system alarms.	peg count
MSIDPNOMCH	Total number of IDP messages that did not fully meet the criteria of the IDP Screening for Prepaid feature. These messages are relayed to their destination by GTT.	peg count
MSIDPMATCH	Total number of IDP messages that did meet the criteria of the IDP Screening for Prepaid feature. Instead of sending the IDP message onward, a Continue message is sent to the originating MSC. The criteria involves matching the following TCAP fields with Eagle Common Screening Lists: <ol style="list-style-type: none"> 1. CgPA and CdPA are provisioned in the In-Network Subscriber List. 2. The Teleservice and Service Key values are in the Service Key/Teleservice List. 	peg count
MSINVDPC	MSUs Rcvd – Invalid DPC - Number of MSUs received and discarded because the DPC could not be found in the STP routing table.	peg count
MSINVLNK	MSUs Discarded – Invalid Link - Number of MSUs discarded because of an incorrect SLC. (The SLC refers to a nonexistent link or the same link.)	peg count
MSINVSIF	MSUs Discarded – Invalid SIF - Number of MSUs that have been received and discarded because of an invalid SIF.	peg count
MSINVSIO	MSUs Rcvd – Invalid service indicator octet (SIO) - Number of MSUs received and discarded because the service requested in the service indicator octet (SIO) was not supported by the STP.	peg count
MSINVSLC	MSUs Discarded – Invalid SLC - Number of MSUs discarded because of an invalid SLC code in the ECO/COO.	peg count
MSNACDPC	MSUs Discarded – Inaccessible DPC - The total number of MSUs discarded because of an inaccessible DPC.	peg count
MSSCCPDISC	MSUs Discarded - Translation found, but provisioned ACTION caused the MSU to be discarded.	peg count
MSSCCPFL	MSUs Discarded – Routing Failure - Number of MSUs discarded due to an SCCP routing failure.	peg count
MSUDSCRD	MSUs Discarded – Gateway Screening - The total number of MSUs that failed gateway screening and were discarded. See linkset report for individual peg counts.	peg count
MSULOST1	MSUs Discarded – Level 2/Level 3 Queue Full - Number of MSUs discarded because the level 2 to level 3 queue was full.	peg count
MSULOST2	MSUs Discarded – Route On Hold Buffer Overflow - Number of MSUs discarded because the routing buffer was in overflow.	peg count

Table 4-3. STP System Total STP Measurements (Continued)

Event Name	Description	Unit
MSULOST3	MSUs Discarded – LS On Hold Buffer Overflow - Number of MSUs discarded because the linkset-on-hold buffer was in overflow.	peg count
MSULOST4	MSUs Discarded – Rcvd Queue Full - Number of MSUs discarded because the receive queue was full.	peg count
MSULOST5	MSUs Discarded – LIM Init - Number of MSUs discarded while the LIM card was initializing.	peg count
MSULOST6	MSUs Discarded - Number of MSUs discarded due to errors encountered during internal (IMT) transfer between cards.	peg count
NMSCCPMH	The current daily system-wide peak SCCP message handling load in transactions per second.	xact per second
OMSINVDPC	MSUs Originated – Invalid DPC - Number of MSUs with an invalid DPC.	peg count
ORIGMSUS	Originated MSUs - The total number of outgoing MSUs successfully passed to MTP level 2 for transmission, while carrying the STP point code in the OPC field.	peg count
ORMSUOCT	Originate MSU Octets - The total number of outgoing octets associated with MSUs carrying the STP point code in the OPC field. This includes octets added in MTP level 2 processing.	octets
OVSZMSG	Oversized MTP 3 Messages - Number of messages received by an HSL that exceeds 272 octets (level 3) and is discarded.	peg count
PKSCCPMH	The overall system-wide peak SCCP message handling load in transactions per second. Value is the highest recorded since it was last reset using the rept-stat-sccp:mode=peakreset command.	xact per second
SCCPLOOP	The total number of times that a GTT translation matched a Point Code in the STP's loopset entries resulting in either a notify or discard of an SCCP message.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
THRSWMSU	Through-Switched MSUs - The total number of MSUs that did not carry the STP point code in the OPC or the DPC, and were successfully passed to MTP level 2 for transmission.	peg count
TRMDMSUS	Terminated MSUs - The total number of incoming MSUs carrying the STP point code in the DPC.	peg count
TRMSUOCT	Terminated MSU Octets - The total number of octets associated with incoming MSUs carrying the STP point code in the DPC. Includes octets removed in MTP level 2 processing.	octets

Measurements

Table 4-3. STP System Total STP Measurements (Continued)

Event Name	Description	Unit
TSMSUOCT	Through-Switched MSU Octets - The total number of octets associated with MSUs that did not carry the STPs point code in the OPC or the DPC, and were successfully passed to MTP level 2 for transmission.	octets
XLXTELEI	X-List Entry Not Created - The total number of times that an x-list was not created because the Exception List Exclusion Indicator (ELEI) for the cluster is set to <i>yes</i> .	peg count
XLXTSPACE	X-List Entry Not Created - The total number of times an x-list entry was not created because there is no more space in the route/destination table.	peg count
MSUSCCPFLR	MSU SCCP Failure - Total MSUs Discarded Due to SCCP Conversion Failure.	peg count

OAM Example Output:

```
eagle10706 07-01-01 10:30:09 EST EAGLE5 35.6.0
TYPE OF REPORT: STP SYSTEM TOTAL MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL: 07-01-01 10:00:00 THRU 10:29:59

STP-SYSTOT MEASUREMENTS

ORIGMSUS = 425, TRMDMSUS = 420, THRSWMSU = 730980,
ORMSUOCT = 8490, TRMSUOCT = 8400, TSMSUOCT = 14619600,
DURINTFL = 0, DTAMSULOST = 0, MSINVDPC = 5,
MSINVSIO = 0, OMSINVDPC = 0, MSINVLNK = 0,
MSINVSIF = 0, MSNACDPC = 5, MSINVSLC = 0,
GTTPERFD = 0, GTTUNONS = 0, GTTUNLNT = 0,
MSSCCPFL = 0, MSULOST1 = 0, MSULOST2 = 0,
MSULOST3 = 0, MSULOST4 = 0, MSULOST5 = 0,
CRSYSAL = 1, MASYSAL = 2, MISYSAL = 9,
XLXTSPACE = 0, XLXTELEI = 0, MSUDSCRD = 0,
OVSZMSG = 0, GFGTMATCH = 0, GFGTNOMCH = 0,
GFGTNOLKUP = 0, MSUSCCPFLR = 0, NMSCCPMH = 4567,
PKSCCPMH = 38495, MSSCCPDISC = 23, IDPRMSERR = 2,
IDPRMSFAIL = 12, IDPRMSRCV = 8374, IDPRMSSUCC = 8360,
MSIDPNOMCH = 0, MSIDPMATCH = 0, SCCPLOOP = 3,
MSULOST6 = 0

;

eagle10706 07-01-01 10:30:10 EST EAGLE5 35.6.0
END OF HALF-HOURLY STP-SYSTOT MEASUREMENT REPORT

;
```

MP Example Output File Name: *systot-stp_19990117_1530.csv*

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "35.6.0-56.34.0", "2007-01-01", "15:51:37", "EST",
"STP SYSTEM TOTAL MEASUREMENTS ON
STP", "LAST", "2007-01-01", "15:00:00", "15:30:00", 1<cr><lf>
<cr><lf>
"STATUS", "ORIGMSUS", "TRMDMSUS", "THRSWMSU", "ORMSUOCT", "TRMSUOCT", "TSMUOCT", "DURI
NTFL",
"DTAMSULOST", "MSINVDPC", "MSINVSIO", "OMSINVDPC", "MSINVLNK", "MSINVSIF", "MSNACDPC",
"MSINVSLC",
"GTTPERFD", "GTTUNONS", "GTTUN1NT", "MSSCCPFL", "MSULOST1", "MSULOST2",
"MSULOST3", "MSULOST4", "MSULOST5", "CRSYSAL", "MASYSAL", "MISYSAL", "XLXTSPACE", "XLXT
ELEI", "MSUDSCRD",
"OVSZMSG", "GFGTMATCH", "GFGTNOMCH", "GFGTNOLKUP", "MSUSCCPFLR", "NMSCCPMH", "PKSCCPMH
",
"MSUSCCPDISC", "IDPRMSERR", "IDPRMSFAIL", "IDPRMSRCV", "IDPRMSSUCC", "MSIDPNOMCH", "MS
IDPMATCH", "SCCPLOOP", "MSULOST6"<cr><lf>
"K", 425, 420, 730980, 8490, 8400, 14619600, 0, 0, 5, 0, 0, 0, 0, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0,
0, 1, 2, 9, 0, 0, 0, 0, 9658, 82379, 39, 2, 12, 8374, 8360<cr><lf>
```

Assuming each data line will be:

$$46 * (\text{average 6 chars per field}) + 2 = 278 \text{ chars}$$

Example typical file size:

System Header	+	Report Header	+	Report Data	=	File Size
250	+	463	+	278	=	991 bytes

enttype=tt

Example Commands:

OAM: **rept-meas:type=systot:enttype=tt**

MP: **rept-ftp-meas:type=systot:enttype=tt**

Table 4-4. STP System Total Translation Type Measurements

Event Name	Description	Unit
AGTTPERFD	Advanced CdPA GTTs Performed - The total number of MSUs that successfully passed Advanced CdPA Global Title Translation (AGTT). This register appears in the SYSTOT-TT report ONLY.	peg count
GTTPERFD	GTTs Performed - The total number of MSUs that successfully completed global title translation (GTT). Also includes G-Port and INP MSUs that got a match in either the G-Port, INP or GTT DB.	peg count

Measurements

Table 4-4. STP System Total Translation Type Measurements (Continued)

Event Name	Description	Unit
GTTUN0NS	GTTs Unable to Perform - Diagnostic 0: No Translation for Address of Such Nature - Total number of times that the specified translation type in an MSU was not supported by the STP or the form of the GTT was incorrect for the given translation type. Also includes G-Port, INP and GTT MSUs that did not match on new selectors (GTL, NP, NAI) in addition to ones not matching on TT.	peg count
GTTUN1NT	GTTs Unable to Perform - Diagnostic 1: No Translation for This Address - Number of times that a match for the global title could not be found in the translation table. Also includes G-Port, INP MSUs that fell through to GTT, got a selector match, but still did not get a match on the GTA.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Example Output:

```
> rept-meas:type=systot:enttype=tt:tt=xxx

Command Accepted - Processing

eagle10706 05-08-11 14:29:40 EST Rel 34.0.0-0.0.0
rept-meas:type=systot:enttype=tt:tt=xxx
Command entered at terminal #5.
;

eagle10706 05-08-11 14:29:40 EST Rel 34.0.0-0.0.0
Measurements Report will be generated.
;

eagle10706 05-08-11 14:29:40 EST Rel 34.0.0-0.0.0
TYPE OF REPORT: STP SYSTEM TOTAL MEASUREMENTS ON TT
REPORT PERIOD: LAST
REPORT INTERVAL: 05-08-11, 13:30:00 THROUGH 13:59:59

TT-SYSTOT MEASUREMENTS

TT-SYSTOT MEASUREMENTS: xxx

These measurements are from 05-08-11, 13:30:00 through 13:59:59.
GTTPERFD = 0, GTTUN0NS = 0, GTTUN1NT = 0,
AGTTPERFD = 0

;

eagle10706 05-08-11 14:29:41 EST Rel 34.0.0-0.0.0
END OF ON-DEMAND TT-SYSTOT MEASUREMENT REPORT
;
```

MP Example Output File Name: *systot-tt_19990117_1530.csv*

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-55.1.0", "2005-01-17", "15:51:37", "EST",
"STP SYSTEM TOTAL MEASUREMENTS ON CDPA
TT", "LAST", "2005-01-17", "15:00:00", "15:30:00", 256<cr><lf>
<cr><lf>
"STATUS", "TT", "GTTPERFD", "GTTUN0NS", "GTTUN1NT", "AGTTPERFD"<cr><lf>
"K", xxx, 0, 0, 0, 0<cr><lf>

. . . . .

"K", yyy, 0, 0, 0, 0<cr><lf>
```

Assuming each data line will be:

$$4 \text{ char status} + 4 \text{ char TT} + 4*(6 \text{ char data}) + 2 = 34 \text{ chars}$$

For a report of 256 TTs, example typical file size:

System header	+	Report header	+	Report data	=	File Size
250		+ 60		+ 8704		= 9014 bytes

enttype=cgtt

Example Commands:

OAM: **rept-meas:type=systot:enttype=cgtt**

MP: **rept-ftp-meas:type=systot:enttype=cgtt**

Table 4-5. Calling Party GTT Measurements

Event Name	Description	Unit
CGTTPERFD	<p>CgPA GTTs Performed - The total number of MSUs that successfully passed CgPA global title translation (GTT)(CgPA GTA, CgPA PC, or OPC). This register is pegged only when the CgPA TT is present in the MSU. Since GTT can be done on the CgPA PC or on the OPC, the CgPA GTA is not a pre-requisite to perform GTT.</p> <p>This register appears in the SYSTOT-CGTT report ONLY, which is only generated if the Origin Based SCCP Routing feature is enabled and turned on.</p>	peg count
GTTUN0NS	<p>CgPA GTTs Unable to Perform - Diagnostic 0: CgPA selectors not found - The total number of times that the specified type of translation in an MSU was not supported by the STP. This register counts MSUs for which CgPA selectors were not found. This register appears in the SYSTOT-CGTT report ONLY, which is only generated if the Origin Based SCCP Routing feature is enabled and turned on.</p>	peg count

Measurements

Table 4-5. Calling Party GTT Measurements (Continued)

Event Name	Description	Unit
GTTUN1NT	<p>Origin Based GTTs Unable to Perform - Diagnostic 1: - The number of times that a match for the global title or point code could not be found in the translation table because:</p> <p>Translation not found in CgPA GTA GTTSET or in CgPA PC GTTSET or in OPC GTTSET.</p> <p>GTT on CgPA PC is required, but CgPA PC is not present in the MSU.</p> <p>Default CgPA PC set in SCCPOPTS table is required but is not provisioned.</p> <p>This register appears in the SYSTOT-CGTT report ONLY, which is only generated if the Origin Based SCCP Routing feature is enabled and turned on.</p>	peg count
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status

OAM Example Output:

```
eagle10706 05-08-11 14:29:42 EST Rel 35.0.0-0.0.0
TYPE OF REPORT: STP SYSTEM TOTAL MEASUREMENTS ON CGTT
REPORT PERIOD: LAST
REPORT INTERVAL: 05-08-11, 13:30:00 THROUGH 13:59:59

CGTT-SYSTOT MEASUREMENTS

CGTT-SYSTOT MEASUREMENTS: xxx

These measurements are from 05-08-11, 13:30:00 through 13:59:59.
CGTTPERFD = 0, CGTTUN0NS = 0, CGTTUN1NT = 0

;

eagle10706 05-08-11 14:29:42 EST Rel 34.0.0-0.0.0
END OF ON-DEMAND CGTT-SYSTOT MEASUREMENT REPORT
;
eagle10706 05-08-11 14:29:41 EST Rel 34.0.0-0.0.0
END OF ON-DEMAND TT-SYSTOT MEASUREMENT REPORT
;
```

MP Example Output File Name: *systot-cgtt_20050117_1530.csv*

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-55.1.0", "2005-01-17", "15:51:37", "EST",
"STP SYSTEM TOTAL MEASUREMENTS ON CGPA
TT", "LAST", "2005-01-17", "15:00:00", "15:30:00", 256<cr><lf>
<cr><lf>
"STATUS", "TT", "CGGTTPERFD", "CGGTTUN0NS", "CGGTTUN1NT"<cr><lf>
"K", xxx, 0, 0, 0<cr><lf>

. . . . .

"K", yyy, 0, 0, 0<cr><lf>
```

Assuming each data line will be:

$$4 \text{ char status} + 4 \text{ char TT} + 3*(6 \text{ char data}) + 2 = 28 \text{ chars}$$

For a report of 256 TTs, example typical file size:

System header	+	Report header	+	Report data	=	File Size
250	+	55	+	7168	=	7473 bytes

enttype=stplan

NOTE: The peg counts for STPLAN measurements have the possibility of rolling over during periods of high STPLAN message transmit and receive. On the measurement reports, these measurements show up as negative numbers. This indicates that STPLAN transmit-and-receive measurements have values greater than four gigabytes of data.

Example Commands:

OAM: `rept-meas:type=systot:enttype=stplan`

MP: `rept-ftp-meas:type=systot:enttype=stplan`

Table 4-6. STP System Total STPLAN Measurements

Event Name	Description	Unit
ENETALNERR	Ethernet Alignment Error - Number of packets not received over the STPLAN interface because of ethernet alignment errors.	peg count
ENETBUSBSY	Ethernet Bus Busy - Number of transmissions attempted when the STPLAN ethernet bus was busy.	peg count
ENETCOLERR	Ethernet Collision Error - Number of packets not transmitted by STPLAN because of excessive collisions on the STPLAN ethernet bus.	peg count
ENETCRCERR	Ethernet CRC Error - Number of packets not received on the STPLAN ethernet due to CRC errors.	peg count
ENETOCTRCV	Ethernet Octets Received - The total number of octets received on the STPLAN ethernet interface.	peg count

Measurements

Table 4-6. STP System Total STPLAN Measurements (Continued)

Event Name	Description	Unit
ENETOCTXMT	Ethernet Octets Transmitted - The total number of octets transmitted on the STPLAN ethernet interface.	peg count
ENETOVRERR	Ethernet Receive Buffer Overflow Errors - Number of packets not received by STPLAN because of a receive buffer overflow.	peg count
IPADDRERR	IP Address Error - The total number of inbound IP datagrams discarded on the STPLAN interface due to a bad destination address.	peg count
IPHDRERR	IP Header Errors - The total number of inbound IP datagrams discarded on the STPLAN interface due to header errors.	peg count
IPPROTERR	IP Protocol Error - Number of inbound IP datagrams discarded by STPLAN due to an error in the packet (invalid protocol).	peg count
SLANDISC1	STPLAN Discarded 1 - Number of indicated messages not copied to the host due to the STPLAN feature being disabled.	peg count
SLANDISC2	STPLAN Discarded 2 - Number of MSUs discarded due to the host being unreachable.	peg count
SLANDSBLD	STPLAN Disabled - The duration that the STPLAN screening/copy feature was disabled.	msecs
SLANSCRND	STPLAN Screened - Number of MSUs that were copied to the STPLAN interface after passing gateway screening.	peg count
SLANXMIT	STPLAN Transmit - Number of MSUs sent to the host destination.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
TCPCONNFLD	TCP Connections Failed - The total number of TCP connections that have failed on the STPLAN interface.	peg count
TCPRCVERR	TCP Receive Error - The total number of TCP segments received on the STPLAN interface in error.	peg count
TCPRSTSENT	TCP Reset Sent - The total number of TCP segments sent containing the reset (RST) flag on the STPLAN interface.	peg count
TCPSEGRCVD	TCP Segment Received - The total number of TCP segments received on the STPLAN interface.	peg count
TCPSEGSENT	TCP Segment Sent - The total number of TCP segments sent on the STPLAN interface.	peg count
TCPSEGXMT2	TCP Segment Retransmitted - The total number of TCP segments retransmitted on the STPLAN interface.	peg count

OAM Example Output:

```
tekelecstp 01-08-23 11:00:11 EST EAGLE 34.0.0
```


Measurements

Accessible Collection Periods: Last, Specific, Active (OAM)

enttype=lnkset

Certain registers are reported for HSLs or LSLs only. Other registers have different interpretations for HSLs than for LSLs. These registers are summarized in Table 4-7.

Table 4-7. HSL LSL Differences for Component Linksets

Event Name	LSL Usage	HSL Usage
MSURECVD	As described	Applies to MTP level 3 messages
MSUSRGTT	As described	Applies to MTP level 3 messages
MSUTRAN	MSUs transmitted and acknowledged by level 2	MTP level 3 messages offered to SAAL level for transmission
OCTRCGTT	As described	Applies to MTP level 3 message bytes
OCTRECVD	As described	Applies to MTP level 3 message bytes
OCTTRAN	Octets associated with MSUs transmitted and acknowledged by level 2	Bytes/octets associated with MTP level 3 messages offered to the SAAL level for transmission
SCCPLOOP	Not reported	As described
SDURECVD	Not reported	As described
SDUSTRAN	Not reported	As described
SDURETRN	Not reported	As described
ATMNDCRCV	Not reported	As described
ATMNDCTRN	Not reported	As described

Example Commands:

OAM: **rept-meas:type=comp:enttype=lnkset:lsn=xy212**

MP: **rept-ftp-meas:type=comp:enttype=lnkset**

Table 4-8. Component Linkset Measurements

Event Name	Description	Unit
ATMNDCRCV	Total incoming NDC - Valid ATM cells on the HSL's VCL, including UI and OAM cells but excluding idle/unassigned cells.	peg count
ATMNDCTRN	Total outgoing NDC - Valid ATM cells on the HSL's VCL, including UI and OAM cells but excluding idle/unassigned cells.	peg count

Table 4-8. Component Linkset Measurements (Continued)

Event Name	Description	Unit
MSGWSDSLIM	MSUs lost due to Gateway Screening being Disabled on a LIM - These MSUs were discarded because the gateway screening function was disabled. Gateway screening may have been disabled due to "load shedding" indicating high traffic volume in the system, or because the screenset was unavailable. This condition can also occur if the screenset data is invalid or <i>gateway screening disabled</i> is on.	peg count
MSURECVD	MSUs Received -Total number of MSUs received, including those for which retransmission has been requested.	peg count
MSUSRGTT	MSUs Received Requiring GTT -Total number of incoming MSUs requiring global title translation (GTT).	peg count
MSUTRAN	MSUs Transmitted -Total number of MSUs transmitted to the far-end, including retransmissions.	peg count
OCTRCGTT	MSU Octets Received for MSUs Requiring GTT - Total number of octets received associated with incoming MSUs requiring global title translation (GTT), including octets removed in MTP level 2 processing.	octets
OCTRECVD	MSU Octets Received - Total number of octets associated with MSUs received, including those removed for MTP level 2 processing and those for which retransmission has been requested.	octets
OCTTRAN	MSU Octets Transmitted - Total number of octets associated with MSUs transmitted to the far-end, including those added in MTP level 2 processing and retransmissions.	octets
SCCPLOOP	The total number of times that a GTT translation matched a Point Code in the STP's loopset entries resulting in either a notify or discard of an SCCP message.	peg count
SDURECVD	SSCOP SD PDUs Received - The number of SSCOP sequenced data (SD) PDUs that were received during the indicated interval.	peg count
SDURETRN	SSCOP SD PDUs Retransmitted - The number of SSCOP SD PDUs that were retransmitted, based on an accumulated count of such retransmissions conveyed to layer management.	peg count
SDUSTRAN	SSCOP SD PDUs Transmitted - The number of SSCOP SD PDUs that were transmitted, including retransmissions.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval N – indicates data not current	status
TDLSINAC	Total Duration of Link Set Inactivity - The total time that all links in the linkset were unavailable to MTP level 3, regardless if they were made unavailable manually or automatically.	seconds
ZTTMAPI	Translation Type Mapping Translation Performed - MSUs Received on the Gateway Linkset - The total number of Translation Type Mapping translations performed for incoming Message Signal Units (MSUs) received on the specified linkset.	peg count

Measurements

Table 4-8. Component Linkset Measurements (Continued)

Event Name	Description	Unit
ZTTMAPO	Translation Type Mapping Translation Performed - MSUs Transmitted on the Gateway Linkset - The total number of translations performed on outgoing Message Signal Units (MSUs) for the specified linkset.	peg count
MTPMSCNVTD	Total MTP Routed SCCP MSUs Converted.	peg count
GTTMSCNVTD	Total GT Routed SCCP MSUs Converted	peg count

OAM Example Output:

```
eagle10706 07-01-01 10:30:11 EST EAGLE5 35.6.0
TYPE OF REPORT: COMPONENT MEASUREMENTS ON LNKSET
REPORT PERIOD: LAST
REPORT INTERVAL: 07-01-01 10:00:00 THRU 10:29:59
```

```
LNKSET-COMP MEASUREMENTS: lsn1 (SAAL)
```

```
MSUTRAN = 120755, MSURECVD = 147190, OCTTRAN = 2415100,
OCTRECVD = 2943800, MSUSRGTT = 0, OCTRCGTT = 0,
TDLSINAC = 0, MSGWSDSLIM = 0, ZTTMAPO = 0,
ZTTMAPI = 0, ATMNDCTRN = 0, ATMNDCRCV = 0,
SDUSTRAN = 0, SDURECVD = 0, SDURETRN = 0,
MTPMSCNVTD = 0, GTTMSCNVTD = 0, SCCPLOOP = 2
```

;

```
eagle10706 07-01-01 10:30:12 EST EAGLE5 35.6.0
LNKSET-COMP MEASUREMENTS: lsn2
```

```
MSUTRAN = 120740, MSURECVD = 147196, OCTTRAN = 2414790,
OCTRECVD = 2943920, MSUSRGTT = 0, OCTRCGTT = 0,
TDLSINAC = 0, MSGWSDSLIM = 0, ZTTMAPO = 0,
ZTTMAPI = 0, MTPMSCNVTD = 0, GTTMSCNVTD = 0,
SCCPLOOP = 0
```

;

```
eagle10706 07-01-01 10:30:13 EST EAGLE5 35.6.0
LNKSET-COMP MEASUREMENTS: lsn3
```

```
MSUTRAN = 144895, MSURECVD = 147190, OCTTRAN = 2897900,
OCTRECVD = 2943800, MSUSRGTT = 0, OCTRCGTT = 0,
TDLSINAC = 0, MSGWSDSLIM = 0, ZTTMAPO = 0,
ZTTMAPI = 0, MTPMSCNVTD = 0, GTTMSCNVTD = 0,
SCCPLOOP = 0
```

;

```
eagle10706 07-01-01 10:30:14 EST EAGLE5 35.6.0
LNKSET-COMP MEASUREMENTS: lsn4 (SAAL)
```

```
MSUTRAN = 0, MSURECVD = 0, OCTTRAN = 0,
OCTRECVD = 0, MSUSRGTT = 0, OCTRCGTT = 0,
TDLSINAC = 0, MSGWSDSLIM = 0, ZTTMAPO = 0,
ZTTMAPI = 0, ATMNDCTRN = 0, ATMNDCRCV = 0,
SDUSTRAN = 0, SDURECVD = 0, SDURETRN = 0,
```

```

MTPMSCNVTD =          0, GTTMSCNVTD =          0, SCCPLOOP =          1
;

eagle10706 07-01-01 10:30:14 EST EAGLE 35.6.0
END OF HALF-HOURLY LNKSET-COMP MEASUREMENT REPORT
;

```

MP Example Output File Name: comp-lnkset_20070101_1530.csv

```

"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "35.6.0-56.34.0", "2007-01-01", "15:51:37", "EST",
"COMPONENT MEASUREMENTS ON
LNKSET", "LAST", "2007-01-01", "15:00:00", "15:30:00", 100 <cr><lf>
<cr><lf>
"STATUS", "LSN", "LNKTYPE", "MSUTRAN", "MSURECVD", "OCTTRAN", "OCTRECVD", "MSUSRGTT",
"OCTRCGTT", "TDLSINAC", "MSGWSDSLIM", "ZTTMAPO", "ZTTMAPI", "ATMNDCTR", "ATMNDCRCV",
"SDUSTRAN", "SDURECVD", "SDURETRN", "MTPMSCNVTD", "GTTMSCNVTD", "SCCPLOOP" <cr><lf>
"K", "lsn001", "SAAL", 120755, 147190, 2415100, 2943800, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2 <cr>
<lf>
"K", "lsn002", "MTP2", 120740, 147196, 2414790, 2943920, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 <cr><lf>
"K", "lsn003", "MTP2", 144895, 147190, 2897900, 2943800, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 <cr><lf>
"K", "lsn004", "SAAL", 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1 <cr><lf>
. . . . .

"K", "lsnxxx", "MTP2", 144895, 147190, 2897900, 2943800, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 <cr><lf>

```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LKNTYPE + 18*(6 char data) + 2 = 129 chars

For a report of 500 linksets, typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		220		64500		= 64970 bytes

enttype=link

Certain registers are reported for HSLs or LSLs only. Other registers have different interpretations for HSLs than for LSLs. These registers are summarized in Table 4-9.

Table 4-9. HSL LSL Differences for Component Links

Event Name	LSL Usage	HSL Usage
MSUDISC0	As described	Applies to MTP level 3 messages
MSUDISC1	As described	Applies to MTP level 3 messages
MSUDISC2	As described	Applies to MTP level 3 messages
MSUDISC3	As described	Applies to MTP level 3 messages
MSURECVD	As described	Applies to MTP level 3 messages

Measurements

Table 4-9. HSL LSL Differences for Component Links (Continued)

Event Name	LSL Usage	HSL Usage
MSURETRN	MSUs retransmitted by level 2	not reported for HSLs, see SDURETRN
MSUSRGTT	As described	Applies to MTP level 3 messages
MSUTRAN	MSUs transmitted and acknowledged by level 2	MTP level 3 messages offered to SAAL level for transmission
OCTRCGTT	As described	Applies to MTP level 3 message bytes
OCTRECVD	As described	Applies to MTP level 3 message bytes
OCTTRAN	Octets associated with MSUs transmitted and acknowledged by level 2	Bytes/octets associated with MTP level 3 messages offered to the SAAL level for transmission
SDURECVD	Not reported	As described
SDUSTRAN	Not reported	As described
SDURETRN	Not reported	As described
ATMNDCRCV	Not reported	As described
ATMNDCTRN	Not reported	As described

OAM: `rept-meas:type=comp:enttype=link:loc=xxxx:link=x`

MP: `rept-ftp-meas:type=comp:enttype=link`

Table 4-10. Component Link Measurements

Event Name	Description	Unit
ATMNDCRCV	Total incoming NDC - Valid ATM cells on the HSL's VCL, including UI and OAM cells but excluding idle/unassigned cells.	peg count
ATMNDCTRN	Total outgoing NDC - Valid ATM cells on the HSL's VCL, including UI and OAM cells but excluding idle/unassigned cells.	peg count
DURLKOTG	Duration of Link Outage - The total time a link was unavailable to MTP level 3 for any reason.	seconds
ECCNGLV1	Event Count for Entering Level 1 Link Congestion - The total number of times that link congestion level 1 was entered.	peg count
ECCNGLV2	Event Count for Entering Level 2 Link Congestion - The total number of times that link congestion level 2 was entered.	peg count
ECCNGLV3	Event Count for Entering Level 3 Link Congestion - The total number of times that link congestion level 3 was entered.	peg count
LNKAVALT	Link Available Time - The total time the link was available to MTP level 3.	seconds

Table 4-10. Component Link Measurements (Continued)

Event Name	Description	Unit
MSUDISC0	Priority 0 MSUs Discarded Due to Congestion - The total number of priority 0 MSUs discarded due to congestion (any level).	peg count
MSUDISC1	Priority 1 MSUs Discarded Due to Congestion - The total number of priority 1 MSUs discarded due to congestion (any level).	peg count
MSUDISC2	Priority 2 MSUs Discarded Due to Congestion - The total number of priority 2 MSUs discarded due to congestion (any level).	peg count
MSUDISC3	Priority 3 MSUs Discarded Due to Congestion - The total number of priority 3 MSUs discarded due to congestion (any level).	peg count
MSURECVD	MSUs Received - Total number of MSUs received, including those for which retransmission has been requested.	peg count
MSURETRN	MSUs Retransmitted - Number of MSUs retransmitted from the STP on this link.	peg count
MSUSRGTT	MSUs Received Requiring GTT - Total number of incoming MSUs requiring global title translation (GTT).	peg count
MSUTRAN	MSUs Transmitted - Total number of MSUs transmitted to the far-end, including retransmissions.	peg count
MTCEUSG	Link Maintenance Usage - The total time the link was manually made unavailable to MTP level 3.	seconds
NMGWSDSABL	Number of Times GWS Disabled -Number of times that gateway screening was disabled because of a processor overload.	peg count
OCTRCGTT	MSU Octets Received for MSUs Requiring GTT - Total number of octets received associated with incoming MSUs requiring global title translation (GTT), including octets removed in MTP level 2 processing.	octets
OCTRECVD	MSU Octets Received - Total number of octets associated with MSUs received, including those removed for MTP level 2 processing and those for which retransmission has been requested.	octets
OCTRETRN	MSU Octets Retransmitted - The total number of MSU octets retransmitted. This register is NOT reported for HSLs.	octets
OCTTRAN	MSU Octets Transmitted - Total number of octets associated with MSUs transmitted to the far-end, including those added in MTP level 2 processing and retransmissions.	octets
SDURECVD	SSCOP SD PDUs Received - The number of SSCOP sequenced data (SD) PDUs that were received during the indicated interval.	peg count

Measurements

Table 4-10. Component Link Measurements (Continued)

Event Name	Description	Unit
SDURETRN	SSCOP SD PDUs Retransmitted - The number of SSCOP SD PDUs that were retransmitted, based on an accumulated count of such retransmissions conveyed to layer management.	peg count
SDUSTRAN	SSCOP SD PDUs Transmitted - The number of SSCOP SD PDUs that were transmitted, including retransmissions.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval N – indicates data not current	status
TDCNGLV1	Total Duration of Level 1 Link Congestion - The total time the link was in level 1 congestion.	seconds
TDCNGLV2	Total Duration of Level 2 Link Congestion - The total time the link was in level 2 congestion.	seconds
TDCNGLV3	Total Duration of Level 3 Link Congestion - The total time the link was in level 3 congestion.	seconds

OAM Example Output:

```
stdcfg2b 04-03-28 01:00:05 EST EAGLE 34.0.0-53.26.0
TYPE OF REPORT: COMPONENT MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 04-03-28 00:30:00 THRU 00:59:59
```

```
LINK-COMP MEASUREMENTS: LOC: 1201, PORT: A , LSN: e2m1s1
```

These measurements are from 04-03-28, 00:30:00 through 00:59:59.

```
MSUTRAN      =      20, MSURECVD    =      20, MSURETRN    =      0,
OCTRETRN    =      0, OCTTRAN     =     400, OCTRECVD     =     400,
MTCEUSG     =      0, DURLKOTG   =      0, MSUSRGTT    =      0,
OCTRCGTT    =      0, TDCNGLV1   =      0, TDCNGLV2    =      0,
TDCNGLV3    =      0, ECCNGLV1   =      0, ECCNGLV2    =      0,
ECCNGLV3    =      0, MSUDISC0    =      0, MSUDISC1    =      0,
MSUDISC2    =      0, MSUDISC3    =      0, LNKAVAIL     =     183,
NMGWSDSABL  =      0
```

;

```
stdcfg2b 04-03-28 01:00:05 EST EAGLE 34.0.0-53.26.0
```

```
LINK-COMP MEASUREMENTS: LOC: 1201, PORT: B , LSN: e2m1s2
```

These measurements are from 04-03-28, 00:30:00 through 00:59:59.

```
MSUTRAN      =      20, MSURECVD    =      20, MSURETRN    =      0,
OCTRETRN    =      0, OCTTRAN     =     400, OCTRECVD     =     400,
MTCEUSG     =      0, DURLKOTG   =      0, MSUSRGTT    =      0,
OCTRCGTT    =      0, TDCNGLV1   =      0, TDCNGLV2    =      0,
TDCNGLV3    =      0, ECCNGLV1   =      0, ECCNGLV2    =      0,
ECCNGLV3    =      0, MSUDISC0    =      0, MSUDISC1    =      0,
MSUDISC2    =      0, MSUDISC3    =      0, LNKAVAIL     =     183,
```


Measurements

For a report of 500 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	339	+	97000	=	97589 bytes

Network Management Measurements

Network Management Reports provide measurement data on STP traffic, Global Title Translations, and MTP Network Management.

Entity Types: : STP, Lnkset, and Link

Accumulation Interval: : 5 minutes

STP Retention Period: : 5 minutes

Reporting Mode: : Scheduled, On-demand, SEAS autonomous

Accessible Collection Period: : Last (STP, Lnkset, and Link), Active [OAM (Lnkset and Link)]

enttype=stp

Example Commands:

OAM: **rept-meas:type=nm:enttype=stp**

MP: **rept-ftp-meas:type=nm:enttype=stp**

Table 4-11. Network Management STP Measurements

Event Name	Description	Unit
GTTPERFD	GTTs Performed -The total number of MSUs that successfully completed global title translation (GTT).	peg count
GTTUN0NS	GTTs Unable to Perform - Diagnostic 0: No Translation for Address of Such Nature – Total number of times that the specified translation type in an MSU was not supported by the STP or the form of the GTT was incorrect for the given translation type.	peg count
GTTUN1NT	GTTs Unable to Perform - Diagnostic 1: No Translation for This Address – Number of times that a match for the global title could not be found in the translation table.	peg count
MSINVSIF	MSUs Discarded – Invalid SIF - Number of MSUs that have been received and discarded because of an invalid SIF.	peg count
MSINVDPC	MSUs Rcvd – Invalid DPC - Number of MSUs received and discarded because the DPC could not be found in the STP routing table.	peg count
MSINVLNK	MSUs Discarded – Invalid Link - Number of MSUs discarded because of an incorrect SLC. (The SLC refers to a nonexistent link or the same link.)	peg count

Table 4-11. Network Management STP Measurements (Continued)

Event Name	Description	Unit
MSINVSIO	MSUs Rcvd – Invalid Service Indicator Octet (SIO) - Number of MSUs received and discarded because the service requested in the service indicator octet (SIO) was not supported by the STP.	peg count
MSINVSLC	MSUs Discarded – Invalid SLC - Number of MSUs discarded because of an invalid SLC code in the ECO/COO.	peg count
MSNACDPC	MSUs Discarded – Inaccessible DPC - The total number of MSUs discarded because of an inaccessible DPC.	peg count
MSSCCPFL	MSUs Discarded – Routing Failure - Number of MSUs discarded due to a routing failure.	peg count
MSUDSCRD	MSUs Discarded – Gateway Screening - The total number of MSUs that failed gateway screening and have been discarded.	peg count
MSULOST1	MSUs Discarded – Level 2/Level 3 Queue Full - Number of MSUs discarded because the level 2 to level 3 queue was full.	peg count
MSULOST2	MSUs Discarded – Route On Hold Buffer Overflow - Number of MSUs discarded because the routing buffer was in overflow.	peg count
MSULOST3	MSUs Discarded – LS On Hold Buffer Overflow - Number of MSUs discarded because the linkset-on-hold buffer was in overflow.	peg count
MSULOST4	MSUs Discarded – Rcv Queue Full - Number of MSUs discarded because the receive queue was full.	peg count
NMTSKDSC0	Network Management Task Discard from Processor Overload - The total number of network management tasks (messages) discarded because of a processor overload (task priority = 0).	peg count
NMTSKDSC1	Network Management Task Discard from Processor Overload - The total number of network management tasks (messages) discarded because of a processor overload (task priority = 1).	peg count
NMTSKDSC2	Network Management Task Discard from Processor Overload - The total number of network management tasks (messages) discarded because of a processor overload (task priority = 2).	peg count
NMTSKDSC3	Network Management Task Discard from Processor Overload - The total number of network management tasks (messages) discarded because of a processor overload (task priority = 3).	peg count
OMSINVDPC	MSUs Originated – Invalid DPC - Number of MSUs originated with an invalid DPC.	peg count
ORIGMSUS	Originated MSUs - The total number of outgoing MSUs successfully passed to MTP level 2 for transmission, while carrying the STP point code in the OPC field.	peg count

Measurements

Table 4-11. Network Management STP Measurements (Continued)

Event Name	Description	Unit
ORMSUOCT	Originate MSU Octets - The total number of outgoing octets associated with MSUs carrying the STP point code in the OPC field. This includes octets added in MTP level 2 processing.	octets
OVSZMSG	Oversized MTP 3 Messages - Oversized MTP 3 messages exceeding 272 octets (level 3) that are received by an HSL and are discarded.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
THRSWMSU	Through-Switched MSUs - The total number of MSUs that did not carry the STP point code in the OPC or the DPC, and were successfully passed to MTP level 2 for transmission.	peg count
TRMDMSUS	Terminated MSUs - The total number of incoming MSUs carrying the STP point code in the DPC.	peg count
TRMSUOCT	Terminated MSU Octets - The total number of octets associated with incoming MSUs carrying the STP point code in the DPC. Includes octets removed in MTP level 2 processing.	octets
TSMSUOCT	Through-Switched MSU Octets - The total number of octets associated with MSUs that did not carry the STP point code in the OPC or the DPC, and were successfully passed to MTP level 2 for transmission	octets

OAM Example Output:

```
eagle10506 03-04-15 17:13:02 EST EAGLE 34.0.0
TYPE OF REPORT: NETWORK MANAGEMENT MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 17:05:00 THROUGH 17:09:59
```

STP-NM MEASUREMENTS

These measurements are from 03-04-15, 17:05:00 through 17:09:59.

```
ORIGMSUS = 80, TRMDMSUS = 80, THRSWMSU = 0,
ORMSUOCT = 1540, TRMSUOCT = 1540, TSMSUOCT = 0,
MSINVDPC = 0, MSINVSIO = 0, OMSINVDPC = 0,
MSINVLNK = 0, GTTPERFD = 0, GTTUNONS = 0,
GTTUN1NT = 0, MSSCCPFL = 0, MSINVSIF = 0,
MSNACDPC = 0, MSINVSLC = 0, MSUDSCRD = 0,
MSULOST1 = 0, MSULOST2 = 0, MSULOST3 = 0,
MSULOST4 = 0, NMTSKDSC0 = 0, NMTSKDSC1 = 0,
NMTSKDSC2 = 0, NMTSKDSC3 = 0, OVSZMSG = 0
```

;

```
eagle10506 03-04-15 17:13:03 EST EAGLE 34.0.0
```


Measurements

Table 4-13. Network Management Link Measurements

Event Name	Description	Unit
DRFEPRO	Duration of Far-End Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the far-end network element (SIFO received).	seconds
DRBSYLNK	Cumulative Duration of Busy Link Status- The total elapsed time between the receipt of a busy LSSU, and when the next message was acknowledged. This is the sum of all occurrences of busy link status.	seconds
DRLCLPRO	Duration of Local Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the near-end network element. For HSLs, this is initiated by MAAL-REPORT_LOCAL_PROCESSOR_OUTAGE	seconds
DRLNKUNV	Duration of Links Unavailable - The total time a link was unavailable to MTP level 3 for any reason.	seconds
ECCNGLV1	Event Count for Entering Level 1 Link Congestion - The total number of times that link congestion level 1 was entered.	peg count
ECCNGLV2	Event Count for Entering Level 2 Link Congestion - The total number of times that link congestion level 2 was entered.	peg count
ECCNGLV3	Event Count for Entering Level 3 Link Congestion - The total number of times that link congestion level 3 was entered.	peg count
MSUDISC0	Priority 0 MSUs Discarded Due to Congestion - The total number of priority 0 MSUs discarded due to congestion (any level).	peg count
MSUDISC1	Priority 1 MSUs Discarded Due to Congestion - The total number of priority 1 MSUs discarded due to congestion (any level).	peg count
MSUDISC2	Priority 2 MSUs Discarded Due to Congestion - The total number of priority 2 MSUs discarded due to congestion (any level).	peg count
MSUDISC3	Priority 3 MSUs Discarded Due to Congestion - The total number of priority 3 MSUs discarded due to congestion (any level).	peg count
NMGWSDSABL	Number of Times GWS Disabled - Number of times that gateway screening was disabled because of a processor overload.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
TDCNGLV1	Total Duration of Level 1 Link Congestion - The total time the link was in level 1 congestion.	seconds

Table 4-13. Network Management Link Measurements (Continued)

Event Name	Description	Unit
TDCNGLV2	Total Duration of Level 2 Link Congestion - The total time the link was in level 2 congestion.	seconds
TDCNGLV3	Total Duration of Level 3 Link Congestion - The total time the link was in level 3 congestion.	seconds

OAM Example Output:

```

eagle10506 03-04-15 14:15:17 EST EAGLE 34.0.0
TYPE OF REPORT: NETWORK MANAGEMENT MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 14:10:00 THROUGH 14:14:59

LINK-NM MEASUREMENTS: LOC: 1201, LINK: A , LSN: lsn123

These measurements are from 03-04-15, 14:10:00 through 14:14:59.
DRLNKUNV = 0, TDCNGLV1 = 0, TDCNGLV2 = 0,
TDCNGLV3 = 0, ECCNGLV1 = 0, ECCNGLV2 = 0,
ECCNGLV3 = 0, MSUDISC0 = 0, MSUDISC1 = 0,
MSUDISC2 = 0, MSUDISC3 = 0, DRFEPRO = 0,
DRBSYLNK = 0, NMGWSDSABL = 0, DRLCLPRO = 0

;

eagle10506 03-04-15 14:15:18 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-NM MEASUREMENT REPORT

;

eagle10506 03-04-15 14:15:26 EST EAGLE 34.0.0
TYPE OF REPORT: NETWORK MANAGEMENT MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 14:10:00 THROUGH 14:14:59

LINK-NM MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn123 (SAAL)

These measurements are from 03-04-15, 14:10:00 through 14:14:59.
DRLNKUNV = 0, TDCNGLV1 = 0, TDCNGLV2 = 0,
TDCNGLV3 = 0, ECCNGLV1 = 0, ECCNGLV2 = 0,
ECCNGLV3 = 0, MSUDISC0 = 0, MSUDISC1 = 0,
MSUDISC2 = 0, MSUDISC3 = 0, NMGWSDSABL = 0,
DRLCLPRO = 0

;

eagle10506 03-04-15 14:15:27 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-NM MEASUREMENT REPORT

;

```

MP Example Output File Name: nm-link_19990117_1550.csv

Table 4-14. Network Management Linkset Measurements (Continued)

Event Name	Description	Unit
MSURECVD	MSUs Received - The total number of MSUs received, including those for which retransmission has been requested.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Example Output:

```

tekelecstp 99-02-15 14:15:17 EST EAGLE 34.0.0
TYPE OF REPORT: NETWORK MANAGEMENT MEASUREMENTS ON LNKSET
REPORT PERIOD: LAST
REPORT INTERVAL: 99-02-15, 14:10:00 THROUGH 14:14:59

LNKSET-NM MEASUREMENTS: lsnxxx

These measurements are from 99-02-15, 14:10:00 through 14:14:59.
OCTTRAN = 0, OCTRECVD = 0, MSUTRAN = 0,
MSURECVD = 0
;
tekelecstp 99-02-15 14:15:18 EST EAGLE 34.0.0
END OF ON-DEMAND LNKSET-NM MEASUREMENT REPORT
;

```

MP Example Output File Name: nm-lnkset_19990117_1550.csv

MP Example Output File Format:

```

"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"NETWORK MANAGEMENT MEASUREMENTS ON
LINKSET", "LAST", "1999-01-17", "15:45:00", "15:50:00", 200<cr><lf>
<cr><lf>
"STATUS", "LSN", "LNKTYPE", "OCTTRAN", "OCTRECVD", "MSUTRAN", "MSURECVD"<cr><lf>
"K", "lsnxxx", "SAAL", 0, 0, 0, 0<cr><lf>
. . . . .
"K", "lsnxxx", "MTP2", 0, 0, 0, 0<cr><lf>

```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LNKTYPE + 4*(6 char data) + 2 = 45 chars

For a report of 200 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	69	+	9000	=	9319 bytes

Measurements

Daily Availability Measurements

Daily Availability (AVLD) Reports provide measurements pertaining to link management.

Entity Types: : Link

Accumulation Interval: : 24 hours

STP Retention Period: : 24 hours

Reporting Mode: : On-demand, scheduled (MP only)

Accessible Collection Period: : Last

enttype=link

Example Commands:

OAM: **rept-meas:type=avld:enttype=link:loc=xxxx:link=x:nzo=no**

MP: **rept-ftp-meas:type=avld:enttype=link**

Table 4-15. Daily Availability Link Measurements

Event Name	Description	Unit
DRDCLFLR	Cumulative Duration of Signaling Link Declared Failures All Types - The cumulative duration of all link failures.	seconds
DRFEPRO	Duration of Far-End Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the far-end network element (SIPO received).	seconds
DRLCLPRO	Duration of Local Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the near-end network element.	seconds
DRLKINHB	Duration of Signaling Link Mgmt Inhibit - The duration that a signaling link was unavailable because a signaling link was inhibited.	seconds
FARMGINH	Number of Far-End Management Inhibits - Number of times that a link was successfully inhibited from the far-end.	peg count
NEARMGIH	Number of Near-End Management Inhibits - Number of times a link was unavailable to MTP level 3 because it was locally inhibited.	peg count
NMDCLFLR	Number of Signaling Link Declared Failures All Types - The cumulative total of all link failures.	peg count

Table 4-15. Daily Availability Link Measurements (Continued)

Event Name	Description	Unit
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status
SURCVERR	<p>Number of Signal Units Received In Error - The number of signal units received with checksum errors, indicating transmission errors. For HSLs, this register reflects the number of SSCOP PDUs received with any errors.</p>	peg count

OAM Example Output:

```

eagle10506 03-04-15 13:10:34 EST EAGLE 34.0.0
TYPE OF REPORT: DAILY AVAILABILITY MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59

LINK-AVLD MEASUREMENTS: LOC: 1201, LINK: A , LSN: lsn123

These measurements are from 03-04-15, 00:00:00 through 12:59:59.
NEARMGIH = 0, FARMGINH = 0, NMDCLFLR = 0,
DRDCLFLR = 0, SURCVERR = 0, DRLKINHB = 0,
DRFEPRO = 0, DRLCLPRO = 0

;

eagle10506 03-04-15 13:10:35 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-AVLD MEASUREMENT REPORT

;

eagle10506 03-04-15 13:10:44 EST EAGLE 34.0.0
TYPE OF REPORT: DAILY AVAILABILITY MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59

LINK-AVLD MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn123 (SAAL)

These measurements are from 03-04-15, 00:00:00 through 12:59:59.
NEARMGIH = 0, FARMGINH = 0, NMDCLFLR = 0,
DRDCLFLR = 0, SURCVERR = 0, DRLKINHB = 0,
DRLCLPRO = 0

;

eagle10506 03-04-15 13:10:45 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-AVLD MEASUREMENT REPORT

;

```

MP Example Output File Name: avld-link_19990116_2400.csv

MP Example Output File Format:

"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",

Measurements

```
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAILY AVAILABILITY MEASUREMENTS ON
LINK", "LAST", "1999-01-16", "00:00:00", "24:00:00", 600 <cr><lf>
<cr><lf>
"STATUS", "LOC", "LINK", "LNKTYPE", "NEARMGIH", "FARMGINH", "NMDCLFLR", "DRDCLFLR",
"SURCVERR", "DRLKINHB", "DRFEPRO", "DRLCLPRO" <cr><lf>
"K", "1204", "A", "SAAL", 0,0,0,0,0,0,0,0 <cr><lf>

. . . . .

"K", "5204", "B3", "MTP2", 0,0,0,0,0,0,0,0 <cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LOC + 5 char LINK +
7 char LNKTYPE + 8*(6 char data) + 2 = 81 chars

For a report of 600 links, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	128	+	48600	=	48978 bytes

Day-To-Hour Availability Measurements

Day-To-Hour Availability (AVLDTH) Reports provide measurements pertaining to link management accumulating through the day.

Entity Types: : Link

Accumulation Interval: : Daily total to the last full hour

STP Retention Period: : 1 hour

Reporting Mode: : On-demand

Accessible Collection Period: : Last

enttype=link

Example Commands:

OAM: **rept-meas:type=avldth:enttype=link:loc=xxxx:link=x:nzo=no**

MP: **rept-ftp-meas:type=avldth:enttype=link**

Table 4-16. Day-To-Hour Availability Link Measurements

Event Name	Description	Unit
DRDCLFLR	Cumulative Duration of Signaling Link Declared Failures All Types - The cumulative duration of all link failures.	seconds
DRFEPRO	Duration of Far-End Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the far-end network element (SIPO received).	seconds
DRLCLPRO	Duration of Local Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the near-end network element.	seconds
DRLKINHB	Duration of Signaling Link Mgmt Inhibit - The duration that a signaling link was unavailable because a signaling link was inhibited.	seconds
FARMGINH	Number of Far-End Management Inhibits - Number of times that a link was successfully inhibited from the far-end.	peg count
NEARMGIH	Number of Near-End Management Inhibits - Number of times a link was unavailable to MTP level 3 because it was locally inhibited.	peg count
NMDCLFLR	Number of Signaling Link Declared Failures All Types - The cumulative total of all link failures.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
SURCVERR	Number of Signal Units Received In Error - The number of signal units received with checksum errors, indicating transmission errors. For HSLs, this register reflects the number of SSCOP PDUs received with any errors.	peg count

OAM Example Output:

```

eagle10506 03-04-15 13:10:34 EST EAGLE 34.0.0
TYPE OF REPORT: DAY-TO-HOUR AVAILABILITY MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59

LINK-AVLDTM MEASUREMENTS: LOC: 1201, LINK: A , LSN: lsn123

These measurements are from 03-04-15, 00:00:00 through 12:59:59.
NEARMGIH = 0, FARMGINH = 0, NMDCLFLR = 0,
DRDCLFLR = 0, SURCVERR = 0, DRLKINHB = 0,
DRFEPRO = 0, DRLCLPRO = 0

;

eagle10506 03-04-15 13:10:35 EST EAGLE 34.0.0
    
```

Measurements

```
END OF ON-DEMAND LINK-AVLDTM MEASUREMENT REPORT
;

eagle10506 03-04-15 13:10:44 EST EAGLE 34.0.0
TYPE OF REPORT: DAY-TO-HOUR AVAILABILITY MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59

LINK-AVLDTM MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn123 (SAAL)

These measurements are from 03-04-15, 00:00:00 through 12:59:59.
NEARMGIH = 0, FARMGINH = 0, NMDCLFLR = 0,
DRDCLFLR = 0, SURCVERR = 0, DRLKINHB = 0,
DRLCLPRO = 0

;

eagle10506 03-04-15 13:10:45 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-AVLDTM MEASUREMENT REPORT
;
```

MP Example Output File Name: avldth-link_19990117_1500.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAY-TO-HOUR AVAILABILITY MEASUREMENTS ON LINK", "LAST",
"1999-01-17", "00:00:00", "15:00:00", 600<cr><lf>
<cr><lf>
"STATUS", "LSN", "LOC", "LINK", "LNKTYPE", "NEARMGIH", "FARMGINH", "NMDCLFLR", "DRDCLFLR",
"SURCVERR", "DRLKINHB", "DRFEPRO", "DRLCLPRO"<cr><lf>
"K", "lsn234", "1201", "A", "SAAL", 0, 0, 0, 0, 0, 0, 0, 0<cr><lf>
. . . . .
"K", "lsn789", "5201", "B3", "MTP2", 0, 0, 0, 0, 0, 0, 0, 0<cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LOC + 5 char LINK +
7 char LNKTYPE + 8*(6 char data) + 2 = 81 chars

For a report of 600 links, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	128	+	48600	=	48978 bytes

Availability Measurements

Availability Measurements (AVL) provide measurements relating to the availability of signaling links.

Entity Types: : Link, STPLAN

Accumulation Interval: : 30 minutes

Optional MP Accumulation Interval: : Every 15 minutes

STP Retention Period: : 24 hours

Reporting Mode: : On-demand, scheduled (MP)

Accessible Collection Period: : Last, active (OAM), or specific

enttype=link

Certain registers are reported for HSLs or LSLs only. Other registers have different interpretations for HSLs than for LSLs. These registers are summarized in Table 4-17.

Table 4-17. HSL LSL Differences for Availability Links

Event Name	LSL Usage	HSL Usage
SUSRECVD	Level 2 signaling units (all types) received	SSCOP PDUs (all types) received
SUSTRAN	Level 2 signaling units (all types) transmitted	SSCOP PDUs (all types) transmitted
SURCVERR	Level 2 signaling units (all types) received with errors	SSCOP PDUs (all types) received with errors
NDCFLABN	As described	N/A - not reported
NDCLFALP	As described	N/A - not reported
NDCLFSYNC	No data received on the line	DS1: LOS, LOF, or LCD indications
NDCFLXDA	Level 2 timer t7 expired	Timer NO_RESPONSE expired for POLL/STAT response
NDCFLXDC	Level 2 timer t6 expired	Timer NO_CREDIT expired
PCRN1N2EXC	As described	N/A - not reported

Example Commands:

OAM: `rept-meas:type=avl:enttype=link:loc=xxxx:link=x`

MP: `rept-ftp-meas:type=avl:enttype=link`

Table 4-18. Availability Link Measurements

Event Name	Description	Unit
DRDCLFLR	Cumulative Duration of Signaling Link Declared Failures All Types - The cumulative duration of all link failures.	seconds
DRFEPRO	Duration of Far-End Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the far-end network element (SIPO received).	seconds

Measurements

Table 4-18. Availability Link Measurements (Continued)

Event Name	Description	Unit
DRLCLPRO	Duration of Local Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the near-end network element.	seconds
DRLKINHB	Duration of Signaling Link Mgmt Inhibit - The duration that a signaling link was unavailable because a signaling link was inhibited.	seconds
FARMGINH	Number of Far-End Management Inhibits - The total number of times that a link was inhibited by far-end management.	peg count
NDCLFLABN	Number of Signaling Link Failures – Abnormal FIB/BSN - Number of times the signaling link was taken out-of-service because of abnormal FIB/BSN received. A count was accumulated if two backward sequence number values in three consecutively received MSUs or FISUs are not the same as the previous one or any of the forward sequence numbers of the signal units in the retransmission buffer at the time they are retransmitted.	peg count
NDCLFALP	Link Failure – Alignment or Proving Failure - Number of times a signaling link was returned to out-of-service because of the excessive error rate detected by the alignment error rate monitor (AERM).	peg count
NDCLFINTR	Link Failure – Too Many Interrupts - Number of times the threshold for interrupts was exceeded. For instance, if there is excess noise on the line causing spurious interrupts, the STP recognizes that the threshold has been exceeded, and disables the link. This prevents the card from rebooting.	peg count
NDCLFSYNC	Link Failure - Loss of Synchronization - Number of times that the link was taken out-of-service because of a loss of synchronization.	peg count
NDCFLXDA	Number of Signaling Link Failures – Excessive Delay of Acknowledgment - Number of times a signaling link was out-of-service due to an excessive delay in acknowledgments.	peg count
NDCFLXDC	Number of Signaling Link Failures – Excessive Duration of Congestion - Number of times a signaling link was out-of-service because the timer T6 (remote congestion) expired.	peg count
NDCFLXER	Number of Signaling Link Failures – Excessive Error Rate - Number of times a signaling link was out-of-service because it reached the signal unit error rate monitor (SUERM) threshold.	peg count
NEARMGIH	Number of Near-End Management Inhibits - Number of times a link was unavailable to MTP level 3 because it was locally inhibited.	peg count
NMDCLFLR	Number of Signaling Link Declared Failures All Types - The cumulative total of all link failures.	peg count
NMFEPRO	Number of Far-End Processor Outages - The total number of far-end processor outages.	peg count

Table 4-18. Availability Link Measurements (Continued)

Event Name	Description	Unit
NMLCLPRO	Number of Local Processor Outages - The total number of local processor outages.	peg count
PCRN1N2EXC	PCR N1 or N2 Count Exceeded - The total number of forced retransmissions when preventive cyclic retransmission (PCR) is used as the error correction method on a link.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
SURCVERR	Number of SUs Received in Error - The total number of SUs received in which errors were detected.	peg count
SUSRECVD	Signaling Units Received - The total number of signaling units received.	peg count
SUSTRAN	Signaling Units Transmitted - The total number of signaling units transmitted.	peg count

OAM Example Output:

```

eagle10506 03-04-15 12:33:05 EST EAGLE 34.0.0
TYPE OF REPORT: AVAILABILITY MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 12:00:00 THROUGH 12:29:59

LINK-AVL MEASUREMENTS: LOC: 1201, LINK: A , LSN: lsn123

These measurements are from 03-04-15, 12:00:00 through 12:29:59.
NEARMGIH = 0, FARMGINH = 0, NMDCLFLR = 0,
DRDCLFLR = 0, SURCVERR = 0, DRLKINHB = 0,
NDCFLABN = 0, NDCLFSYNC = 0, NDCFLXDA = 0,
NDCFLXER = 0, NDCFLXDC = 0, NDCLFALP = 0,
NDCLFINTR = 0, NMFEPRO = 0, NMLCLPRO = 0,
DRFEPRO = 0, DRLCLPRO = 0, SUSRECVD = 3300944,
SUSTRAN = 3299200, PCRN1N2EXC = 0

;

eagle10506 03-04-15 12:33:06 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-AVL MEASUREMENT REPORT

;

eagle10506 03-04-15 12:33:16 EST EAGLE 34.0.0
TYPE OF REPORT: AVAILABILITY MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 12:00:00 THROUGH 12:29:59

LINK-AVL MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn123 (SAAL)

```

Measurements

These measurements are from 03-04-15, 12:00:00 through 12:29:59.
Measurement data represents an incomplete interval.

```
NEARMGIH   =          0, FARMGINH   =          0, NMDCLFLR   =          0,
DRDCLFLR   =          0, SURCVERR   =          0, DRLKINHB   =          0,
NDCLFSYNC  =          1, NDCFLXDA   =          0, NDCFLXER   =          0,
NDCFLXDC   =          0, NDCLFINTR  =          0, NMLCLPRO   =          0,
DRLCLPRO   =          0, SUSRECV   =          0, SUSTRAN    =         110
```

;

```
eagle10506 03-04-15 12:33:17 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-AVL MEASUREMENT REPORT
```

;

MP Example Output File Name: *avl-link_19990117_1530.csv*

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"AVAILABILITY MEASUREMENTS ON
LINK", "LAST", "1999-01-17", "15:00:00", "15:30:00", 600<cr><lf>
<cr><lf>
"STATUS", "LSN", "LOC", "LINK", "LNKTYPE", "NEARMGIH", "FARMGINH", "NMDCLFLR", "DRDCLFLR",
"SURCVERR", "DRLKINHB", "NDCFLABN", "NDCLFSYNC", "NDCFLXDA", "NDCFLXER", "NDCFLXDC",
"NDCLFALP", "NDCLFINTR", "NMFEPRO", "NMLCLPRO", "DRFEPRO", "DRLCLPRO", "SUSRECV",
"SUSTRAN", "PCRN1N2EXC"<cr><lf>
"K", "LS027A", "1201", "B2", "MTP2", 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,3300944,3299200,
0<cr><lf>

. . . . .

"K", "LS288B", "1204", "A", "SAAL", 0,0,0,0,0,0,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,110,<cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LOC + 5 char LINK +
7 char LNKTYPE + 20*(6 char data) + 2 = 153 chars

For a report of 600 links, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		272		91800		92322 bytes

enttype=stplan

This enttype consists of measurements for LIM, TSM, and ACM cards. The outputs are separate for the OAM based measurements and combined for the MP based measurements. The MP based measurements appear after the OAM measurements for the ACM cards. The Status Event appears with the ACM measurements.

NOTE: The peg counts for STPLAN measurements have the possibility of rolling over during periods of high STPLAN message transmit and receive. On the measurement reports these measurements show up as negative numbers. This indicates STPLAN transmit and receive measurements have values greater than four gigabytes of data.

Example Commands:

OAM: `rept-meas:type=avl:enttype=stplan`

MP: `rept-ftp-meas:type=avl:enttype=stplan`

Link Interface Module (LIM) measurements

Table 4-19. Availability STPLAN LIM Measurements

Event Name	Description	Unit
SLANDISC1	STPLAN Discarded 1 - Number of indicated messages not copied to the host due to the STPLAN feature being disabled.	peg count
SLANDSBLD	STPLAN Disabled - The duration that the STPLAN screening/copy feature was disabled.	msecs
SLANSCRND	STPLAN Screened - Number of MSUs that were copied to the STPLAN interface after passing gateway screening.	peg count

OAM LIM Example Output:

```
tekelecstp 03-02-06 11:02:07 WET EAGLE 34.0.0
TYPE OF REPORT: AVAILABILITY MEASUREMENTS ON STPLAN
REPORT PERIOD: LAST
REPORT INTERVAL: 03-02-06, 10:30:00 THROUGH 10:59:59

STPLAN-AVL MEASUREMENTS: LOC: 1201

These measurements are from 03-02-06, 10:30:00 through 10:59:59.
SLANDSBLD =          0, SLANDISC1 =          0, SLANSCRND =          0

;

tekelecstp 03-02-06 11:02:09 WET EAGLE 34.0.0
END OF ON-DEMAND STPLAN-AVL MEASUREMENT REPORT

;
```

Measurements

Transaction Service Module (TSM) measurements

Table 4-20. Availability STPLAN TSM Measurements

Event Name	Description	Unit
SLANDSBLD	STPLAN Disabled - The duration that the STPLAN screening/copy feature was disabled.	msecs
SLANSCRND	STPLAN Screened - Number of MSUs that were copied to the STPLAN interface after passing gateway screening.	peg count

OAM TSM Example Output:

```

tekelecstp 03-02-06 11:02:21 EST EAGLE 34.0.0
TYPE OF REPORT: AVAILABILITY MEASUREMENTS ON STPLAN
REPORT PERIOD: LAST
REPORT INTERVAL: 03-02-06, 10:30:00 THROUGH 10:59:59

STPLAN-AVL MEASUREMENTS: LOC: 1208

These measurements are from 03-02-06, 10:30:00 through 10:59:59.
SLANDSBLD =          0, SLANSCRND =          0

;

tekelecstp 03-02-06 11:02:22 EST EAGLE 34.0.0
END OF ON-DEMAND STPLAN-AVL MEASUREMENT REPORT
;

```

Application Communications Module (ACM) Measurements

Table 4-21. Availability STPLAN ACM Measurements

Event Name	Description	Unit
ENETALNERR	Ethernet Alignment Error - Number of packets not received over the STPLAN interface because of ethernet alignment errors.	peg count
ENETBUSBSY	Ethernet Bus Busy - Number of transmissions attempted when the STPLAN ethernet bus was busy.	peg count
ENETCOLERR	Ethernet Collision Error - Number of packets not transmitted by STPLAN because of excessive collisions on the STPLAN ethernet bus.	peg count
ENETCRCERR	Ethernet CRC Error - Number of packets not received on the STPLAN ethernet due to CRC errors.	peg count
ENETOCTRCV	Ethernet Octets Received - The total number of octets received on the STPLAN ethernet interface.	peg count
ENETOCTXMT	Ethernet Octets Transmitted - The total number of octets transmitted on the STPLAN ethernet interface.	peg count
ENETOVRERR	Ethernet Receive Buffer Overflow Errors - Number of packets not received by STPLAN because of a receive buffer overflow.	peg count

Table 4-21. Availability STPLAN ACM Measurements (Continued)

Event Name	Description	Unit
IPADDRERR	IP Address Error - The total number of inbound IP datagrams discarded on the STPLAN interface due to a bad destination address.	peg count
IPHDRERR	IP Header Errors - The total number of inbound IP datagrams discarded on the STPLAN interface due to header errors.	peg count
IPROTERR	IP Protocol Error - Number of inbound IP datagrams discarded by STPLAN due to an error in the packet (invalid protocol).	peg count
SLANDISC2	STPLAN Discarded 2 - Number of MSUs discarded due to the host being unreachable.	peg count
SLANXMIT	STPLAN Transmit - Number of MSUs sent to the host destination.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
TCPCONNFLD	TCP Connections Failed - The total number of TCP connections that have failed on the STPLAN interface.	peg count
TCPSEGRCVD	TCP Segment Received - The total number of TCP segments received on the STPLAN interface.	peg count
TCPSEGSENT	TCP Segment Sent - The total number of TCP segments sent on the STPLAN interface.	peg count
TCPSEGXMT2	TCP Segment Retransmitted - The total number of TCP segments retransmitted on the STPLAN interface.	peg count
TCPRCVERR	TCP Receive Error - The total number of TCP segments received on the STPLAN interface in error.	peg count
TCPRSTSENT	TCP Reset Sent - The total number of TCP segments sent containing the reset (RST) flag on the STPLAN interface.	peg count

OAM ACM Example Output:

```
tekelecstp 03-02-06 11:02:34 EST EAGLE 34.0.0
TYPE OF REPORT: AVAILABILITY MEASUREMENTS ON STPLAN
REPORT PERIOD: LAST
REPORT INTERVAL: 03-02-06, 10:30:00 THROUGH 10:59:59
```

```
STPLAN-AVL MEASUREMENTS: LOC: 1101
```

```
These measurements are from 03-02-06, 10:30:00 through 10:59:59.
```

```
SLANDISC2 = 0, SLANXMIT = 0, ENETALNERR = 0,
ENETCRCERR = 0, ENETCOLERR = 0, ENETBUSBSY = 0,
ENETOVRRERR = 0, ENETOCTXMT = 0, ENETOCTRCV = 124804,
TCPCONNFLD = 0, TCPSEGRCVD = 0, TCPSEGSENT = 0,
TCPSEGXMT2 = 0, TCPRCVERR = 0, TCPRSTSENT = 0,
IPHDRERR = 0, IPADDRERR = 0, IPPROTERR = 0
```

```
;
```


Table 4-22. Daily Maintenance STP Measurements

Event Name	Description	Unit
CRSYSAL	Critical System Alarms - The total number of critical system alarms.	peg count
DRDCLFLR	Cumulative Duration of Signaling Link Declared Failures All Types - The cumulative duration of all link failures.	seconds
DURLKOTG	Duration of Link Outage - The total time a link was unavailable to MTP level 3 for any reason.	seconds
DTAMSULOST	DTA MSUs Lost - The total number of MSUs that were discarded because the redirect function was turned off or the original MSU was too large to be encapsulated.	peg count
GFGTMATCH	G-Flex GTTs with Match - The total number of G-Flex Global Title Translation successfully completed.	peg count
GFGTNOMCH	G-Flex GTTs No Match - The total number of G-Flex Global Title Translations completed that did not match an entry in the GSM database.	peg count
GFGTNOLKUP	G-Flex GTTs No Look-up - The total number of G-Flex Global Title Translations that could not be looked up in the GSM database because of some error.	peg count
GTTPERFD	GTTs Performed - The total number of MSUs that successfully completed global title translation (GTT). Also includes G-Flex and INP MSUs that got a match in either the G-Flex, INP or GTT DB.	peg count
GTTUN0NS	GTTs Unable to Perform - Diagnostic 0: No Translation for Address of Such Nature - Total number of times that the specified translation type in an MSU was not supported by the STP or the form of the GTT was incorrect for the given translation type. Also includes G-Flex, INP and GTT MSUs that did not match on new selectors (GTI,INP,NAI) in addition to ones not matching on TT.	peg count
GTTUN1NT	GTTs Unable to Perform - Diagnostic 1: No Translation for This Address - The sum total of times that SCCP could not find a translation in the translation table. This includes Global Title translations, Point Code translations, and Subsystem translations. In general, this register contains the sum of the GTTUN1NT register in the systot-tt report and the CCGTTUN1NT	peg count
MSINVDPC	MSUs Rcvd - Invalid DPC - Number of MSUs received and discarded because the DPC could not be found in the STP routing table.	peg count
OMSINVDPC	MSUs Originated - Invalid DPC - Number of MSUs originated with an invalid DPC.	peg count
MSINVSIF	MSUs Discarded - Invalid SIF - Number of MSUs that have been received and discarded because of an invalid SIF.	peg count

Measurements

Table 4-22. Daily Maintenance STP Measurements (Continued)

Event Name	Description	Unit
MSINVSIO	MSUs Rcvd – Invalid Service Indicator Octet (SIO) - Number of MSUs received and discarded because the service requested in the service indicator octet (SIO) was not supported by the STP.	peg count
MASYSAL	Major system alarms - The total number of major system alarms.	peg count
MISYSAL	Minor system alarms - The total number of minor system alarms.	peg count
MSINVLNK	MSUs Discarded – Invalid Link - Number of MSUs discarded because of an incorrect SLC. (The SLC refers to a nonexistent link or the same link.)	peg count
MSINVSLC	MSUs Discarded – Invalid SLC - Number of MSUs discarded because of an invalid SLC code in the ECO/COO.	peg count
MSNACDPC	MSUs Discarded – Inaccessible DPC - The total number of MSUs discarded because of an inaccessible DPC.	peg count
MSSCCPFL	MSUs Discarded – Routing Failure - Number of MSUs discarded due to an SCCP routing failure. Also includes G-Flex, INP MSUs that got a match from either the G-Flex, INP or GTT DB but cannot be routed due to PC or SS congestion, PC or SS unavailable, SS unequipped, or an unqualified error.	peg count
MSUDSCRD	MSUs Discarded – Gateway Screening - The total number of MSUs that failed gateway screening and were discarded. See linkset report for individual peg counts.	peg count
MSULOST1	MSUs Discarded – Level 2/Level 3 Queue Full - Number of MSUs discarded because the level 2 to level 3 queue was full.	peg count
MSULOST2	MSUs Discarded – Route On Hold Buffer Overflow - Number of MSUs discarded because the routing buffer was in overflow.	peg count
MSULOST3	MSUs Discarded – LS On Hold Buffer Overflow - Number of MSUs discarded because the linkset-on-hold buffer was in overflow.	peg count
MSULOST4	MSUs Discarded – Rcv Queue Full - Number of MSUs discarded because the receive queue was full.	peg count
MSULOST5	MSUs Discarded – LIM Init - Number of MSUs discarded while the LIM card was initializing.	peg count
MSULOST6	MSUs Discarded - Number of MSUs discarded due to errors encountered during internal (IMT) transfer between cards.	peg count

Table 4-22. Daily Maintenance STP Measurements (Continued)

Event Name	Description	Unit
MTPRESTS	MTP Restarts Initiated - Number of times MTP restart was initiated by the STP. The count does not include the number of MTP restarts initiated as a result of messages from adjacent nodes.	peg count
ORIGMSUS	Originated MSUs - The total number of outgoing MSUs successfully passed to MTP level 2 for transmission, while carrying the STP point code in the OPC field.	peg count
OVSZMSG	Oversized MTP 3 Messages - Oversized MTP 3 messages exceeding 272 octets (level 3) that are received by an HSL and are discarded.	peg count
SCCPLOOP	The total number of times that a GTT translation matched a Point Code in the STP's loopset entries resulting in either a notify or discard of an SCCP message.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
THRSWMSU	Through-Switched MSUs - The total number of MSUs that did not carry the STP point code in the OPC or the DPC, and were successfully passed to MTP level 2 for transmission.	peg count
TRMDMSUS	Terminated MSUs - The total number of incoming MSUs carrying the STP point code in the DPC.	peg count
TTMAPPF	Translation Type Mapping Translations Performed - The total number of Translation Type Mapping translations performed (that is, a mapped SS7 message translation type was found for the existing SS7 message translation type).	peg count
XLXTELEI	X-List Entry Not Created - The total number of times that an X-List entry was not created because the ELEI for the cluster was set to 'yes'.	peg count
XLXTSPACE	X-List Entry Not Created - The total number of times an X-List entry was not created due to lack of space in the route/destination table.	peg count
MSUSCCPFLR	MSU SCCP Failure - Total MSUs Discarded Due to SCCP Conversion Failure.	peg count

OAM Example Output:

```
tekelecstp 07-01-02 15:51:37 EST EAGLE 35.6.0
  TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON STP
  REPORT PERIOD: LAST
  REPORT INTERVAL: 07-01-01, 00:00:00 THROUGH 23:59:59
```

STP-MTCD MEASUREMENTS

```
These measurements are from 07-01-01, 00:00:00 through 23:59:59.
ORIGMSUS   = 36102314, TRMDMSUS   =           0, THRSWMSU   = 6055635,
```

Measurements

```
MTPRESTS = 0, DTAMSULOST = 0, MSINVDPC = 1,
MSINVSIO = 0, OMSINVDPC = 0, MSINVLNK = 0,
MSINVSIF = 0, MSNACDPC = 1, MSINVSLC = 0,
GTTPERFD = 0, GTTUNONS = 0, GTTUNINT = 0,
MSSCCPFL = 0, MSUDSCRD = 0, MSULOST1 = 0,
MSULOST2 = 0, MSULOST3 = 0, MSULOST4 = 0,
MSULOST5 = 0, DRDCLFLR = 86400, DURLKOTG = 86400,
CRSYSAL = 288, MASYSAL = 600, MISYSAL = 960,
XLXTSPACE = 0, XLXTELEI = 0, TTMAPPF = 0,
OVZMSG = 0, GFGTMATCH = 0, GFGTNOMCH = 0,
GFGTNOLKUP = 0, MSUSCCPFLR = 0, SCCPLOOP = 3,
MSULOST6 = 0
```

```
;
tekelecstp 07-01-02 15:51:39 EST EAGLE 35.6.0
END OF ON-DEMAND STP-MTCD MEASUREMENT REPORT
;
```

MP Example Output File Name: mtcd-stp_20070101_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "35.6.0-56.34.0", "2007-01-02", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON
STP", "LAST", "2007-01-01", "00:00:00", "24:00:00", 1 <cr><lf>
<cr><lf>
"STATUS", "ORIGMSUS", "TRMDMSUS", "THRSWMSU", "MTPRESTS", "DTAMSULOST", "MSINVDPC",
"MSINVSIO", "OMSINVDPC", "MSINVLNK", "MSINVSIF", "MSNACDPC", "MSINVSLC", "GTTPERFD",
"GTTUNONS", "GTTUNINT", "MSSCCPFL", "MSULOST1", "MSULOST2", "MSULOST3", "MSULOST4",
"MSULOST5", "DRDCLFLR", "DURLKOTG", "CRSYSAL", "MASYSAL", "MISYSAL", "XLXTSPACE",
"XLXTELEI", "TTMAPPF", "MSUDSCRD", "OVZMSG", "GFGTMATCH", "GFGTNOMCH", "GFGTNOLKUP",
"MSUSCCPFLR", "SCCPLOOP", "MSULOST6" <cr><lf>
"K", 36102314, 0, 6055635, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 86400, 86400,
288, 600, 960, 0, 0, 0, 0, 0, 0, 0, 0 <cr><lf>
```

Typical file size:

System header	+	Report header	+	Report data	=	File Size
250	+	455	+	240	=	945 bytes

enttype=link

Certain registers are reported for HSLs or LSLs only. Other registers have different interpretations for HSLs than for LSLs. These registers are summarized in Table 4-23.

Table 4-23. HSL LSL Differences for Daily Maintenance Links

Event Name	LSL Usage	HSL Usage
DRBSYLNK	As described	N/A - not reported
NEGACKS	As described	N/A - not reported
SDURETRAN	N/A - not reported	As described

Table 4-23. HSL LSL Differences for Daily Maintenance Links (Continued)

Event Name	LSL Usage	HSL Usage
SURCVERR	Applies to FISU, LSSU, and MSUs	Applies to PDUs
TLNKACTV	As described	Time the link is active and giving MSUs to SAAL
NDCFLABN	As described	N/A - not reported
NDCFLXDA	Level 2 timer t7 expired	Timer NO_RESPONSE expired for POLL/STAT response
NDCFLXDC	Level 2 timer t6 expired	Timer NO_CREDIT expired
PCRN1N2EXC	As described	N/A - not reported
MSURETRN	As described	N/A - not reported
MSURCERR	As described	N/A - not reported
OCTRETRN	As described	N/A - not reported

Example Commands:

OAM: `rept-meas:type=mtcd:enttype=link:loc=xxxx:link=x`

MP: `rept-ftp-meas:type=mtcd:enttype=link`

Table 4-24. Daily Maintenance Link Measurements

Event Name	Description	Unit
ACHGOVRS	Number of Automatic Changeovers - Number of times that a changeover procedure was used to divert traffic from one link to alternative links.	peg count
DRBSYLNK	Cumulative Duration of Busy Link Status - The total elapsed time between the receipt of a busy LSSU, and when the next message was acknowledged. This is the sum of all occurrences of busy link status.	seconds
DRDCLFLR	Cumulative Duration of Signaling Link Declared Failures All Types - The cumulative duration of all link failures.	seconds
DRFEPRO	Duration of Far-End Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the far-end network element (SIPO received).	seconds
DRLCLPRO	Duration of Local Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the near-end network element.	seconds
DRLKINHB	Duration Link Inhibited - The cumulative duration that a link was inhibited at the local or far-end network element.	seconds
ECCNGLV1	Event Count for Entering Level 1 Link Congestion - The total number of times that link congestion level 1 was entered.	peg count

Measurements

Table 4-24. Daily Maintenance Link Measurements (Continued)

Event Name	Description	Unit
ECCNGLV2	Event Count for Entering Level 2 Link Congestion - The total number of times that link congestion level 2 was entered.	peg count
ECCNGLV3	Event Count for Entering Level 3 Link Congestion - The total number of times that link congestion level 3 was entered.	peg count
FARMGINH	Number of Far-End Management Inhibits - Number of times a link was inhibited successfully from the far-end.	peg count
LNKAVAIL	Link Available Time - The total time the link was available to MTP level 3.	seconds
MSUDISC0	Priority 0 MSUs Discarded Due to Congestion - The total number of priority 0 MSUs discarded due to congestion (any level).	peg count
MSUDISC1	Priority 1 MSUs Discarded Due to Congestion - The total number of priority 1 MSUs discarded due to congestion (any level).	peg count
MSUDISC2	Priority 2 MSUs Discarded Due to Congestion - The total number of priority 2 MSUs discarded due to congestion (any level).	peg count
MSUDISC3	Priority 3 MSUs Discarded Due to Congestion - The total number of priority 3 MSUs discarded due to congestion (any level).	peg count
MSURCERR	The number of MSUs received in error.	peg count
MSURECVD	MSUs Received - Total number of MSUs received, including those for which retransmission has been requested.	peg count
MSURETRN	MSUs Retransmitted - Number of MSUs retransmitted because of errors.	peg count
MSUTRAN	MSUs Transmitted - Total number of MSUs transmitted to the far-end, including retransmissions.	peg count
NDCFLABN	Number of Signaling Unit Failures - Abnormal FIB/BSN - Number of times the signaling link was taken out-of-service because the STP received abnormal FIBs/BSNs. A count accumulates if two backward sequence number values in three consecutively received MSUs, or FISUs are not the same as the previous one, or any of the forward sequence numbers of the signal units in the retransmission buffer at the time they are retransmitted.	peg count
NDCFLXDA	Number of Signaling Link Failures - Excessive Delay of Acknowledgment - Number of times a signaling link was out-of-service due to an excessive delay in acknowledgments.	peg count
NDCFLXDC	Number of Signaling Link Failures - Excessive Duration of Congestion - Number of times a signaling link was out-of-service because the timer T6 (remote congestion) expired.	peg count
NDCFLXER	Number of Signaling Link Failures - Excessive Error Rate - Number of times a signaling link was out-of-service because it reached the signal unit error rate monitor (SUERM) threshold.	peg count

Table 4-24. Daily Maintenance Link Measurements (Continued)

Event Name	Description	Unit
NEARMGIH	Number of Near-End Management Inhibits - Number of times a link was unavailable to MTP level 3 because it was locally inhibited.	peg count
NEGACKS	Number of Negative Acknowledgments Received - Number of times the BSN in an MSU was inverted, indicating a retransmission request.	peg count
NMLCLPRO	Number of Local Processor Outages - The total number of local processor outages in this STP.	peg count
NMDCLFLR	Number of Signaling Link Declared Failures All Types - The cumulative total of all link failures.	peg count
NMFEPRO	Number of Far-End Processor Outages - Number of far-end processor outages that have occurred.	peg count
OCTRECVD	MSU Octets Received - Total number of octets associated with MSUs received, including those removed for MTP level 2 processing and those for which retransmission has been requested.	octets
OCTRETRN	The number MSU octets retransmitted	peg count
OCTTRAN	MSU Octets Transmitted - Total number of octets associated with MSUs transmitted to the far-end, including those added in MTP level 2 processing and retransmissions.	octets
PCRN1N2EXC	PCR N1 or N2 Count Exceeded - The total number of forced retransmissions when preventive cyclic retransmission (PCR) is used as the error correction method on a link.	peg count
SDURETRN	SSCOP SD PDUs Retransmitted - The number of SSCOP SD PDUs that were retransmitted, based on an accumulated count of such retransmissions, conveyed to layer management. This measurement replaces the MTP level 2 negative acknowledgements.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
SURCVERR	Number of Signal Units Received In Error - Number of signal units received with checksum errors, indicating transmission errors.	peg count
TDCNGLV1	Total Duration of Level 1 Link Congestion - The total time the link was in level 1 congestion.	seconds
TDCNGLV2	Total Duration of Level 2 Link Congestion - The total time the link was in level 2 congestion.	seconds
TDCNGLV3	Total Duration of Level 3 Link Congestion - The total time the link was in level 3 congestion.	seconds
TLNKACTV	Signaling link active time - the total time that the signaling link is in service and actively transmitting MSUs	seconds

Measurements

OAM Example Output:

```
eagle10506 03-04-15 13:11:01 EST EAGLE 34.0.0
TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59
```

```
LINK-MTCD MEASUREMENTS: LOC: 1201, LINK: A , LSN: lsn123
```

```
These measurements are from 03-04-15, 00:00:00 through 12:59:59.
```

```
MSUTRAN      =      95, MSURECVD    =      95, MSURETRN    =      0,
OCTRETRN     =      0, OCTTRAN     =     1900, OCTRECVD     =     1900,
TDCNGLV1     =      0, TDCNGLV2   =      0, TDCNGLV3     =      0,
ECCNGLV1     =      0, ECCNGLV2   =      0, ECCNGLV3     =      0,
MSUDISC0     =      0, MSUDISC1   =      0, MSUDISC2     =      0,
MSUDISC3     =      0, TLNKACTV   =      0, LNKAVAIL     =     3159,
ACHGOVRS     =      0, NEARMGIH   =      0, FARMGINH     =      0,
NMDCLFLR     =      0, DRDCLFLR  =      0, SURCVERR     =      0,
NEGACKS      =      0, DRLKINHB  =      0, NDCFLABN     =      0,
NDCFLXDA     =      0, NDCFLXER  =      0, NDCFLXDC     =      0,
NMFEPRO      =      0, NMLCLPRO  =      0, DRFEPRO      =      0,
DRLCLPRO     =      0, MSURCERR   =      0, DRBSYLNK     =      0,
PCRN1N2EXC   =      0
```

```
;
```

```
eagle10506 03-04-15 13:11:02 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-MTCD MEASUREMENT REPORT
```

```
;
```

```
eagle10506 03-04-15 13:11:17 EST EAGLE 34.0.0
TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59
```

```
LINK-MTCD MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn123 (SAAL)
```

```
These measurements are from 03-04-15, 00:00:00 through 12:59:59.
```

```
MSUTRAN      =      0, MSURECVD    =      0, OCTTRAN     =      0,
OCTRECVD     =      0, TDCNGLV1   =      0, TDCNGLV2     =      0,
TDCNGLV3     =      0, ECCNGLV1   =      0, ECCNGLV2     =      0,
ECCNGLV3     =      0, MSUDISC0   =      0, MSUDISC1     =      0,
MSUDISC2     =      0, MSUDISC3   =      0, TLNKACTV     =      0,
LNKAVAIL     =      0, ACHGOVRS   =      0, NEARMGIH     =      0,
FARMGINH     =      0, NMDCLFLR  =      0, DRDCLFLR     =      0,
SURCVERR     =      0, DRLKINHB  =      0, NDCFLXDA     =      0,
NDCFLXER     =      0, NDCFLXDC  =      0, NMLCLPRO     =      0,
DRLCLPRO     =      0, SDURETRN   =      0
```

```
;
```

```
eagle10506 03-04-15 13:11:19 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-MTCD MEASUREMENT REPORT
```

```
;
```

MP Example Output File Name: mtcd-link_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
```


Measurements

Table 4-25. Daily Maintenance Linkset Measurements (Continued)

Event Name	Description	Unit
ZTTMAPI	Translation Type Mapping Translation Performed - MSUs Received on the Gateway Linkset - The total number of Translation Type Mapping translations performed for incoming Message Signal Units (MSUs) received on the specified linkset.	peg count
ZTTMAPO	Translation Type Mapping Translation Performed - MSUs Transmitted on the Gateway Linkset - The total number of translations performed on outgoing Message Signal Units (MSUs) for the specified linkset.	peg count

OAM Example Output:

```

tekelecstp 07-01-02 12:01:47 EST EAGLE 35.6.0
TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON LINKSET
REPORT PERIOD: LAST
REPORT INTERVAL: 07-01-01, 00:00:00 THROUGH 11:59:59

LNKSET-MTCD MEASUREMENTS: lsl201a

These measurements are from 07-01-02, 00:00:00 through 11:59:59.
ZTTMAPO = 196611, ZTTMAPI = 3, SCCPLOOP = 5

;

tekelecstp 07-01-02 12:01:49 EST EAGLE 35.6.0
END OF ON-DEMAND LNKSET-MTCD MEASUREMENT REPORT
;

```

MP Example Output File Name: mtcd-lnkset_20070101_2400.csv

MP Example Output File Format:

```

"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "35.6.0-56.34.0", "2007-01-02", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON
LINKSET", "LAST", "2007-01-01", "00:00:00", "24:00:00", 500<cr><lf>
<cr><lf>
"STATUS", "LSN", "LNKTYPE", "ZTTMAPO", "ZTTMAPI", "SCCPLOOP"<cr><lf>
"K", "lsl100", "SAAL", 196611, 3<cr><lf>

. . . . .

"K", "lsl600", "MTP2", 123456, 98374<cr><lf>

```

Assuming each data line will be:

4 char status + 9 char LSN + 7 char LNKTYPE + 3*(6 char data) + 2 = 40 chars

For a report of 500 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	46	+	20000	=	20296 bytes

enttype=lnp

The enttype=lnp entity generates four separate reports per period. These reports for OAM based measurements are generated to CSV files in the FTA. The command example will generate the following daily reports:

- Daily LNP System Wide Measurements
- Daily LNP Measurements Per SSP
- Daily LNP Measurements Per LRN
- Daily LNP Measurements Per NPA

All the OAM reports are listed together as are the MP reports.

Example Commands:

OAM: `rept-meas:type=mtcd:enttype=lnp[:day=xxx:period=yyyyyyyy]`

MP: `rept-ftp-meas:type=mtcd:enttype=lnp[:day=xxx:period=yyyyyyyy]`

Table 4-26. Daily Maintenance LNP System Wide Measurements

Event Name	Description	Unit
LNPQRCV	<i>Trigger Based</i> The total number of queries received by LNPQS.	peg count
	<i>Triggerless</i> Number of encapsulated IAM messages received by LNPQS	peg count
LNPQDSC	<i>Trigger Based</i> The number of invalid queries that are discarded because no reply can be generated.	peg count
	<i>Triggerless</i> All invalid IAM messages are routed without LNP; LNPQTCPE is pegged.	not applicable
LNPQTCPE	<i>Trigger Based</i> The number of error replies with TCAP error codes.	peg count
	<i>Triggerless</i> The number of invalid encapsulated IAM messages received by LNPQS. Note that these messages are routed to their destinations with no LNP lookup.	peg count
LNPSREP	<i>Trigger Based</i> The number of successful replies.	peg count
	<i>Triggerless</i> The number of successful IAM messages.	peg count

Measurements

Table 4-26. Daily Maintenance LNP System Wide Measurements (Continued)

Event Name	Description	Unit
LNPQUNPA	<i>Trigger Based</i> The number of correct queries received for non-ported DN when NPA-NXX is not provisioned.	peg count
	<i>Triggerless</i> The number of correct encapsulated IAM messages received for a non-ported DN, when the NPA-NXX is not provisioned.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

Table 4-27. Daily Maintenance LNP Per SSP Measurements

Event Name	Description	Unit
SSPQRCV	Trigger Based Number of correct queries received per originating SSP.	peg count
	Triggerless The number of correct encapsulated IAM messages received by LNPQS per OPC.	peg count
CLASSGTRQ	Number of valid CLASS GTT received per originating SSP.	peg count
LIDBGTRQ	Number of valid LIDB GTT received per originating SSP.	peg count
SSPQRCVP	Number of correct queries received for ported TNs, per originating SSP.	peg count
SSPQRCVNP	Number of correct queries received for non-ported TNs, per originating SSP.	peg count
CLASSGTRQP	Number of CLASS Global Title Translation received for ported TNs, per originating SSP.	peg count
CLASSGTRQNP	Number of CLASS Global Title Translation received for non-ported TNs, per originating SSP.	peg count
LIDBGTRQP	Number of LIDB Global Title Translation received for ported TNs, per originating SSP.	peg count
LIDBGTRQNP	Number of LIDB Global Title Translation received for non-ported TNs, per originating SSP.	peg count
CNAMGTRQP	Number of CNAM Global Title Translation received for ported TNs, per originating SSP.	peg count
CNAMGTRQNP	Number of CNAM Global Title Translation received for non-ported TNs, per originating SSP.	peg count
ISVMGTRQP	Number of ISVM Global Title Translation received for ported TNs, per originating SSP.	peg count

Table 4-27. Daily Maintenance LNP Per SSP Measurements (Continued)

Event Name	Description	Unit
ISVMGTRQNP	Number of ISVM Global Title Translation received for non-ported TNs, per originating SSP.	peg count
WSMSCGTRQP	Number of WSMSC Global Title Translations received for ported TNs, per originating SSP	peg count
WSMSCGTRQNP	Number of WSMSC Global Title Translations received for non-ported TNs, per originating SSP	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

The following equations apply:

$$SSPQRCV = SSPQRCVP + SSPQRCVNP$$

$$CLASSGTRQ = CLASSGTRQP + CLASSGTRQNP$$

$$LIDBGTRQ = LIDBGTRQP + LIDBGTRQNP$$

Table 4-28. Daily Maintenance LNP LRN Measurements

Event Name	Description	Unit
LRNQRCV	<i>Trigger Based</i> The number of correct queries received per LRN.	peg count
	<i>Triggerless</i> The number of correct encapsulated IAM messages received per LRN.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

Measurements

Table 4-29. Daily Maintenance LNP NPA Measurements

Event Name	Description	Unit
NPAQRCV	The number of correct queries received per NPANXX for non-ported DN.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Reports

Daily LNP System Wide Measurements

OAM Example Output File Name: M60_LNP.csv

OAM Example Output File Format:

```
"tekelecstp 01-08-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON LNP SYSTEM"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 01-08-02, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>
"LNPQRCV", "LNPQDSC", "LNPQTCPE", "LNPSREP", "LNPQUNPA"<cr><lf>
4294967295, 4294967295, 4294967295, 4294967295, 4294967295<cr><lf>
```

Daily LNP Measurements Per SSP

OAM Example output File Name: M60_SSP.csv

OAM Example Output File Format:

```
"tekelecstp 99-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON LNP SSP"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 99-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
"NUMBER OF ENTIDS: 2"<cr><lf>
<cr><lf>
"SSP", "SSPQRCV", "CLASSGTRQ", "LIDBGTRQ" "SSPQRCVP", "SSPQRCVNP", "CLASSGTRQP",
"CLASSGTRQNP", "LIDBGTRQP", "LIDBGTRQNP", "CNAMGTRQP", "CNAMGTRQNP", "ISVMGTRQP", "
ISVMGTRQNP", "WSMSCGTRQP", "WSMSCGTRQNP" <cr><lf>
"002-002-100", 123456789, 456789, 99999, 123456789, 456789, 99999,
123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
"002-002-123", 123456789, 456789, 99999, 123456789, 456789, 99999,
123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
```

Daily LNP Measurements Per LRN

OAM Example Output File Name: M60_LRN.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON LNP LRN"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
"NUMBER OF ENTIDS: 6"<cr><lf>
<cr><lf>
"LRN", "LRNQRCV"<cr><lf>
9194560000,123456789<cr><lf>
4087550001,23456789<cr><lf>
5155550000,456789<cr><lf>
3022330001,345<cr><lf>
7032110002,99999<cr><lf>
8123048059,4294967295<cr><lf>
```

Daily LNP Measurements Per NPA

OAM Example Output File Name: M60_NPA.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON LNP NPXNXX"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
"NUMBER OF ENTIDS: 6"<cr><lf>
<cr><lf>
"NPANXX", "NPAQRCV"<cr><lf>
919456,123456789<cr><lf>
408755,23456789<cr><lf>
515555,456789<cr><lf>
302233,345<cr><lf>
703211,99999<cr><lf>
812304,4294967295<cr><lf>
```

MP Reports

Daily LNP System Wide Measurements

MP Example Output File Name: mtc-d-lnp_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON LNP SYSTEM", "LAST",
"1999-01-16", "00:00:00", "24:00:00", 1<cr><lf>
<cr><lf>
"STATUS", "LNPQRCV", "LNPQDSC", "LNPQTCPE", "LNPSREP", "LNPQUNPA"<cr><lf>
"K", 429496729, 429496729, 429496729, 429496729, 429496729<cr><lf>
```

Typical file size is:

System header		Report header		Report data	=	File Size
250	+	63	+	34	=	347 bytes

Measurements

Daily LNP Measurements Per SSP

MP Example Output File Name: mtcd-ssp_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE", "IVALSTART",
"IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON LNP
SSP", "LAST", "1999-01-16", "00:00:00", "24:00:00", 200<cr><lf>
<cr><lf>
"STATUS", "SSP", "SSPQRCV", "CLASSGTRQ", "LIDBGTRQ", "SSPQRCVP", "SSPQRCVNP", "CLASSGTR
QP", "CLASSGTRQNP", "LIDBGTRQNP", "LIDBGTRQNP", "CNAMGTRQP", "CNAMGTRQNP", "ISVMGTRQP",
"ISVMGTRQNP", "WSMSCGTRQP", "WSMSCGTRQNP"<cr><lf>
"K", "002-002-100", 123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789
,
99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
. . . . .
"K", "002-005-123", 123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789
,
99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
```

Assuming each data line will be:

4 char status + 14 char SSP + 15*(6 char data) + 2 = 110 chars

For a report of 200 SSPs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	160	+	22000	=	22410 bytes

Daily LNP Measurements Per LRN

MP Example Output File Name: mtcd-lrn_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON LNP
LRN", "LAST", "1999-01-16", "00:00:00", "24:00:00", 600<cr><lf>
<cr><lf>
"STATUS", "LRN", "LRNQRCV"<cr><lf>
"K", 9194560000, 123456789<cr><lf>
"K", 4087550001, 23456789<cr><lf>
"K", 5155550000, 456789<cr><lf>
. . . . .
"K", 3022330001, 345<cr><lf>
"K", 7032110002, 99999<cr><lf>
"K", 8123048059, 4294967295<cr><lf>
```

Assuming each data line will be:

4 char status + 11 char LRN + 6 char data + 2 = 23 chars

For a report of 600 LRNs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		27		13800		14077 bytes

Daily LNP Measurements Per NPA

MP Example Output File Name: mtc-d-mpa_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON LNP NPANXX", "LAST",
"1999-01-16", "00:00:00", "24:00:00", 600<cr><lf>
<cr><lf>
"STATUS", "NPANXX", "NPAQRCV" <cr><lf>
"K", 919456, 123456789<cr><lf>
"K", 408755, 23456789<cr><lf>
"K", 515555, 456789<cr><lf>
. . . . .
"K", 302233, 345<cr><lf>
"K", 703211, 99999<cr><lf>
"K", 812304, 4294967295<cr><lf>
```

Assuming each data line will be:

4 char status + 7 char NPANXX + 6 char data + 2 = 19 chars

For a report of 600 LRNs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		30		11400		11680 bytes

enttype=np

The enttype=np entity generates two separate reports per period. These reports for OAM based measurements are generated to CSV files in the FTA. The command example will generate the following daily reports:

- Daily INP and G-Port System Wide Measurements
- Daily INP and G-Port Measurements Per SSP

All the OAM reports are listed together as are the MP reports.

Example Commands:

Measurements

OAM: `rept-meas:type=mtcd:enttype=np`

MP: `rept-ftp-meas:type=mtcd:enttype=np`

Table 4-30. Daily Maintenance INP and G-Port System Wide Measurements

Event Name	Description	Unit
INPQRCV	Number of total queries received by INPQS.	peg count
INPQDSC	Number of invalid queries that are discarded as no reply can be generated.	peg count
INPQTCPE	Number of error replies with TCAP error code.	peg count
INPSREP	Number of successful replies to INP non-queried queries. These replies will be either INP Connect or INP Continue.	peg count
GPSRRCV	Number of call related (SRI-Send Routing Information) messages received.	peg count
GPSRGTT	Number of call related (SRI-Send Routing Information) messages that fell through to GTT.	peg count
GPSRREP	Number of call related (SRI-Send Routing Information) messages that received G-Port service.	peg count
GPSRERR	Number of call related messages that cause an error response message (SRI-Send Routing Information NEGATIVE ACK).	peg count
GPNOCL	Number of non-call related messages relayed by G-Port.	peg count
GPNOCLGT	Number of non-call related messages that fell through to GTT.	peg count
IS41LRERR	Number of IS-41 location request - error response messages sent.	peg count
IS41LRMRCV	Number of IS-41 location request messages received.	peg count
IS41LRRTRN	Number of IS-41 location request - return result messages sent.	peg count
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status

The following equations apply:

$$\text{INPQRCV} = \text{INPQDSC} + \text{INPQTCPE} + \text{INPSREP}$$

$$\text{GPSRRCV} = \text{GPSRGTT} + \text{GPSRREP} + \text{GPSRERR}$$

Table 4-31. Daily Maintenance INP and G-Port Per SSP Measurements

Event Name	Description	Unit
INPQSCONN	Number of non-errored QS messages with QS Connect responses, per originating SSP.	peg count
INPQSCONT	Number of non-errored QS messages with QS Continue responses, per originating SSP.	peg count
INPMRTR	Number of messages sent to MR service that receive MR translation, per originating SSP.	peg count
INPMRGTT	Number of messages sent to MR service that fall through to GTT, per originating SSP.	peg count
GPSRACK	Number of call related (SRI-Send Routing Information ACK) responses.	peg count
GPSRRLY	Number of call related (SRI-Send Routing Information) messages relayed.	peg count
GPNACL	Number of non-call related messages relayed by G-Port.	peg count
GPNACLGT	Number of non-call related messages that fell through to GTT.	peg count
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status

The following equation applies:

$$GPSRREP = \hat{A}GPSRACK + \hat{A}GPSRRLY$$

OAM Reports

Daily INP and G-Port System Wide Measurements When INP=ON and GPORT=ON

OAM Example Output File Name: M60_NP.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON NP SYSTEM"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>

"INPQRCV", "INPQDSC", "INPQTCPE", "INPSREP", "GPSRRCV", "GPSRGTT", "GPSRREP",
"GPSRRER", "GPNACL", "GPNACLGT", "IS41LRERR", "IS41LRMRCV", "IS41LRRTRN"<cr><lf>
4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295,
4294967295, 4294967295, 4294967295<cr><lf>
```

Measurements

Daily INP and G-Port Measurements Per SSP When INP=ON and GPORT=ON

OAM Example output File Name: M60_SSP.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON NP SSP"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>

"INPQSCONN", "INPQSCONT", "INPMRTR", "INPMRGTT", "GPSRACK", "GPSRRLY", "GPNACL",
"GPNACLGT"<cr><lf>
4294967295,429495,4294967295,429495,4294967295,429495,4294967295,429495<cr><lf>
```

MP Reports

Daily INP and G-Port System Wide Measurements When INP=ON and GPORT=ON

MP Example Output File Name: *mtcd-np_19990116_2400.csv*

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON NP
SYSTEM", "LAST", "1999-01-16", "00:00:00", "24:00:00", 1<cr><lf>
<cr><lf>
"STATUS", "INPQRCV", "INPQDSC", "INPQTCPE", "INPSREP", "GPSRRCV", "GPSRGTT", "GPSRREP",
"GPSRERR", "GPNACL", "GPNACLGT", "IS41LRERR", "IS41LRMRCV", "IS41LRRTN"<cr><lf>
"K", 4294967295,4294967295,4294967295,4294967295,4294967295,4294967295,4294967295,
4294967295,4294967295,4294967295<cr><lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	113	+	66	=	429 bytes

Daily INP and G-Port Measurements Per SSP When INP=ON and GPORT=ON

MP Example Output File Name: *mtcd-ssp_19990116_2400.csv*

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON NP
SSP", "LAST", "1999-01-16", "00:00:00", "24:00:00", 1<cr><lf>
<cr><lf>
"STATUS",
"INPQSCONN", "INPQSCONT", "INPMRTR", "INPMRGTT", "GPSRACK", "GPSRRLY", "GPNACL",
```

```
"GPNOCCLGT"<cr><lf>
"K",4294967295,429495,4294967295,429495,4294967295,429495,4294967295,429495<cr><lf>
>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		+ 98		+ 54		= 402 bytes

enttype=stplan

NOTE: The peg counts for STPLAN measurements have the possibility of rolling over during periods of high STPLAN message transmit and receive. On the measurement reports these measurements show up as negative numbers. This indicates STPLAN transmit and receive measurements have values greater than four gigabytes of data.

Example Commands:

OAM: `rept-meas:type=mtcd:enttype=stplan`

MP: `rept-ftp-meas:type=mtcd:enttype=stplan`

Table 4-32. Daily Maintenance STPLAN Measurements

Event Name	Description	Unit
ENETALNERR	Ethernet Alignment Error - Number of packets not received over the STPLAN interface because of ethernet alignment errors.	peg count
ENETBUSBSY	Ethernet Bus Busy - Number of transmissions attempted when the STPLAN ethernet bus was busy.	peg count
ENETCRCERR	Ethernet CRC Error - Number of packets not received on the STPLAN ethernet due to CRC errors.	peg count
ENETCOLERR	Ethernet Collision Error - Number of packets not transmitted by STPLAN because of excessive collisions on the STPLAN ethernet bus.	peg count
ENETOCTRCV	Ethernet Octets Received - The total number of octets received on the STPLAN ethernet interface.	peg count
ENETOCTXMT	Ethernet Octets Transmitted - The total number of octets transmitted on the STPLAN ethernet interface.	peg count
ENETOVRERR	Ethernet Receive Buffer Overflow Errors - Number of packets not received by STPLAN because of a receive buffer overflow.	peg count
IPADDRERR	IP Address Error - The total number of inbound IP datagrams discarded on the STPLAN interface due to a bad destination address.	peg count
IPHDRERR	IP Header Errors - The total number of inbound IP datagrams discarded on the STPLAN interface due to header errors.	peg count

Measurements

Table 4-32. Daily Maintenance STPLAN Measurements (Continued)

Event Name	Description	Unit
IPPROTERR	IP Protocol Error - Number of inbound IP datagrams discarded by STPLAN due to an error in the packet (invalid protocol).	peg count
SLANDISC1	STPLAN Discarded 1 - Number of indicated messages not copied to the host due to the STPLAN feature being disabled.	peg count
SLANDISC2	STPLAN Discarded 2 - Number of MSUs discarded due to the host being unreachable.	peg count
SLANDSBLD	STPLAN Disabled - The duration that the STPLAN screening/copy feature was disabled.	msecs
SLANSCRND	STPLAN Screened - Number of MSUs that were copied to the STPLAN interface after passing gateway screening.	peg count
SLANXMIT	STPLAN Transmit - Number of MSUs sent to the host destination.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
TCPCONNFLD	TCP Connections Failed - The total number of TCP connections that have failed on the STPLAN interface.	peg count
TCPRCVERR	TCP Receive Error - The total number of TCP segments received on the STPLAN interface in error.	peg count
TCPRSTSENT	TCP Reset Sent - The total number of TCP segments sent containing the reset (RST) flag on the STPLAN interface.	peg count
TCPSEGRDVD	TCP Segment Received - The total number of TCP segments received on the STPLAN interface.	peg count
TCPSEGSENT	TCP Segment Sent - The total number of TCP segments sent on the STPLAN interface.	peg count
TCPSEGXMT2	TCP Segment Retransmitted - The total number of TCP segments retransmitted on the STPLAN interface.	peg count

OAM Example Output:

```
tekelecstp 01-08-18 00:00:21 EST EAGLE 34.0.0
TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON STPLAN
REPORT PERIOD: LAST
REPORT INTERVAL: 01-08-17 00:00:00 THRU 23:59:59
```

STPLAN-MTCD MEASUREMENTS

```
SLANDSBLD = 0, SLANDISC1 = 0, SLANDISC2 = 0,
SLANSCRND = 0, SLANXMIT = 0, ENETALNERR = 0,
ENETCRCERR = 0, ENETCOLERR = 0, ENETBUSBSY = 0,
ENETOVRERR = 0, ENETOCTXMT = 0, ENETOCTRCV = 0,
TCPCONNFLD = 0, TCPSEGRDVD = 0, TCPSEGSENT = 0,
TCPSEGXMT2 = 0, TCPRCVERR = 0, TCPRSTSENT = 0,
IPHDRERR = 0, IPADDRERR = 0, IPPROTERR = 0
```


Measurements

Table 4-33. Daily Maintenance EIR Measurements (Continued)

Event Name	Description	Unit
BLKALIMEI	Total number of searches that resulted in a match with a "black listed" IMEI, but were allowed due to IMSI Check match	peg count
BLKNALIMEI	Total number of searches that resulted in a match with a "black listed" IMEI, and the IMSI in the database did not match the IMSI in the message	peg count
UNKNIMEI	Total number of searches that resulted in a match with an "unknown" IMEI	peg count
NOMTCHIMEI	Total number of searches that resulted in no match in the database. NOMTCHIMEI is pegged whenever an IMEI is not found in the database.	peg count

The following equation applies:

$$\text{IMEIRCV} = \text{WHITEIMEI} + \text{GRAYIMEI} + \text{UNKNIMEI}$$

MP Example Output File Name: mtcd-eir_20030816_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-51.1.0", "2003-08-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON EIR SYSTEM", "LAST", "2003-08-16",
"00:00:00", "24:00:00", 1<cr><lf>
<cr><lf>
"IMEIRCV", "WHITEIMEI", "GRAYIMEI", "BLACKIMEI", "BLKALIMEI", "BLKNALIMEI", "UNKNIMEI", "
NOMTCHIMEI" <cr><lf>
4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295,
4294967295<cr><lf>
```

Typical file size is:

System header		Report header		Report data	=	File Size
256	+	95	+	89	=	440 bytes

enttype=mapscrn

The enttype=mapscrn entity generates two separate reports per period.

The reports for OAM based measurements are generated to CSV files in the FTA. The command example generates the following daily OAM-based measurement reports when the GSM MAP Screening feature is activated:

- Daily MAP Screening System Wide Measurements
- Daily MAP Screening Measurements Per Server

The command example generates the following daily MP-based measurement reports when the GSM MAP/Enhanced GSM MAP Screening feature is activated:

- Daily MAP Screening System Wide Measurements
- Daily MAP Screening Measurements Per Path

All the OAM reports are listed together as are the MP reports.

NOTE: When MTP MAP Screening is enabled and on, the registers in Table 4-34 and Table 4-37 include the sum total of MTP-routed and GTT-routed messages for the particular event.

Example Commands:

OAM: `rept-meas:type=mtcd:enttype=mapscrn`

MP: `rept-ftp-meas:type=mtcd:enttype=mapscrn`

Table 4-34. Daily Maintenance MAP Screening System Wide Measurements

Event Name	Description	Unit
MSCRNPASS	Total number of messages that Passed MAP screening	count
MSCRNRJNE	Total number of messages that got Rejected by MAP screening because an entry was not found in the MAP screening table (i.e. rejected as System wide MAP Opcode action is DISCARD)	count
MSCRNRJFP	Total number of messages that got Rejected by MAP screening due to forbidden parameters in the message.	count
MSCRNPAFP	Total number of messages that contained the forbidden parameter but were not rejected due to Screening action set as PASS.	count
MSCRNPANE	Total number of messages, where an entry was not found in the MAP screening table but the Message was not rejected as screening action was marked as PASS (i.e. not rejected as System wide MAP Opcode action is PASS)	count
MSCRNRJOP	Total number of message that got rejected as Message MAP Opcode was not found in the MAP Opcode table (system wide action - DISCARD for the non matching OPCODEs)	count
MSCRNDUP	Total number of messages that were selected by MAP Screening for the Duplicate screening action.	count
MSCRNFOR	Total number of messages that were selected by MAP Screening for the Forward screening action.	count
MSCRNDAD	Total number of messages that were selected by MAP Screening for the Duplicate and Discard screening action.	count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

Measurements

Server Entity Identification information in Table 4-35 is used to clarify the server the Maintenance MAP Screening Per Server Measurements are applicable.

Table 4-35. Server Entity Identification

Entity Name	Description
SERVER	The screened origination address of the calling party address (CGPA) assigned when the GSM MAP screen was entered.
NP	The screened number plan value (NPV) assigned to the server address when the GSM MAP screen was entered. This field is filled with the default identifier * if no value was assigned.
NAI	The screened nature of address value (NAIV) assigned to the server address when the GSM MAP screen was entered. This field is filled with the default identifier * if no value was assigned.
OPCODE	The operation code number assigned when the GSM MAP opcode was entered.
Measurements does not report entries created for a range of addresses.	

Server Path Entity Identification information in Table 4-36 is used to clarify the path the Maintenance MAP Screening Per Path Measurements are applicable.

Table 4-36. Path Entity Identification

Entity Name	Description
PATH	<p>The screened origination address of the calling party address (CGPA-NP-NAI), or a combination of screened destination address of the called party address (CDPA-NP-NAI) and the screened origination addresses assigned when the GSM MAP screen was entered.</p> <p>The possible fields within the path are delimited as follows to allow for efficient sorting:</p> <ul style="list-style-type: none"> When both the origination and destination addresses are present (as either single server entries or provisioned wildcard entries) the origination address is preceded by a carat (^) and the destination address is preceded by a "greater than" sign (>): ^CGPA-NP-NAI>CDPA-NP-NAI When only the origination address is present (occurs when the CDPA is a default wildcard) it is preceded by a "less than" sign (<): <CGPA-NP-NAI
CGPA	The calling party global title address assigned when the GSM MAP screen was entered. Any or all of the three fields (GTA, NP, NAI) can be filled with the identifier (*) if a wildcard value is assigned for that field. There is no default wildcard value for the CGPA.
CDPA	The called party global title address assigned when the GSM MAP screen was entered. Any or all of the three fields (GTA, NP, NAI) can be filled with the identifier (*) if a wildcard value is assigned for that field. If the CDPA value is not assigned, the default wildcard value, which is not printed, is assumed.
NP	The screened number plan value (NPV) assigned to the path address when the GSM MAP screen was entered. The identifier (*) is used to signify a wildcard NP.

Table 4-36. Path Entity Identification (Continued)

Entity Name	Description
NAI	The screened nature of address value (NAIV) assigned to the path address when the GSM MAP screen was entered. The identifier (*) is used to signify a wildcard NAI.
OPCODE	The operation code number assigned when the GSM MAP opcode was entered. The identifier (*) is used to signify a wildcard opcode.
Measurements does not report entries created for a range of addresses. Measurements does not report default wildcard CDPA address in entries containing them. There can never be a default wildcard CGPA entry. All wildcard CGPA entries must be explicitly provisioned. There can never be an entry with only a CDPA path listed. The string formats were designed to allow efficient automated post processing of measurements reports. A brief note explaining the format is included in the report.	

Table 4-37. Daily Maintenance MAP Screening Per Server Measurements

Event Name	Description	Unit
MSCRNPASS	Total number of messages that Passed MAP screening	count
MSCRNRJFP	Total number of messages that got Rejected by MAP screening due to forbidden parameters in the message.	count
MSCRNDUP	Total number of messages per server that were selected by MAP Screening for the Duplicate screening action.	count
MSCRNFOR	Total number of messages per server that were selected by MAP Screening for the Forward screening action.	count
MSCRNDAD	Total number of messages per server that were selected by MAP Screening for the Duplicate screening action.	count
MSCRNPAPF	Total number of messages that contained the forbidden parameter but were not rejected due to Screening action set as PASS.	count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Reports

Daily MAP Screening System Wide Measurements

OAM Example Output File Name: M60_MAP.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON MAP Screening SYSTEM"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 00-04-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>
```

Measurements

```
"MSCRNPASS", "MSCRNRJNE", "MSCRNRJFP", "MSCRNPAPF", "MSCRNPANE", "MSCRNRJOP", "MSCRNDUP"  
,"MSCRNFOR", "MSCRNDAD" <cr><lf>  
4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295,  
4294967295, 4294967295 <cr><lf>
```

Daily MAP Screening Measurements Per Server

OAM Example output File Name: M60_SERV.csv

OAM Example Output File Format:

```
"tekelecstp 00-04-02 15:51:37 EST EAGLE 34.0.0-30.9.0 " <cr><lf>  
"TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON MAP Screening Server" <cr><lf>  
"REPORT PERIOD: LAST" <cr><lf>  
"REPORT INTERVAL: 00-04-01, 00:00:00 THROUGH 23:59:59 " <cr><lf>  
"NUMBER OF ENTIDS: 2" <cr><lf>  
<cr><lf>  
"SERVER-NP-NAI-OPCODE",  
"MSCRNPASS", "MSCRNRJFP", "MSCRNDUP", "MSCRNFOR", "MSCRNDAD", "MSCRNPAPF" <cr><lf>  
"123456789012345-0-0-0",  
1234567890, 1234567890, 1234567890, 1234567890, 1234567890, 1234567890 <cr><lf>  
"098765432154321-15-127-1",  
5555555555, 6666666666, 1234567890, 1234567890, 1234567890, 1234567890 <cr><lf>  
"919468-*-*255",  
1234567890, 1234567890, 1234567890, 1234567890, 1234567890, 1234567890 <cr><lf>
```

MP

Daily MAP Screening System Wide Measurements

MP Example Output File Name: mtcd-map_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",  
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>  
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",  
"DAILY MAINTENANCE MEASUREMENTS ON MAP SCREENING SYSTEM", "LAST",  
"1999-01-16", "00:00:00", "24:00:00", 1 <cr><lf>  
<cr><lf>  
"STATUS", "MSCRNPASS", "MSCRNRJOP", "MSCRNRJNE", "MSCRNRJFP", "MSCRNPAPF", "MSCRNPANE", "  
MSCRNFOR", "MSCRNDUP", "MSCRNDAD" <cr><lf>  
"K", 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4  
294967295, 4294967295 <cr><lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		116		60		426 bytes

Daily MAP Screening Measurements Per Path

MP Example Output File Name: mtcd-path_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",  
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
```

```
"tekelecstp", "34.0.0-53.8.0", "1999-01-17", "15:51:37", "EST",
"DAILY MAINTENANCE MEASUREMENTS ON MAP SCREENING PATH", "LAST",
"1999-01-16", "00:00:00", "24:00:00", 2<cr><lf>
<cr><lf>
For a path containing CGPA only, PATH-OPCODE = <CGPA-NP-NAI-OPCODE><cr><lf>
For a path containing both CGPA and CDPA, PATH-OPCODE =
^CGPA-NP-NAI>CDPA-NP-NAI-OPCODE
<cr><lf>
"STATUS", "PATH-OPCODE", "MSCRNPASS", "MSCRNRJFP", "MSCRNFOR", "MSCRNDUP", "MSCRNDAD",
"MSCRNPAFP"<cr><lf>
"K", "<123456789012345-0-0-0", 1234567890, 1234567890, 1234567890, 1234567890, 123456789
0, 1234567890<cr><lf>
"K", "<919468-*-*-120", 1234567890, 1234567890, 1234567890, 1234567890, 1234567890, 12345
67890<cr><lf>
"K", "^919468-5-63>919575-12-100-25", 1234567890, 1234567890, 1234567890, 1234567890,
1234567890, 1234567890<cr><lf>
"K", "^540992-14-45-125>919468-*-*-*", 1234567890, 1234567890, 1234567890, 1234567890,
1234567890, 1234567890<cr><lf>
```

Assuming each data line will be:

4 char status + 40 char PATH-OPCODE + 6*(6 char data) + 2 = 82 chars

For a report of 20 paths, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		244		1640	=	2134 bytes

Day-to-Hour Maintenance Measurements

The Maintenance Day-to-Hour (MTCdTH) report provides the current value of various maintenance measurements accumulating during the day.

Entity Types: : STP, Link, Lnkset, STPLAN

Accumulation Interval: : Cumulative Daily Total to the last full hour.

STP Retention Period: : 1 hour

Reporting Mode: : On-demand

Accessible Collection Periods: : Last

enttype=stp

Example Commands:

OAM: **rept-meas:type=mtcdth:enttype=stp**

MP: **rept-ftp-meas:type=mtcdth:enttype=stp**

Measurements

Table 4-38. Maintenance Day-to-Hour STP Measurements

Event Name	Description	Unit
CRSYSAL	Critical System Alarms - The total number of critical system alarms.	peg count
DRDCLFLR	Cumulative Duration of Signaling Link Declared Failures All Types - The cumulative duration of all link failures.	seconds
DURLKOTG	Duration of Link Outage - The total time a link was unavailable to MTP level 3 for any reason.	seconds
DTAMSULOST	DTA MSUs Lost - The total number of MSUs that were discarded because the redirect function was turned off or the original MSU was too large to be encapsulated.	peg count
GFGTMATCH	G-Flex GTTs with Match - The total number of G-Flex Global Title Translation successfully completed.	peg count
GFGTNOMCH	G-Flex GTTs No Match - The total number of G-Flex Global Title Translations completed that did not match an entry in the GSM database.	peg count
GFGTNOLKUP	G-Flex GTTs No Look-up - The total number of G-Flex Global Title Translations that could not be looked up in the GSM database because of some error.	peg count
GTTPERFD	GTTs Performed - The total number of MSUs that successfully completed global title translation (GTT). Also includes G-Flex and INP MSUs that got a match in either the G-Flex, INP or GTT DB.	peg count
GTTUN0NS	GTTs Unable to Perform - Diagnostic 0: No Translation for Address of Such Nature – Total number of times that the specified translation type in an MSU was not supported by the STP or the form of the GTT was incorrect for the given translation type. Also includes G-Flex, INP and GTT MSUs that did not match on new selectors (GTI, NP, NAI) in addition to ones not matching on TT.	peg count
GTTUN1NT	GTTs Unable to Perform - Diagnostic 1: No Translation for This Address – Number of times that a match for the global title could not be found in the translation table. Also includes G-Flex, INP MSUs that fell through to GTT, got a selector match, but still did not get a match on the GTA.	peg count
MSINVDPC	MSUs Rcvd – Invalid DPC - Number of MSUs received and discarded because the DPC could not be found in the STP routing table.	peg count
MSINVSIF	MSUs Discarded – Invalid SIF - Number of MSUs that have been received and discarded because of an invalid SIF.	peg count
MASYSAL	Major system alarms - The total number of major system alarms.	peg count
MISYSAL	Minor system alarms - The total number of minor system alarms.	peg count
MSINVSIO	MSUs Rcvd – Invalid Service Indicator Octet (SIO) - Number of MSUs received and discarded because the service requested in the service indicator octet (SIO) was not supported by the STP.	peg count

Table 4-38. Maintenance Day-to-Hour STP Measurements (Continued)

Event Name	Description	Unit
MSINVLNK	MSUs Discarded – Invalid Link - Number of MSUs discarded because of an incorrect SLC. (The SLC refers to a nonexistent link or the same link.)	peg count
MSINVSLC	MSUs Discarded – Invalid SLC - Number of MSUs discarded because of an invalid SLC code in the ECO/COO.	peg count
MSNACDPC	MSUs Discarded – Inaccessible DPC - The total number of MSUs discarded because of an inaccessible DPC.	peg count
MSSCCPFL	MSUs Discarded – Routing Failure - Number of MSUs discarded due to an SCCP routing failure. Also includes G-Flex, INP MSUs that got a match from either the G-Flex, INP or GTT DB but cannot be routed due to PC or SS congestion, PC or SS unavailable, SS unequipped, or an unqualified error.	peg count
MSUDSCRD	MSUs Discarded – Gateway Screening - The total number of MSUs that failed gateway screening and were discarded. See linkset report for individual peg counts.	peg count
MSULOST1	MSUs Discarded – Level 2/Level 3 Queue Full - Number of MSUs discarded because the level 2 to level 3 queue was full.	peg count
MSULOST2	MSUs Discarded – Route On Hold Buffer Overflow - Number of MSUs discarded because the routing buffer was in overflow.	peg count
MSULOST3	MSUs Discarded – LS On Hold Buffer Overflow - Number of MSUs discarded because the linkset-on-hold buffer was in overflow.	peg count
MSULOST4	MSUs Discarded – Rcv Queue Full - Number of MSUs discarded because the receive queue was full.	peg count
MSULOST5	MSUs Discarded – LIM Init - Number of MSUs discarded while the LIM card was initializing.	peg count
MSULOST6	MSUs Discarded - Number of MSUs discarded due to errors encountered during internal (IMT) transfer between cards.	peg count
MTPRESTS	MTP Restarts Initiated - Number of time MTP restart was initiated by the STP. The count does not include the number of times MTP restart was initiated as a result of messages from adjacent nodes.	peg count
OMSINVDPC	MSUs Originated – Invalid DPC - Number of MSUs originated with an invalid DPC.	peg count
ORIGMSUS	Originated MSUs - The total number of outgoing MSUs successfully passed to MTP level 2 for transmission, while carrying the STP point code in the OPC field.	peg count
OVSZMSG	Oversized MTP 3 Messages - Oversized MTP 3 messages exceeding 272 octets (level 3) that are received by an HSL and are discarded.	peg count
SCCPLOOP	The total number of times that a GTT translation matched a Point Code in the STP's loopset entries resulting in either a notify or discard of an SCCP message.	peg count

Measurements

Table 4-38. Maintenance Day-to-Hour STP Measurements (Continued)

Event Name	Description	Unit
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
THRSWMSU	Through-Switched MSUs -The total number of MSUs that did not carry the STP point code in the OPC or the DPC, and were successfully passed to MTP level 2 for transmission.	peg count
TRMDMSUS	Terminated MSUs - The total number of incoming MSUs carrying the STP point code in the DPC.	peg count
TTMAPPF	Translation Type Mapping Translations Performed - The total number of Translation Type Mapping translations performed (that is, a mapped SS7 message translation type was found for the existing SS7 message translation type).	peg count
XLXTELEI	X-List Entry not Created - The total number of times that an X-List entry was not created because the ELEI for the cluster was set to 'yes'.	peg count
XLXTSPACE	X-List Entry not Created - The total number of times an X-List entry was not created due to lack of space in the route/destination table.	peg count
MSUSCCPFLR	MSU SCCP Failure - Total MSUs Discarded Due to SCCP Conversion Failure.	peg count

OAM Example Output:

```
tekelecstp 07-01-02 15:51:37 EST EAGLE 35.6.0
TYPE OF REPORT: DAY-TO-HOUR MAINTENANCE MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL: 07-01-01, 00:00:00 THROUGH 23:59:59
```

STP-MTCDTH MEASUREMENTS

```
These measurements are from 07-01-01, 00:00:00 through 23:59:59.
ORIGMSUS = 36102314, TRMDMSUS = 0, THRSWMSU = 6055635,
MTPRESTS = 0, DTAMSULOST = 0, MSINVDPC = 1,
MSINVSIO = 0, OMSINVDPC = 0, MSINVLNK = 0,
MSINVSIF = 0, MSNACDPC = 1, MSINVSIC = 0,
GTTPERFD = 0, GTTUNONS = 0, GTTUNINT = 0,
MSSCCPFL = 0, MSUDSCRD = 0, MSULOST1 = 0,
MSULOST2 = 0, MSULOST3 = 0, MSULOST4 = 0,
MSULOST5 = 0, DRDCLFLR = 86400, DURLKOTG = 86400,
CRSYSAL = 288, MASYSAL = 600, MISYSAL = 960,
XLXTSPACE = 0, XLXTELEI = 0, TTMAPPF = 0,
OVSZMSG = 0, GFGTMATCH = 0, GFGTNOMCH = 0,
GFGTNOLKUP = 0, MSUSCCPFLR = 0, CCPLOOP = 3,
MSULOST6 = 0
```

```
;
tekelecstp 07-01-02 15:51:39 EST EAGLE5 35.6.0
END OF ON-DEMAND STP-MTCDTH MEASUREMENT REPORT
```


Measurements

Table 4-39. HSL LSL Differences for Maintenance Day-to-Hour Link Measurements (Continued)

Event Name	LSL Usage	HSL Usage
MSURCERR	As described	N/A - not reported
OCTRETRN	As described	N/A - not reported

Example Commands:

OAM: `rept-meas:type=mtcdth:enttype=link:loc=xxxx:link=x`

MP: `rept-ftp-meas:type=mtcdth:enttype=link`

Table 4-40. Maintenance Day-to-Hour Link Measurements

Event Name	Description	Unit
ACHGOVRS	Number of Automatic Changeovers - Number of times that a changeover procedure was used to divert traffic from one link to alternative links.	peg count
DRBSYLNK	Cumulative Duration of Busy Link Status- The total elapsed time between the receipt of a busy LSSU, and when the next message was acknowledged. This is the sum of all occurrences of busy link status.	seconds
DRDCLFLR	Cumulative Duration of Signaling Link Declared Failures All Types - The cumulative duration of all link failures.	seconds
DRFEPRO	Duration of Far-End Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the far-end network element (SIPO received).	seconds
DRLCLPRO	Duration of Local Processor Outage - The cumulative duration that a link was unavailable to MTP level 3 because of a processor outage at the near-end network element.	seconds
DRLKINHB	Duration Link Inhibited - The cumulative duration that a link was inhibited at the local or far-end network element.	seconds
ECCNGLV1	Event Count for Entering Level 1 Link Congestion - The total number of times that link congestion level 1 was entered.	peg count
ECCNGLV2	Event Count for Entering Level 2 Link Congestion - The total number of times that link congestion level 2 was entered.	peg count
ECCNGLV3	Event Count for Entering Level 3 Link Congestion - The total number of times that link congestion level 3 was entered.	peg count
FARMGINH	Number of Far-End Management Inhibits - Number of times a link was inhibited successfully from the far-end.	peg count
LNKAVAIL	Link Available Time - The total time the link was available to MTP level 3.	seconds

Table 4-40. Maintenance Day-to-Hour Link Measurements (Continued)

Event Name	Description	Unit
MSUDISC0	Priority 0 MSUs Discarded Due to Congestion - The total number of priority 0 MSUs discarded due to congestion (any level).	peg count
MSUDISC1	Priority 1 MSUs Discarded Due to Congestion - The total number of priority 1 MSUs discarded due to congestion (any level).	peg count
MSUDISC2	Priority 2 MSUs Discarded Due to Congestion - The total number of priority 2 MSUs discarded due to congestion (any level).	peg count
MSUDISC3	Priority 3 MSUs Discarded Due to Congestion - The total number of priority 3 MSUs discarded due to congestion (any level).	peg count
MSURCERR	Number of Signal Units Received In Error - Number of signal units received with checksum errors, indicating transmission errors.	peg count
MSURECVD	MSUs Received - Total number of MSUs received, including those for which retransmission has been requested.	peg count
MSURETRN	MSUs Retransmitted - Number of MSUs retransmitted because of errors.	peg count
MSUTRAN	MSUs Transmitted - Total number of MSUs transmitted to the far-end, including retransmissions.	peg count
NDCFLABN	Number of Signaling Unit Failures - Abnormal FIB/BSN - Number of times the signaling link was taken out-of-service because the STP received abnormal FIBs/BSNs. A count accumulates if two backward sequence number values in three consecutively received MSUs, or FISUs are not the same as the previous one, or any of the forward sequence numbers of the signal units in the retransmission buffer at the time they are retransmitted.	peg count
NDCFLXDA	Number of Signaling Link Failures - Excessive Delay of Acknowledgment - Number of times a signaling link was out-of-service due to an excessive delay in acknowledgments.	peg count
NDCFLXDC	Number of Signaling Link Failures - Excessive Duration of Congestion - Number of times a signaling link was out-of-service because the timer T6 (remote congestion) expired.	peg count
NDCFLXER	Number of Signaling Link Failures - Excessive Error Rate - Number of times a signaling link was out-of-service because it reached the signal unit error rate monitor (SUERM) threshold.	peg count
NEARMGIH	Number of Near-End Management Inhibits - Number of times a link was unavailable to MTP level 3 because it was locally inhibited.	peg count
NEGACKS	Number of Negative Acknowledgments Received - Number of times the BSN in an MSU was inverted, indicating a retransmission request.	peg count
NMLCLPRO	Number of Local Processor Outages - The total number of local processor outages in this STP.	peg count

Measurements

Table 4-40. Maintenance Day-to-Hour Link Measurements (Continued)

Event Name	Description	Unit
NMDCLFLR	Number of Signaling Link Declared Failures All Types- The cumulative total of all link failures.	peg count
NMFEPRO	Number of Far-End Processor Outages - Number of far-end processor outages that have occurred.	peg count
OCTRECVD	MSU Octets Received - Total number of octets associated with MSUs received, including those removed for MTP level 2 processing and those for which retransmission has been requested.	octets
OCTRETRN	The number MSU octets retransmitted	peg count
OCTTRAN	MSU Octets Transmitted - Total number of octets associated with MSUs transmitted to the far-end, including those added in MTP level 2 processing and retransmissions.	octets
PCRN1N2EXC	PCR N1 or N2 Count Exceeded - The total number of forced retransmissions when preventive cyclic retransmission (PCR) is used a the error correction method on a link.	peg count
SDURETRN	SSCOP SD PDUs Retransmitted - The number of SSCOP SD PDUs that were retransmitted, based on an accumulated count of such retransmissions conveyed to layer management. This measurement replaces the MTP level 2 negative acknowledgements.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
SURCVERR	Number of Signal Units Received In Error - Number of signal units received with checksum errors, indicating transmission errors.	peg count
TDCNGLV1	Total Duration of Level 1 Link Congestion - The total time the link was in level 1 congestion.	seconds
TDCNGLV2	Total Duration of Level 2 Link Congestion - The total time the link was in level 2 congestion.	seconds
TDCNGLV3	Total Duration of Level 3 Link Congestion - The total time the link was in level 3 congestion.	seconds
TLNKACTV	Signaling Link Active Time - The total time that the signaling link is in service and actively transmitting MSUs	seconds

OAM Example Output:

```
eagle10506 03-04-15 13:11:01 EST EAGLE 34.0.0
TYPE OF REPORT: DAY-TO-HOUR MAINTENANCE MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59

LINK-MTCDTH MEASUREMENTS: LOC: 1201, LINK: A , LSN: lsn123
```

Measurements

```
These measurements are from 03-04-15, 00:00:00 through 12:59:59.
MSUTRAN   =      95, MSURECVD   =      95, MSURETRN   =      0,
OCTRETRN  =      0, OCTTRAN   =     1900, OCTRECVD   =     1900,
TDCNGLV1  =      0, TDCNGLV2  =      0, TDCNGLV3  =      0,
ECCNGLV1  =      0, ECCNGLV2  =      0, ECCNGLV3  =      0,
MSUDISC0  =      0, MSUDISC1  =      0, MSUDISC2  =      0,
MSUDISC3  =      0, TLNKACTV  =      0, LNKAVAIL   =     3159,
ACHGOVRS  =      0, NEARMGIH  =      0, FARMGINH  =      0,
NMDCLFLR  =      0, DRDCLFLR  =      0, SURCVERR  =      0,
NEGACKS   =      0, DRLKINHB  =      0, NDCFLABN  =      0,
NDCFLXDA  =      0, NDCFLXER  =      0, NDCFLXDC  =      0,
NMFEPRO   =      0, NMLCLPRO  =      0, DRFEPRO   =      0,
DRLCLPRO  =      0, MSURCERR  =      0, DRBSYLNK  =      0,
PCRN1N2EXC =      0
;
eagle10506 03-04-15 13:11:02 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-MTCDTH MEASUREMENT REPORT
;
eagle10506 03-04-15 13:11:17 EST EAGLE 34.0.0
TYPE OF REPORT: DAY-TO-HOUR MAINTENANCE MEASUREMENTS ON LINK
REPORT PERIOD: LAST
REPORT INTERVAL: 03-04-15, 00:00:00 THROUGH 12:59:59

LINK-MTCDTH MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn123 (SAAL)

These measurements are from 03-04-15, 00:00:00 through 12:59:59.
MSUTRAN   =      0, MSURECVD   =      0, OCTTRAN   =      0,
OCTRECVD  =      0, TDCNGLV1  =      0, TDCNGLV2  =      0,
TDCNGLV3  =      0, ECCNGLV1  =      0, ECCNGLV2  =      0,
ECCNGLV3  =      0, MSUDISC0  =      0, MSUDISC1  =      0,
MSUDISC2  =      0, MSUDISC3  =      0, TLNKACTV  =      0,
LNKAVAIL  =      0, ACHGOVRS  =      0, NEARMGIH  =      0,
FARMGINH  =      0, NMDCLFLR  =      0, DRDCLFLR  =      0,
SURCVERR  =      0, DRLKINHB  =      0, NDCFLXDA  =      0,
NDCFLXER  =      0, NDCFLXDC  =      0, NMLCLPRO  =      0,
DRLCLPRO  =      0, SDURETRN  =      0
;
eagle10506 03-04-15 13:11:19 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-MTCDTH MEASUREMENT REPORT
;
```


enttype=lnkset

Example Commands:

OAM: rept-meas:type=mtcdth:enttype=lnkset:lsn=ayyyyyyy

MP: rept-ftp-meas:type=mtcdth:enttype=lnkset

Table 4-41. Maintenance Day-to-Hour Linkset Measurements

Event Name	Description	Unit
SCCPLOOP	The total number of times that a GTT translation matched a Point Code in the STP's loopset entries resulting in either a notify or discard of an SCCP message.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
ZTTMAPI	Translation Type Mapping Translation Incoming - The total number of Translation Type Mapping translations performed on incoming Message Signal Units (MSUs) for the specified linkset.	peg count
ZTTMAPO	Translation Type Mapping Translation Outgoing - The total number of Translation Type Mapping translations performed on outgoing Message Signal Units (MSUs) for the specified linkset.	peg count

OAM Example Output:

```
tekelecstp 07-01-02 12:01:47 EST EAGLE 35.6.0
TYPE OF REPORT: DAY-TO-HOUR MAINTENANCE MEASUREMENTS ON LINKSET
REPORT PERIOD: LAST
REPORT INTERVAL: 07-01-01, 00:00:00 THROUGH 11:59:59

LNKSET-MTCDTH MEASUREMENTS: ls1201a

These measurements are from 07-01-01, 00:00:00 through 11:59:59.
ZTTMAPO = 196611, ZTTMAPI = 3, SCCPLOOP = 5

;

tekelecstp 07-01-02 12:01:49 EST EAGLE 35.6.0
END OF ON-DEMAND LNKSET-MTCDTH MEASUREMENT REPORT

;
```

MP Example Output File Name: mtcnth-lnkset_20070101_1500.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "35.6.0-56.34.0", "2007-01-01", "15:51:37", "EST",
"DAY-TO-HOUR MAINTENANCE MEASUREMENTS ON LINKSET", "LAST",
"2007-01-01", "00:00:00", "15:00:00", 500<cr><lf>
<cr><lf>
```

Measurements

```
"STATUS", "LSN", "LNKTYPE", "ZTTMAPO", "ZTTMAPI", "SCCPLOOP" <cr><lf>
"K", "1s100", "SAAL", 196611, 3, 0 <cr><lf>
```

.

```
"K", "1s600", "MTP2", 123456, 98374, 0 <cr><lf>
```

Assuming each data line will be:

4 char status + 9 char LSN + 7 char LKNTYPE + 3*(6 char data) + 2 = 40 chars

For a report of 500 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	47	+	20000	=	20297 bytes

enttype=stplan

NOTE: The peg counts for STPLAN measurements have the possibility of rolling over during periods of high STPLAN message transmit and receive. On the measurement reports these measurements show up as negative numbers. This indicates STPLAN transmit and receive measurements have values greater than four gigabytes of data.

Example Commands:

OAM: `rept-meas:type=mtcdth:enttype=stplan`

MP: `rept-ftp-meas:type=mtcdth:enttype=stplan`

Table 4-42. Maintenance Day-to-Hour STPLAN Measurements

Event Name	Description	Unit
ENETALNERR	Ethernet Alignment Error - Number of packets not received over the STPLAN interface because of ethernet alignment errors.	peg count
ENETBUSBSY	Ethernet Bus Busy - Number of transmissions attempted when the STPLAN ethernet bus was busy.	peg count
ENETCOLERR	Ethernet Collision Error - Number of packets not transmitted by STPLAN because of excessive collisions on the STPLAN ethernet bus.	peg count
ENETCRCERR	Ethernet CRC Error - Number of packets not received on the STPLAN ethernet due to CRC errors.	peg count
ENETOCTRCV	Ethernet Octets Received - The total number of octets received on the STPLAN ethernet interface.	peg count
ENETOCTXMT	Ethernet Octets Transmitted - The total number of octets transmitted on the STPLAN ethernet interface.	peg count
ENETOVRERR	Ethernet Receive Buffer Overflow Errors - Number of packets not received by STPLAN because of a receive buffer overflow.	peg count

Table 4-42. Maintenance Day-to-Hour STPLAN Measurements (Continued)

Event Name	Description	Unit
IPADDRERR	IP Address Error - The total number of inbound IP datagrams discarded on the STPLAN interface due to a bad destination address.	peg count
IPHDRERR	IP Header Errors - The total number of inbound IP datagrams discarded on the STPLAN interface due to header errors.	peg count
IPROTERR	IP Protocol Error - Number of inbound IP datagrams discarded by STPLAN due to an error in the packet (invalid protocol).	peg count
SLANDISC1	STPLAN Discarded 1 - Number of indicated messages not copied to the host due to the STPLAN feature being disabled.	peg count
SLANDISC2	STPLAN Discarded 2 - Number of MSUs discarded due to the host being unreachable.	peg count
SLANDSBLD	STPLAN Disabled - The duration that the STPLAN screening/copy feature was disabled.	msecs
SLANSCRND	STPLAN Screened - Number of MSUs that were copied to the STPLAN interface after passing gateway screening.	peg count
SLANXMIT	STPLAN Transmit - Number of MSUs sent to the host destination.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
TCPCONNFLD	TCP Connections Failed - The total number of TCP connections that have failed on the STPLAN interface.	peg count
TCPRCVERR	TCP Receive Error - The total number of TCP segments received on the STPLAN interface in error.	peg count
TCPRSTSENT	TCP Reset Sent - The total number of TCP segments sent containing the reset (RST) flag on the STPLAN interface.	peg count
TCPSEGRCVD	TCP Segment Received - The total number of TCP segments received on the STPLAN interface.	peg count
TCPSEGSENT	TCP Segment Sent - The total number of TCP segments sent on the STPLAN interface.	peg count
TCPSEGXMT2	TCP Segment Retransmitted - The total number of TCP segments retransmitted on the STPLAN interface.	peg count

OAM Example Output:

```
tekelecstp 01-08-18 00:00:21 EST EAGLE 34.0.0
TYPE OF REPORT: DAY-TO-HOUR MAINTENANCE MEASUREMENTS ON STPLAN
REPORT PERIOD: LAST
```


Measurements

REPORT INTERVAL: 01-08-17 00:00:00 THRU 23:59:59

STPLAN-MTCD MEASUREMENTS

SLANDSBLD =	0,	SLANDISC1 =	0,	SLANDISC2 =	0,
SLANSCRND =	0,	SLANXMIT =	0,	ENETALNERR =	0,
ENETCRRCERR =	0,	ENETCOLERR =	0,	ENETBUSBSY =	0,
ENETOVRERR =	0,	ENETOCTXMT =	0,	ENETOCTRCV =	0,
TCPCONNFLD =	0,	TCPSEGRCDV =	0,	TCPSESENT =	0,
TCPSEGXMT2 =	0,	TCPRCVERR =	0,	TCPRSTSENT =	0,
IPHDRERR =	0,	IPADDRERR =	0,	IPPROTERR =	0

;

tekelecstp 01-08-18 00:00:22 EST EAGLE 34.0.0
 END OF ON-DEMAND STPLAN-MTCDTH MEASUREMENT REPORT

;

MP Example Output File Name: mtcnth-stplan_19990117_1500.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr> <lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"DAY-TO-HOUR MAINTENANCE MEASUREMENTS ON STPLAN", "LAST",
"1999-01-17", "00:00:00", "15:00:00", 1 <cr> <lf>
<cr> <lf>
"STATUS", "SLANDSBLD", "SLANDISC1", "SLANDISC2", "SLANSCRND", "SLANXMIT", "ENETALNERR",
"ENETCRRCERR", "ENETCOLERR", "ENETBUSBSY", "ENETOVRERR", "ENETOCTXMT", "ENETOCTRCV",
"TCPCONNFLD", "TCPSEGRCDV", "TCPSESENT", "TCPSEGXMT2", "TCPRCVERR", "TCPRSTSENT",
"IPHDRERR", "IPADDRERR", "IPPROTERR" <cr> <lf>
"K", 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 <cr> <lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	282	+	260	=	792 bytes

Hourly Maintenance Measurements

The Maintenance Hour (MTCH) report provides the value of various maintenance measurements accumulated during a specific hour.

Entity Types: : LNP, NP, EIR, and MAPSCRN

Accumulation Interval:

60 minutes

STP Retention Period: : 24 hours

Reporting Modes: : On-demand, Scheduled (MP only)

Accessible Collection Periods: : Last, Specific

enttype=lnp

The enttype=lnp entity generates four separate reports per period. These reports for OAM based measurements are generated to CSV files in the FTA. The command example will generate the following hourly reports:

- Hourly LNP System Wide Measurements
- Hourly LNP Measurements Per SSP
- Hourly LNP Measurements Per LRN
- Hourly LNP Measurements Per NPA

All the OAM reports are listed together as are the MP reports.

Example Commands:

OAM: **rept-meas:type=mtch:enttype=lnp:period=last**

MP: **rept-ftp-meas:type=mtch:enttype=lnp:period=last**

Table 4-43. Hourly Maintenance LNP System Wide Measurements

Event Name	Description	Unit
LNPQRCV	<i>Trigger Based</i> The total number of queries received by LNPQS.	peg count
	<i>Triggerless</i> Number of encapsulated IAM messages received by LNPQS	peg count
LNPQDSC	<i>Trigger Based</i> The number of invalid queries that are discarded because no reply can be generated.	peg count
	<i>Triggerless</i> All invalid IAM messages are routed without LNP; LNPQTCPE is pegged.	not applicable
LNPQTCPE	<i>Trigger Based</i> The number of error replies with TCAP error codes.	peg count
	<i>Triggerless</i> The number of invalid encapsulated IAM messages received by LNPQS. Note that these messages are routed to their destinations with no LNP lookup.	peg count
LNPSREP	<i>Trigger Based</i> The number of successful replies.	peg count
	<i>Triggerless</i> The number of successful IAM messages.	peg count

Measurements

Table 4-43. Hourly Maintenance LNP System Wide Measurements (Continued)

Event Name	Description	Unit
LNPQUNPA	<i>Trigger Based</i> The number of correct queries received for non-ported DN when NPA-NXX is not provisioned.	peg count
	<i>Triggerless</i> The number of correct encapsulated IAM messages received for a non-ported DN, when the NPA-NXX is not provisioned.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

Table 4-44. Hourly Maintenance LNP Per SSP Measurements

Event Name	Description	Unit
SSPQRCV	<i>Trigger Based</i> Number of correct queries received per originating SSP.	peg count
	<i>Triggerless</i> The number of correct encapsulated IAM messages received by LNPQS per OPC.	peg count
CLASSGTRQ	Number of valid CLASS GTT received per originating SSP.	peg count
LIDBGTRQ	Number of valid LIDB GTT received per originating SSP.	peg count
SSPQRCVP	Number of correct queries received for ported TNs, per originating SSP.	peg count
SSPQRCVNP	Number of correct queries received for non-ported TNs, per originating SSP.	peg count
CLASSGTRQP	Number of CLASS Global Title Translation received for ported TNs, per originating SSP.	peg count
CLASSGTRQNP	Number of CLASS Global Title Translation received for non-ported TNs, per originating SSP.	peg count
LIDBGTRQP	Number of LIDB Global Title Translation received for ported TNs, per originating SSP.	peg count
LIDBGTRQNP	Number of LIDB Global Title Translation received for non-ported TNs, per originating SSP.	peg count
CNAMGTRQP	Number of CNAM Global Title Translation received for ported TNs, per originating SSP.	peg count
CNAMGTRQNP	Number of CNAM Global Title Translation received for non-ported TNs, per originating SSP.	peg count
ISVMGTRQP	Number of ISVM Global Title Translation received for ported TNs, per originating SSP.	peg count

Table 4-44. Hourly Maintenance LNP Per SSP Measurements (Continued)

Event Name	Description	Unit
ISVMGTRQNP	Number of ISVM Global Title Translation received for non-ported TNs, per originating SSP.	peg count
WSMSCGTP	Number of WSMSC Global Title Translations received for ported TNs, per originating SSP	peg count
WSMSCGTNP	Number of WSMSC Global Title Translations received for non-ported TNs, per originating SSP	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

The following equations apply:

$$SSPQRCV = SSPQRCVP + SSPQRCVNP$$

$$CLASSGTRQ = CLASSGTRQP + CLASSGTRQNP$$

$$LIDBGTRQ = LIDBGTRQP + LIDBGTRQNP$$

Table 4-45. Hourly Maintenance LNP LRN Measurements

Event Name	Description	Unit
LRNQRCV	<i>Trigger Based</i> The number of correct queries received per LRN.	peg count
	<i>Triggerless</i> The number of correct encapsulated IAM messages received per LRN.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

Measurements

Table 4-46. Hourly Maintenance LNP NPA Measurements

Event Name	Description	Unit
NPAQRCV	The number of correct queries received per NPANXX for non-ported DN.	peg count
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status

OAM Reports

Hourly LNP System Wide Measurements

OAM Example Output File Name: M60_LNP.csv

OAM Example Output File Format:

```
"tekelecstp 01-08-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON LNP SYSTEM"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 01-08-02, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>
"LNPQRCV", "LNPQDSC", "LNPQTCPE", "LNPSREP", "LNPQUNPA"<cr><lf>
4294967295, 4294967295, 4294967295, 4294967295, 4294967295<cr><lf>
```

Hourly LNP Measurements Per SSP

OAM Example output File Name: M60_SSP.csv

OAM Example Output File Format:

```
"tekelecstp 99-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON LNP SSP"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 99-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
"NUMBER OF ENTIDS: 2"<cr><lf>
<cr><lf>
"SSP", "SSPQRCV", "CLASSGTRQ", "LIDBGTRQ", "SSPQRCVP", "SSPQRCVNP", "CLASSGTP",
"CLASSGTNP", "LIDBGTP", "LIDBGTPNP", "CNAMGTP", "CNAMGTNP", "ISVMGTP", "ISVMGTNP",
"WSMSCGTP", "WSMSCGTNP" <cr><lf>
"002-002-100", 123456789, 456789, 99999, 123456789, 456789, 99999,
123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
"002-002-123", 123456789, 456789, 99999, 123456789, 456789, 99999,
123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
```

Hourly LNP Measurements Per LRN

OAM Example Output File Name: M60_LRN.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON LNP LRN"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
```

```
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
"NUMBER OF ENTIDS: 6"<cr><lf>
<cr><lf>
"LRN", "LRNQRCV"<cr><lf>
9194560000,123456789<cr><lf>
4087550001,23456789<cr><lf>
5155550000,456789<cr><lf>
3022330001,345<cr><lf>
7032110002,99999<cr><lf>
8123048059,4294967295<cr><lf>
```

Hourly LNP Measurements Per NPA

OAM Example Output File Name: M60_NPA.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON LNP NPXNXX"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
"NUMBER OF ENTIDS: 6"<cr><lf>
<cr><lf>
"NPANXX", "NPAQRCV"<cr><lf>
919456,123456789<cr><lf>
408755,23456789<cr><lf>
515555,456789<cr><lf>
302233,345<cr><lf>
703211,99999<cr><lf>
812304,4294967295<cr><lf>
```

MP Reports

Hourly LNP System Wide Measurements

MP Example Output File Name: mtch-lnp_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"HOURLY MAINTENANCE MEASUREMENTS ON LNP SYSTEM", "LAST",
"1999-01-16", "00:00:00", "24:00:00", 1<cr><lf>
<cr><lf>
"STATUS", "LNPQRCV", "LNPQDSC", "LNPQTCPE", "LNPSREP", "LNPQUNPA"<cr><lf>
"K", 429496729, 429496729, 429496729, 429496729, 429496729<cr><lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	63	+	34	=	347 bytes

Hourly LNP Measurements Per SSP

MP Example Output File Name: mtch-ssp_19990116_2400.csv

Measurements

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RTPD", "IVALDATE", "IVALSTART", "I
VALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"HOURLY MAINTENANCE MEASUREMENTS ON LNP
SSP", "LAST", "1999-01-16", "00:00:00", "24:00:00", 200<cr><lf>
<cr><lf>
"STATUS", "SSP", "SSPQRCV", "CLASSGTRQ", "LIDBGTRQ", "SSPQRCVP", "SSPQRCVNP", "CLASSGTRQP
", "CLASSGTRQNP", "LIDBGTRQP", "LIDBGTRQNP", "CNAMGTRQP", "CNAMGTRQNP", "ISVMGTRQP",
"ISVMGTRQNP", "WSMSCGTP", "WSMSCGTPNP"<cr><lf>
"K", "002-002-100", 123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789,
99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
. . . . .
"K", "002-005-123", 123456789, 456789, 99999, 123456789, 456789, 99999, 123456789, 456789,
99999, 123456789, 456789, 99999, 123456789, 456789, 99999<cr><lf>
```

Assuming each data line will be:

4 char status + 14 char SSP + 15*(6 char data) + 2 = 110 chars

For a report of 200 SSPs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	160	+	22000	=	22410 bytes

Hourly LNP Measurements Per LRN

MP Example Output File Name: mtch-lrn_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"HOURLY MAINTENANCE MEASUREMENTS ON LNP
LRN", "LAST", "1999-01-16", "00:00:00", "24:00:00", 600<cr><lf>
<cr><lf>
"STATUS", "LRN", "LRNQRCV"<cr><lf>
"K", 9194560000, 123456789<cr><lf>
"K", 4087550001, 23456789<cr><lf>
"K", 5155550000, 456789<cr><lf>
. . . . .
"K", 3022330001, 345<cr><lf>
"K", 7032110002, 99999<cr><lf>
"K", 8123048059, 4294967295<cr><lf>
```

Assuming each data line will be:

4 char status + 11 char LRN + 6 char data + 2 = 23 chars

For a report of 600 LRNs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	27	+	13800	=	14077 bytes

Hourly LNP Measurements Per NPA

MP Example Output File Name: mtch-npa_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"HOURLY MAINTENANCE MEASUREMENTS ON LNP NPANXX", "LAST",
"1999-01-16", "00:00:00", "24:00:00", 600<cr><lf>
<cr><lf>
"STATUS", "NPANXX", "NPAQRCV"<cr><lf>
"K", 919456, 123456789<cr><lf>
"K", 408755, 23456789<cr><lf>
"K", 515555, 456789<cr><lf>
. . . . .
"K", 302233, 345<cr><lf>
"K", 703211, 99999<cr><lf>
"K", 812304, 4294967295<cr><lf>
```

Assuming each data line will be:

4 char status + 7 char NPANXX + 6 char data + 2 = 19 chars

For a report of 600 LRNs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	30	+	11400	=	11680 bytes

enttype=np

The enttype=np entity generates two separate reports per period. These reports for OAM based measurements are generated to CSV files in the FTA. The command example will generate the following daily reports:

- Hourly INP and G-Port System Wide Measurements
- Hourly INP and G-Port Measurements Per SSP

All the OAM reports are listed together as are the MP reports.

Example Commands:

OAM: **rept-meas:type=mtch:enttype=np**

MP: **rept-ftp-meas:type=mtch:enttype=np**

Measurements

Table 4-47. Hourly Maintenance INP and G-Port System Wide Measurements

Event Name	Description	Unit
INPQRCV	Number of total queries received by INPQS.	peg count
INPQDSC	Number of invalid queries that are discarded as no reply can be generated.	peg count
INPQTCPE	Number of error replies with TCAP error code.	peg count
INPSREP	Number of successful replies to INP non-queried queries. These replies will be either INP Connect or INP Continue.	peg count
GPSRRCV	Number of call related (SRI-Send Routing Information) messages received.	peg count
GPSRGTT	Number of call related (SRI-Send Routing Information) messages that fell through to GTT.	peg count
GPSRREP	Number of call related (SRI-Send Routing Information) messages that received G-Port service.	peg count
GPSRERR	Number of call related messages that cause an error response message (SRI-Send Routing Information NEGATIVE ACK).	peg count
GPNOCL	Number of non-call related messages relayed by G-Port.	peg count
GPNOCLGT	Number of non-call related messages that fell through to GTT.	peg count
IS41LRERR	Number of IS-41 location request - error response messages sent.	peg count
IS41LRMRCV	Number of IS-41 location request messages received.	peg count
IS41LRRTN	Number of IS-41 location request - return result messages sent.	peg count
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status

The following equations apply:

$$INPQRCV = INPQDSC + INPQTCPE + INPSREP$$

$$GPSRRCV = GPSRGTT + GPSRREP + GPSRERR$$

Table 4-48. Hourly Maintenance INP and G-Port Per SSP Measurements

Event Name	Description	Unit
INPQSCONN	Number of non-errored QS messages with QS Connect responses, per originating SSP.	peg count
INPQSCONT	Number of non-errored QS messages with QS Continue responses, per originating SSP.	peg count

Table 4-48. Hourly Maintenance INP and G-Port Per SSP Measurements

Event Name	Description	Unit
INPMRTR	Number of messages sent to MR service that receive MR translation, per originating SSP.	peg count
INPMRGTT	Number of messages sent to MR service that fall through to GTT, per originating SSP.	peg count
GPSRACK	Number of call related (SRI-Send Routing Information ACK) responses.	peg count
GPSRRLY	Number of call related (SRI-Send Routing Information) messages relayed.	peg count
GPNACL	Number of non-call related messages relayed by G-Port.	peg count
GPNACLGT	Number of non-call related messages that fell through to GTT.	peg count
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status

The following equation applies:

$$GPSRREP = \Sigma GPSRACK + \Sigma GPSRRLY$$

OAM Reports

Hourly INP and G-Port System Wide Measurements When INP=ON and GPORT=ON

OAM Example Output File Name: M60_NP.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON NP SYSTEM"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>

"INPQRCV", "INPQDSC", "INPQTCPE", "INPSREP", "GPSRRCV", "GPSRGTT", "GPSRREP",
"GPSRERR", "GPNACL", "GPNACLGT", "IS41LRERR", "IS41LRMRCV", "IS41LRRTN"<cr><lf>
4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295,
4294967295, 4294967295, 4294967295<cr><lf>
```

Hourly INP and G-Port Measurements Per SSP When INP=ON and GPORT=ON

OAM Example output File Name: M60_SSP.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON NP SSP"<cr><lf>
```

Measurements

```
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 97-01-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>

"INPQSCONN", "INPQSCONT", "INPMRTR", "INPMRGTT", "GPSRACK", "GPSRRLY", "GPNACL",
"GPNACLGT"<cr><lf>
4294967295, 429495, 4294967295, 429495, 4294967295, 429495, 4294967295, 429495<cr><lf>
```

MP

Hourly INP and G-Port System Wide Measurements When INP=ON and GPORT=ON

MP Example Output File Name: **mtch-np_19990116_2400.csv**

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"HOURLY MAINTENANCE MEASUREMENTS ON NP
SYSTEM", "LAST", "1999-01-16", "00:00:00", "24:00:00", 1<cr><lf>
<cr><lf>
"STATUS", "INPQRCV", "INPQDSC", "INPQTCPE", "INPSREP", "GPSRRCV", "GPSRGTT", "GPSRREP",
"GPSRERR", "GPNACL", "GPNACLGT", "IS41LRERR", "IS41LRMRCV", "IS41LRRTRN"<cr><lf>
"K", 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295,
4294967295, 4294967295, 4294967295<cr><lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	113	+	66	=	429 bytes

Hourly INP and G-Port Measurements Per SSP When INP=ON and GPORT=ON

MP Example Output File Name: **mtch-ssp_19990116_2400.csv**

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"HOURLY MAINTENANCE MEASUREMENTS ON NP
SSP", "LAST", "1999-01-16", "00:00:00", "24:00:00", 1<cr><lf>
<cr><lf>
"STATUS",
"INPQSCONN", "INPQSCONT", "INPMRTR", "INPMRGTT", "GPSRACK", "GPSRRLY", "GPNACL",
"GPNACLGT"<cr><lf>
"K", 4294967295, 429495, 4294967295, 429495, 4294967295, 429495, 4294967295, 429495<cr><lf>
>
```

Typical file size is:

$$\begin{array}{rcccccc} \text{System header} & + & \text{Report header} & + & \text{Report data} & = & \text{File Size} \\ 250 & + & 98 & + & 54 & = & 402 \text{ bytes} \end{array}$$

enttype=eir

The EIR measurements specify the entity type EIR, and generate one report per period. The commands are specified with yy as a two-number abbreviation for any hour of a 24-hour day (00 through 23 for the hours 0000 through 2300). The retention period for hourly measurement records is 24 hours.

Example Commands:

MP: `rept-ftp-meas:type=mtch:enttype=eir:[hh=yy:period=specific]`

Table 4-49 lists the EIR events and their descriptions.

Table 4-49. Hourly Maintenance EIR Measurements

Event Name	Description	Unit
IMEIRCV	Total number of MAP_CHECK_IMEI messages received	peg count
WHITEIMEI	Total number of searches that resulted in a match with a "white listed" IMEI	peg count
GRAYIMEI	Total number of searches that resulted in a match with a "gray listed" IMEI	peg count
BLACKIMEI	Total number of searches that resulted in a match with a "black listed" IMEI	peg count
BLKALIMEI	Total number of searches that resulted in a match with a "black listed" IMEI, but were allowed due to IMSI Check match	peg count
BLKNALIMEI	Total number of searches that resulted in a match with a "black listed" IMEI, and the IMSI in the database did not match the IMSI in the message	peg count
UNKNIMEI	Total number of searches that resulted in a match with an "unknown" IMEI	peg count
NOMTCHIMEI	Total number of searches that resulted in no match in the database. NOMTCHIMEI is pegged whenever an IMEI is not found in the database.	peg count

The following equation applies:

$$\text{IMEIRCV} = \text{WHITEIMEI} + \text{GRAYIMEI} + \text{UNKNIMEI}$$

MP Example Output File Name: `mtch-eir_20030818_2300.csv`

Measurements

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",  
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>  
"tekelecstp", "34.0.0-51.1.0", "2003-08-19", "15:51:37", "EST",  
"HOURLY MAINTENANCE MEASUREMENTS ON EIR SYSTEM", "LAST", "2003-08-18",  
"23:00:00", "24:00:00", 1 <cr><lf>  
<cr><lf>  
"IMEIRCV", "WHITEIMEI", "GRAYIMEI", "BLACKIMEI", "BLKALIMEI", "BLKNALIMEI", "UNKNIMEI", "  
NOMTCHIMEI" <cr><lf>  
4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295,  
4294967295 <cr><lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
256	+	95	+	89	=	440 bytes

enttype=mapscrn

The enttype=mapscrn entity generates two separate reports per period.

The reports for OAM based measurements are generated to CSV files in the FTA. The command example generates the following hourly OAM-based measurement reports when the GSM MAP Screening feature is activated:

- Hourly MAP Screening System Wide Measurements
- Hourly MAP Screening Measurements Per Server

The command example will generate the following hourly MP-based measurement reports when the GSM MAP/Enhanced GSM MAP Screening feature is activated:

- Hourly MAP Screening System Wide Measurements
- Hourly MAP Screening Measurements Per Path

All the OAM reports are listed together as are the MP reports.

NOTE: When MTP MAP Screening is enabled and on, the registers in Table 4-50 and Table 4-53 include the sum total of MTP-routed and GTT-routed messages for the particular event.

Example Commands:

OAM: **rept-meas:type=mtch:enttype=mapscrn**

MP: **rept-ftp-meas:type=mtch:enttype=mapscrn**

Table 4-50. Hourly Maintenance MAP Screening System Wide Measurements

Event Name	Description	Unit
MSCRNPASS	Total number of messages that Passed MAP screening	count
MSCRNRJNE	Total number of messages that got Rejected by MAP screening because an entry was not found in the MAP screening table (i.e. rejected as System wide MAP Opcode action is DISCARD)	count
MSCRNRJFP	Total number of messages that got Rejected by MAP screening due to forbidden parameters in the message.	count
MSCRNPAPF	Total number of messages that contained the forbidden parameter but were not rejected due to Screening action set as PASS.	count
MSCRNPANE	Total number of messages, where an entry was not found in the MAP screening table but the Message was not rejected as screening action was marked as PASS (i.e. not rejected as System wide MAP Opcode action is PASS)	count
MSCRNRJOP	Total number of message that got rejected as Message MAP Opcode was not found in the MAP Opcode table (system wide action - DISCARD for the non matching OPCODEs)	count
MSCRNDUP	Total number of messages that were selected by MAP Screening for the Duplicate screening action.	count
MSCRNFOR	Total number of messages that were selected by MAP Screening for the Forward screening action.	count
MSCRNDAD	Total number of messages that were selected by MAP Screening for the Duplicate and Discard screening action.	count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

Server Entity Identification information in Table 4-51 is used to identify which server the Maintenance MAP Screening Per Server Measurements are applicable.

Table 4-51. Server Entity Identification

Entity Name	Description
SERVER	The screened origination address of the calling party address (CGPA) assigned when the GSM MAP screen was entered.
NP	The screened number plan value (NPV) assigned to the server address when the GSM MAP screen was entered. This field is filled with the default identifier * if no value was assigned.
NAI	The screened nature of address value (NAIV) assigned to the server address when the GSM MAP screen was entered. This field is filled with the default identifier * if no value was assigned.

Table 4-51. Server Entity Identification (Continued)

Entity Name	Description
OPCODE	The operation code number assigned when the GSM MAP opcode was entered.
Measurements does not report entries created for a range of addresses.	

Server Path Entity Identification information in Table 4-52 is used to clarify the path the Maintenance MAP Screening Per Path Measurements are applicable.

Table 4-52. Path Entity Identification

Entity Name	Description
PATH	<p>The screened origination address of the calling party address (CGPA-NP-NAI), or a combination of screened destination address of the called party address (CDPA-NP-NAI) and the screened origination addresses assigned when the GSM MAP screen was entered.</p> <p>The possible fields within the path are delimited as follows to allow for efficient sorting:</p> <ul style="list-style-type: none"> When both the origination and destination addresses are present (as either single server entries or provisioned wildcard entries) the origination address is preceded by a carat (^) and the destination address is preceded by a "greater than" sign (>): ^CGPA-NP-NAI>CDPA-NP-NAI When only the origination address is present (occurs when the CDPA is a default wildcard) it is preceded by a "less than" sign (<): <CGPA-NP-NAI
CGPA	The calling party global title address assigned when the GSM MAP screen was entered. Any or all of the three fields (GTA, NP, NAI) can be filled with the identifier (*) if a wildcard value is assigned for that field. There is no default wildcard value for the CGPA.
CDPA	The called party global title address assigned when the GSM MAP screen was entered. Any or all of the three fields (GTA, NP, NAI) can be filled with the identifier (*) if a wildcard value is assigned for that field. If the CDPA value is not assigned, the default wildcard value, which is not printed, is assumed.
NP	The screened number plan value (NPV) assigned to the path address when the GSM MAP screen was entered. The identifier (*) is used to signify a wildcard NP.
NAI	The screened nature of address value (NAIV) assigned to the path address when the GSM MAP screen was entered. The identifier (*) is used to signify a wildcard NAI.
OPCODE	The operation code number assigned when the GSM MAP opcode was entered. The identifier (*) is used to signify a wildcard opcode.
<p>Measurements does not report entries created for a range of addresses. Measurements does not report default wildcard CDPA address in entries containing them. There can never be a default wildcard CGPA entry. All wildcard CGPA entries must be explicitly provisioned. There can never be an entry with only a CDPA path listed. The string formats were designed to allow efficient automated post processing of measurements reports. A brief note explaining the format is included in the report.</p>	

Table 4-53. Hourly Maintenance MAP Screening Per Server Measurements

Event Name	Description	Unit
MSCRNPASS	Total number of messages that Passed MAP screening	count
MSCRNRJFP	Total number of messages that got Rejected by MAP screening due to forbidden parameters in the message.	count
MSCRNDUP	Total number of messages per server that were selected by MAP Screening for the Duplicate screening action.	count
MSCRNFOR	Total number of messages per server that were selected by MAP Screening for the Forward screening action.	count
MSCRNDAD	Total number of messages per server that were selected by MAP Screening for the Duplicate screening action.	count
MSCRNPAPF	Total number of messages that contained the forbidden parameter but were not rejected due to Screening action set as PASS.	count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Reports

Hourly MAP Screening System Wide Measurements

OAM Example Output File Name: M60_MAP.csv

OAM Example Output File Format:

```
"tekelecstp 97-01-02 15:51:37 EST EAGLE 34.0.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON MAP Screening SYSTEM"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 00-04-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
<cr><lf>
"MSCRNPASS", "MSCRNRJNE", "MSCRNRJFP", "MSCRNPAPF", "MSCRNPANE", "MSCRNRJOP", "MSCRNDUP",
, "MSCRNFOR", "MSCRNDAD"<cr><lf>
4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295,
4294967295, 4294967295<cr><lf>
```

Hourly MAP Screening Measurements Per Server

OAM Example output File Name: M60_SERV.csv

OAM Example Output File Format:

```
"tekelecstp 00-04-02 15:51:37 EST EAGLE 34.0.0-30.9.0 "<cr><lf>
"TYPE OF REPORT: HOURLY MAINTENANCE MEASUREMENTS ON MAP Screening Server"<cr><lf>
"REPORT PERIOD: LAST"<cr><lf>
"REPORT INTERVAL: 00-04-01, 00:00:00 THROUGH 23:59:59 "<cr><lf>
"NUMBER OF ENTIDS: 2"<cr><lf>
<cr><lf>
```


Measurements

```
"SERVER-NP-NAI-OPCODE",  
"MSCRNPASS", "MSCRNRJFP", "MSCRNDUP", "MSCRNFOR", "MSCRNDAD", "MSCRNPAFP"<cr><lf>  
"123456789012345-0-0-0",  
1234567890,1234567890,1234567890,1234567890,1234567890,1234567890<cr><lf>  
"098765432154321-15-127-1",  
5555555555,6666666666,1234567890,1234567890,1234567890,1234567890<cr><lf>  
"919468-*-*255",  
1234567890,1234567890,1234567890,1234567890,1234567890,1234567890<cr><lf>
```

MP Reports

Hourly MAP Screening System Wide Measurements

MP Example Output File Name: mtch-map_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",  
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>  
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",  
"HOURLY MAINTENANCE MEASUREMENTS ON MAP SCREENING SYSTEM", "LAST",  
"1999-01-16", "00:00:00", "24:00:00", 1<cr><lf>  
<cr><lf>  
"STATUS", "MSCRNPASS", "MSCRNRJOP", "MSCRNRJNE", "MSCRNRJFP", "MSCRNPAFP", "MSCRNPANE", "  
MSCRNFOR", "MSCRNDUP", "MSCRNDAD"<cr><lf>  
"K", 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4294967295, 4  
294967295, 4294967295<cr><lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	116	+	60	=	426 bytes

Hourly MAP Screening Measurements Per Path

MP Example Output File Name: mtch-path_19990116_2400.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",  
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>  
"tekelecstp", "34.0.0-53.8.0", "1999-01-17", "15:51:37", "EST",  
"HOURLY MAINTENANCE MEASUREMENTS ON MAP SCREENING PATH", "LAST",  
"1999-01-16", "00:00:00", "24:00:00", 2<cr><lf>  
<cr><lf>  
For a path containing CGPA only, PATH-OPCODE = <CGPA-NP-NAI-OPCODE><cr><lf>  
For a path containing both CGPA and CDPA, PATH-OPCODE =  
<CGPA-NP-NAI><CDPA-NP-NAI-OPCODE>  
<cr><lf>  
"STATUS", "PATH-OPCODE", "MSCRNPASS", "MSCRNRJFP", "MSCRNFOR", "MSCRNDUP", "MSCRNDAD", "  
MSCRNPAPFP"<cr><lf>  
"K", "<123456789012345-0-0-0", 1234567890, 1234567890, 1234567890, 1234567890, 1234567890,  
0, 1234567890<cr><lf>  
"K", "<919468-*-*120", 1234567890, 1234567890, 1234567890, 1234567890, 1234567890, 12345  
67890<cr><lf>  
"K", "^919468-5-63>919575-12-100-25", 1234567890, 1234567890, 1234567890, 1234567890,  
1234567890, 1234567890<cr><lf>
```

```
"K", "^540992-14-45-125>919468-*-*-*", 1234567890, 1234567890, 1234567890, 1234567890,
1234567890, 1234567890<cr><lf>
```

Assuming each data line will be:

4 char status + 40 char PATH-OPCODE + 5*(6 char data) + 2 = 76 chars

For a report of 20 paths, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	244	+	1640	=	2134 bytes

Gateway Measurements

The GTWY measurement report collects and reports gateway-related data from the STP. The gateway related data collected for this report is the network management and global title translation load on the EAGLE 5 ISS, and the source of this load. The level and source of pass through TCAP traffic is also collected. The MTP cards measure this data which is reported when requested.

Entity Types: : STP, ORIGNI, ORIGNINC, LNKSET, LSDESTNI, LSORIGINI, and LSONISMT

Accumulation Interval: : 30 minutes

Optional MP Accumulation Interval: : Every 15 minutes

STP Retention Period: : 24 hours

Reporting Mode: : Scheduled, On-demand

Accessible Collection Period: : Last, Specific

enttype=stp

Example Commands:

OAM: **rept-meas:type=gtwy:enttype=stp**

MP: **rept-ftp-meas:type=gtwy:enttype=stp**

Table 4-54. Gateway STP Measurements

Event Name	Description	Unit
GTTPFDIC	Number of Global Title Translations (GTTs) performed on messages received from an interconnecting network.	peg count
MSUDSCRD	Number of MSUs discarded due to screening failure.	peg count
MSURJOPC	Number of MSUs rejected due to screening - disallowed OPC.	peg count
MSURJDPC	Number of MSUs rejected due to screening - disallowed DPC.	peg count

Measurements

Table 4-54. Gateway STP Measurements (Continued)

Event Name	Description	Unit
MSURJSIO	Number of MSUs rejected due to screening - invalid service information octet (SIO).	peg count
MSURJCPA	Number of MSUs rejected due to screening - invalid calling party address.	peg count
MSURJAPC	Number of subsystem prohibited (SSP) and subsystem allowed (SSA) MSUs rejected due to screening - invalid affected point code.	peg count
MSURJPCS	Number of subsystem status test (SST) MSUs rejected due to screening - invalid affected point code and SSN.	peg count
MSURJDST	Number of MTP-NM MSUs rejected due to screening - invalid affected destination field.	peg count
MSURJTT	Number of SCCP MSUs rejected due to screening - invalid translation type.	peg count
MSURJDSN	Number of SCCP MSUs rejected due to screening - disallowed DPC/SSN in called party address.	peg count
MSURJTFC	Number of transfer controlled (TFC) MSUs rejected due to screening - invalid affected destination field.	peg count
MSURJSRT	Number of signaling routeset test (SRST) MSUs rejected due to screening - invalid affected destination field.	peg count
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status
TTMAPPF	Number of translation type mapping translations performed. For example, a mapped SS7 message translation type was found for the existing SS7 message translation type.	peg count

OAM Example Output:

```

tekelecstp 03-12-19 12:51:24 EST EAGLE 34.0.0
TYPE OF REPORT: GATEWAY MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL: 03-12-19, 12:00:00 THROUGH 12:29:59

STP-GTWY MEASUREMENTS

These measurements are from 03-12-19, 12:00:00 through 12:29:59.
TTMAPPF = 0, GTTPFDIC = 0, MSUDSCRD = 0,
MSURJOPC = 0, MSURJDPC = 0, MSURJSIO = 0,
MSURJCPA = 0, MSURJAPC = 0, MSURJPCS = 0,
MSURJDST = 0, MSURJTT = 0, MSURJDSN = 0,
MSURJTFC = 0, MSURJSRT = 0

;

tekelecstp 03-12-19 12:51:26 EST EAGLE 34.0.0
END OF ON-DEMAND STP-GTWY MEASUREMENT REPORT
;

```

MP Example Output File Name: gtwy-stp_19990117_1530.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"GATEWAY MEASUREMENTS ON STP", "LAST", "1999-01-17", "15:00:00", "15:30:00", 1<cr><lf>
<cr><lf>
"STATUS", "TTMAPPF", "GTPFDIC", "MSUDSCRD", "MSURJOPC", "MSURJDPC", "MSURJSIO",
"MSURJCPA", "MSURJAPC", "MSURJPCS", "MSURJDST", "MSURJTT", "MSURJDSN", "MSURJTFC",
"MSURJSRT"<cr><lf>

"K", 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0<cr><lf>
```

Typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		164		90		504 bytes

enttype=origni

Example Commands:

OAM: **rept-meas:type=gtwy:enttype=origni:ni=200**

MP: **rept-ftp-meas:type=gtwy:enttype=origni**

Table 4-55. Gateway ORIGNI Measurements

Event Name	Description	Unit
GTPFDPC	Number of global title translations (GTTs) performed - result is a DPC of an interconnecting network.	peg count
GTTUNTT	Number of GTTs unable to perform on messages received from an interconnecting network - no translation table for the translation type.	peg count
GTPFDIC	Number of GTTs performed on messages received from an interconnecting network.	peg count
GTTUNADR	Number of GTTs unable to perform on messages received from an interconnecting network - no translation for this address.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Example Output:

```
tekelecstp 03-12-19 12:31:12 EST EAGLE 34.0.0
TYPE OF REPORT: GATEWAY MEASUREMENTS ON ORIGNI
```

Measurements

```
REPORT PERIOD: LAST
REPORT INTERVAL: 03-12-19, 12:00:00 THROUGH 12:29:59

ORIGNI-GTWY MEASUREMENTS: NI: 5

These measurements are from 03-12-19, 12:00:00 through 12:29:59.
GTTPFDPDPC = 0, GTTUNTT = 0, GTTPFDIC = 834033,
GTTUNADR = 834034

;

tekelecstp 03-12-19 12:31:13 EST EAGLE 34.0.0
END OF ON-DEMAND ORIGNI-GTWY MEASUREMENT REPORT

;
```

MP Example Output File Name: gtwy-origni_19990117_1530.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"GATEWAY MEASUREMENTS ON
ORIGNI", "LAST", "1999-01-17", "15:00:00", "15:30:00", 100<cr><lf>
<cr><lf>
"STATUS", "NI", "GTTPFDPDPC", "GTTUNTT", "GTTPFDIC", "GTTUNADR"<cr><lf>
"K", 100, 0, 0, 834033, 834034<cr><lf>

. . . . .

"K", 200, 0, 0, 834033, 834034<cr><lf>
```

Assuming each data line will be:

4 char status + 4 char NI + 4*(6 char data) + 2 = 34 chars

For a report of 100 NIs, typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	59	+	3400	=	3709 bytes

enttype=origninc

Example Commands:

OAM: **rept-meas:type=gtwy:enttype=origninc:ni=4:nc=200**

MP: **rept-ftp-meas:type=gtwy:enttype=origninc**

Table 4-56. Gateway ORIGININC Measurements

Event Name	Description	Unit
GTTPFDP	Number of global title translations (GTTs) performed - result is a DPC of an interconnecting network.	peg count
GTTUNTT	Number of GTTs unable to perform on messages received from an interconnecting network - no translation table for the translation type.	peg count
GTTPFDIC	Number of GTTs performed on messages received from an interconnecting network.	peg count
GTTUNADR	Number of GTTs unable to perform on messages received from an interconnecting network - no translation for this address.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Example Output:

```

tekelecstp 03-12-19 12:31:37 EST EAGLE 34.0.0
TYPE OF REPORT: GATEWAY MEASUREMENTS ON ORIGININC
REPORT PERIOD: LAST
REPORT INTERVAL: 03-12-19, 12:00:00 THROUGH 12:29:59

ORIGININC-GTWY MEASUREMENTS: NI: 5, NC: 5

These measurements are from 03-12-19, 12:00:00 through 12:29:59.
GTTPFDP = 0, GTTUNTT = 0, GTTPFDIC = 834033,
GTTUNADR = 834034

;

tekelecstp 03-12-19 12:31:38 EST EAGLE 34.0.0
END OF ON-DEMAND ORIGININC-GTWY MEASUREMENT REPORT
;

```

MP Example Output File Name: gtwy-originc_19990117_1530.csv

MP Example Output File Format:

```

"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"GATEWAY MEASUREMENTS ON
ORIGININC", "LAST", "1999-01-17", "15:00:00", "15:30:00", 100<cr><lf>
<cr><lf>
"STATUS", "NI", "NC", "GTTPFDP", "GTTUNTT", "GTTPFDIC", "GTTUNADR"<cr><lf>
"K", 4, 200, 0, 0, 834033, 834034<cr><lf>

. . . . .

"K", 25, 200, 0, 0, 834033, 834034<cr><lf>

```

Measurements

Assuming each data line will be:

4 char status + 4 char NI + 4 char NC + 4*(6 char data) + 2 = 38 chars

For a report of 100 NI/NCs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		64		3800		4114 bytes

enttype=lnkset

NOTE: The determination of which linksets are included in this report is controlled by the state of the `gtwylsfltr` field in the measurement control table. By default, only gateway linksets are included. This can be changed with the `chg-meas:gtwylsfltr={ both | stp | seas | none }` command. See the *Commands Manual* for details on using this command.

Example Commands:

OAM: `rept-meas:type=gtwy:enttype=lnkset:lsn=ls1201`

MP: `rept-ftp-meas:type=gtwy:enttype=lnkset`

Table 4-57. Gateway Linkset Measurements

Event Name	Description	Unit
TFPTRAN	The number of transfer prohibited (TFP) and transfer cluster prohibited (TCP) MSUs transmitted.	peg count
TFPRECD	The number of TFP and TCP MSUs received.	peg count
TFRTRAN	The number of transfer restricted (TFR) and transfer cluster restricted (TCR) MSUs transmitted.	peg count
TFRRECD	The number of TFR and TCR MSUs received.	peg count
TFATRAN	The number of transfer allowed (TFA) and transfer cluster allowed (TCA) MSUs transmitted.	peg count
TFARECD	The number of TFA and TCA MSUs received.	peg count
SRSTTRAN	The number of signaling routeset test (SRST) and cluster signaling routeset test (CSRST) MSUs transmitted.	peg count
SRSTRECD	The number of SRST and CSRST MSUs received.	peg count
SRSCTRAN	The number of signaling routeset congestion test (SRSCT) MSUs transmitted.	peg count
SRSTRCD	The number of SRSCT MSUs received.	peg count
TSTMTRCD	The number of testing and maintenance (T&M) MSUs received.	peg count
SSPTRAN	The number of subsystem prohibited (SSP) MSUs transmitted.	peg count
SSPRECD	The number of SSP MSUs received.	peg count

OAM Example Output:

```

tekelecstp 03-12-19 12:30:16 EST EAGLE 34.0.0
TYPE OF REPORT: GATEWAY MEASUREMENTS ON LSDESTNI
REPORT PERIOD: LAST
REPORT INTERVAL: 03-12-19, 12:00:00 THROUGH 12:29:59

LSDESTNI-GTWY MEASUREMENTS: LSN: ls1201, NI: 5

These measurements are from 03-12-19, 12:00:00 through 12:29:59.
MSURCVNA = 5040000, OCTRCVNA = 201600K, MSUTRNNA = 834033,
OCTTRNNA = 14757021, TFCGTRAN = 0

;

tekelecstp 03-12-19 12:30:18 EST EAGLE 34.0.0
END OF ON-DEMAND LSDESTNI-GTWY MEASUREMENT REPORT
;

```

MP Example Output File Name: gtwy-lsdestni_19990117_1530.csv

MP Example Output File Format:

```

"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"GATEWAY MEASUREMENTS ON
LSDESTNI", "LAST", "1999-01-17", "15:00:00", "15:30:00", 400<cr><lf>
<cr><lf>
"STATUS", "LSN", "LSTYPE", "NI", "MSURCVNA", "OCTRCVNA", "MSUTRNNA", "OCTTRNNA", "TFCGTRAN
"<cr><lf>
"K", "ls1201", "ANSI", 5, 5040000, 201600K, 834033, 14757021, 0<cr><lf>

. . . . .

"K", "lsitu", "ITU", , 5040000, 201600K, 834033, 14757021, 0<cr><lf>

```

Assuming each data line will be:

4 char status + 8 char LSN + 6 char LSTYPE + 4 char NI + 5*(6 char data) + 2 = 54 chars

For a report of 400 LSDESTNIs, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	86	+	21600	=	21936 bytes

enttype=lsorigni

NOTE: The determination of which linksets are included in this report is not controlled by the state of the gtwylsfltr field in the measurement control table. LSONISMT register MSUISPMT counts are rolled into the MSUDSCRD register. It is possible to have counts for MSUDSCRD, but no counts for any other registers in this report due to the MSUISPMT register count in the LSONISMT report.

The NI parameter is not part of the output for ITU GTWY linksets.

Measurements

Example Commands:

OAM: `rept-meas:type=gtwy:enttype=lsorigni:lsn=ls1201:ni=12`

MP: `rept-ftp-meas:type=gtwy:enttype=lsorigni`

Table 4-59. Gateway LSORGINI Measurements

Event Name	Description	Unit
TFCGRECD	The number of transfer controlled (TFC) MSUs received	peg count
MSURJOPC	The number of MSUs rejected due to screening - disallowed OPC.	peg count
MSURJDPC	The number of MSUs rejected due to screening - disallowed DPC.	peg count
MSURJCPA	The number of MSUs rejected due to screening - invalid calling party address.	peg count
MSURJAPC	The number of subsystem prohibited (SSP) and subsystem allowed (SSA) MSUs rejected due to screening - invalid affected point code.	peg count
MSURJPCS	The number of subsystem status test (SST) MSUs rejected due to screening - invalid affected point code and SSN.	peg count
MSURJHC	Number of MSUs discarded due to screening H0H1	peg count
MSURJTFC	The number of TFC MSUs rejected due to screening - invalid affected destination field.	peg count
MSURJSRT	The number of signaling routeset test (SRST) MSUs rejected due to screening - invalid affected destination field.	peg count
MSUDSCRD	The number of MSUs rejected due to screening failure.	peg count
MSURJSIO	The number of MSUs rejected due to screening - invalid service information octet (SIO).	peg count
MSURJDST	The number of MTP-NM MSUs rejected due to screening - invalid affected destination field.	peg count
MSURJTT	The number of SCCP MSUs rejected due to screening - invalid translation type.	peg count
MSURJDSN	The number of SCCP MSUs rejected due to screening - disallowed DPC/SSN.	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status

OAM Example Output:

```
tekelecstp 03-12-19 12:29:26 EST EAGLE 34.0.0
TYPE OF REPORT: GATEWAY MEASUREMENTS ON LSORIGNI
REPORT PERIOD: LAST
REPORT INTERVAL: 03-12-19, 11:30:00 THROUGH 11:59:59
```

LSORIGNI-GTWY MEASUREMENTS: LSN: ls1201, NI: 5

These measurements are from 03-12-19, 11:30:00 through 11:59:59.

```
TFCRECD      =          0, MSURJOPC      =      834033, MSURJDPC      =      834034,
MSURJCPA     =    14757021, MSURJAPC     =    14757039, MSURJPCS      =          0,
MSURJTFC     =          0, MSURJSRT      =          0, MSUDSCRD      =          0,
MSURJSIO     =          0, MSURJDST      =          0, MSURJTT       =          0,
MSURJDSN     =          0
```

;

```
tekelecstp 03-12-19 12:29:27 EST EAGLE 34.0.0
END OF ON-DEMAND LSORIGNI-GTWY MEASUREMENT REPORT
```

MP Example Output File Name: gtwy-lsorigni_19990117_1530.csv

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"GATEWAY MEASUREMENTS ON
LSORIGNI", "LAST", "1999-01-17", "15:00:00", "15:30:00", 400 <cr><lf>
<cr><lf>
"STATUS", "LSN", "LSTYPE", "NI", "TFCGRECD", "MSURJOPC", "MSURJDPC", "MSURJCPA", "MSURJAPC",
"MSURJPCS", "MSURJHC", "MSURJTFC", "MSURJSRT", "MSUDSCRD", "MSURJSIO", "MSURJDST",
"MSURJTT", "MSURJDSN" <cr><lf>
"K", "ls1201", "ANSI", 5, 0, 834033, 834034, 14757021, 14757039, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 <cr><lf>
. . . . .
"K", "lsitu", "ITU", , 0, 834033, 834034, 14757021, 14757039, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 <cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 6 char LSTYPE + 4 char NI + 14*(6 char data) + 2 = 108 chars

For a report of 400 LSORIGNIs, typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	173	+	43200	=	43623 bytes

enttype=lsonismt

NOTE: The determination of which linksets are included in this report is not controlled by the state of the gtwylsfltr field in the measurement control table. MSUISPMT counts are rolled into the MSUDSCRD register of the LSORIGNI and STP reports.

The NI parameter is not part of the output for ITU GTWY linksets.

Example Commands:

OAM: **rept-meas:type=gtwy:enttype=lsonismt:lsn=ls1201a:ni=43**

MP: **rept-ftp-meas:type=gtwy:enttype=lsonismt**

Measurements

Table 4-60. Gateway LSONISMT Measurements

Event Name	Description	Unit
MSUISPMT	Number of ISDNUP MSUs rejected due to screening -- invalid ISUP message type	peg count

OAM Example Output:

```
tekelecstp 03-12-19 12:29:26 EST EAGLE 34.0.0
TYPE OF REPORT: GATEWAY MEASUREMENTS ON LSONISMT
REPORT PERIOD: LAST
REPORT INTERVAL: 02-12-19, 12:00:00 THROUGH 12:29:59

LSONISMT-GTWY MEASUREMENTS: LSN: ls1201a, NI: 43, ISMT: 6

These measurements are from 02-12-19, 12:00:00 through 12:29:59.
MSUISPMT = 45397
```

;

```
LSONISMT-GTWY MEASUREMENTS: LSN: ls1201a, NI: 43, ISMT: 7

These measurements are from 02-12-19, 12:00:00 through 12:29:59.
MSUISPMT = 61423
```

;

```
tekelecstp 02-12-19 12:41:21 EST EAGLE 34.0.0
END OF ON-DEMAND LSONISMT-GTWY MEASUREMENT REPORT
```

;

MP Example Output File Name: gtwy-lsonismt_20021217_1530.csv

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "30.0.0-48.1.0", "2002-12-17", "15:51:37", "EST",
"GATEWAY MEASUREMENTS ON
LSONISMT", "LAST", "2002-12-17", "15:00:00", "15:30:00", 400<cr><lf>
<cr><lf>
"STATUS", "LSN", "LSTYPE", "NI", "ISMT", "MSUISPMT" <cr><lf>
"K", "ls1201", "ANSI", 5, 6, 34033<cr><lf>
. . . . .
"K", "lsitu", "ITU", , 7, 57021<cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 6 char LSTYPE + 4 char NI + 4 char ISMT + 1*(6 char data) + 2 = 34 chars

For a report of 400 LSONISMT, typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	49	+	13600	=	13899 bytes

Record Base Measurements

The RBASE measurements report various data related to the configuration or status of the EAGLE 5 ISS's major configurable components. The data in this measurement report is obtained from either the database or from maintenance tasks performed on the EAGLE 5 ISS. The data is not periodically collected and stored in the manner of other measurements data, but it is collected on demand when a RBASE measurement report is requested.

Entity Types: STP, Lnkset, and Link

Accumulation Interval: Snapshot

STP Retention Period: None

Reporting Mode: Scheduled-Polled (SEAS only), On-demand

Accessible Collection Period: Active

enttype=stp

Example Commands:

OAM: **rept-meas:type=rbase:enttype=stp**

MP: **rept-ftp-meas:type=rbase:enttype=stp**

Table 4-61. Record Base STP Measurements

Event Name	Description	Unit
BUSS	The number of IS-NR or IS-ANR IMT buses	peg count
CTSDFSST	The value of the SCCP Management: subsystem status test (SS7) delay timer (level 3 T32 timer). This value of this timer is fixed at 30 seconds and is not configurable.	seconds
LINKS	The number of configured signaling links.	peg count
LNKSETS	The number of configured linksets.	peg count
NT1TDCHO	The value of the delay to avoid mis-sequencing on changeover timer (level 3 T1 timer).	seconds
NT2CHOAK	The value of the waiting for changeover acknowledgment timer (level 3 T2 timer).	seconds
NT3TDCHB	The value of the delay to avoid mis-sequencing on changeback timer (level 3 T3 timer).	seconds
NT4CHBK1	The value of the waiting for changeover acknowledgment (first attempt) timer (level 3 T4 timer).	seconds
NT5CHBK2	The value of the waiting for changeover acknowledgment (second attempt) timer (level 3 T5 timer).	seconds
NT6TDCRR	The value of the delay to avoid mis-sequencing on controlled rerouting timer (level 3 T6 timer).	seconds
NT7SLKCN	The value of the waiting for signaling link connection acknowledgment timer (level 3 T7 timer).	seconds

Measurements

Table 4-61. Record Base STP Measurements (Continued)

Event Name	Description	Unit
NT8TRPRH	The value of the transfer prohibited inhibited timer (level 3 T8 timer).	seconds
NT10SRST	The value of the waiting to repeat signaling routeset test timer (level 3 T10 timer).	seconds
NT11TFRS	The value of the transfer restricted timer (level 3 T11 timer).	seconds
NT12UNAK	The value of the waiting for uninhibit timer (level 3 T12 timer).	seconds
NT13FUNH	The value of the waiting for force uninhibit timer (level 3 T13 timer).	seconds
NT14INAK	The value of the waiting for inhibition acknowledgment timer (level 3 T14 timer).	seconds
NT15RSCT	The value of the waiting for repeat signaling routeset congestion test timer (level 3 T15 timer).	seconds
NT16RSCS	The value of the waiting for routeset status update timer (level 3 T16 timer).	seconds
NT17REAL	The value of the delay to avoid oscillation of initial alignment failure and restart timer (level 3 T17 timer).	seconds
NT18TCLR	The value of the transfer cluster restricted interval timer (level 3 T18 timer).	seconds
NT19FLKR	The value of the failed link craft referral timer (level 3 T19 timer).	seconds
NT20RLIH	The value of the waiting to repeat local inhibit test timer (level 3 T20 timer).	seconds
NT21RRIH	The value of the waiting to repeat remote inhibit test timer (level 3 T21 timer).	seconds
NT22RSTL	The value of the restarting SP waiting for links to become available timer (level 3 T22 timer).	seconds
NT23WTRA	The value of the waiting after T22 to receive all TRAs timer (level 3 T23 timer).	seconds
NT24BTRA	The value of the restarting: waiting to broadcast all TRAs timer (level 3 T24 timer).	seconds
NT25WTRA	The value of the adjacent and restarting: waiting for TRA timer (level 3 T25 timer).	seconds
NT26RTRW	The value of the restarting: waiting to repeat TRW timer (level 3 T26 timer).	seconds
NT28WTRW	The value of the adjacent: waiting for TRW timer (level 3 T28 timer).	seconds
NT29RSUX	The value of the TRA sent, unexpected TRA, TRW, resumption timer (level 3 T29 timer).	seconds
NT30LMTF	The value of the limit TFPs/TFRs for unexpected TRAs/TRWs timer (level 3 T30 timer).	seconds
NT31FLCD	The value of the false link congestion detection timer (level 3 T31 timer).	seconds

Table 4-61. Record Base STP Measurements (Continued)

Event Name	Description	Unit
NT32OSCA	The value of the link oscillation filter - procedure A timer (level 3 T32 timer).	seconds
PROCS	The number of configured cards that are in service normal (IS-NR) or in-service abnormal (IS-ANR).	peg count
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
STLOOP	The value of the supervision timer for circular route detection test timer (the value of the mtpltst parameter of the chg-stpopts command).	seconds

OAM Example Output:

```
tekelecstp 03-12-11 10:18:36 EST EAGLE 34.0.0
TYPE OF REPORT: RECORD BASE MEASUREMENTS ON STP
REPORT PERIOD: ACTIVE
REPORT INTERVAL: 03-12-11, 10:18:36 THROUGH CURRENT
```

STP-RBASE MEASUREMENTS

```
PROCS      =      0, LNKSETS      =      0, LINKS      =      0,
BUSS       =      0, NT1TDCHO     =      0, NT2CHOAK     =      0,
NT3DCHB    =      0, NT4CHBK1    =      0, NT5CHBK2     =      0,
NT6DCRR    =      0, NT7SLKCN    =      0, NT8TRPRH     =      0,
NT10SRST   =      0, NT11TFRS   =      0, NT12UNAK     =      0,
NT13FUNH   =      0, NT14NAK     =      0, NT15RSCT     =      0,
NT16RSCS   =      0, NT17REAL    =      0, NT18TCLR     =      0,
NT19FLKR   =      0, NT20RLIH    =      0, NT21RRIH     =      0,
NT22RSTL   =      0, NT23WTRA    =      0, NT24BTRA     =      0,
NT25WTRA   =      0, NT26RTRW    =      0, NT28WTRW     =      0,
NT29RSUX   =      0, NT30LMTF    =      0, NT31FLCD     =      0,
NT32OSCA   =      0, STLOOP      =      0, CTSDLST     =      0
```

;

MP Example Output File Name: rbase-stp_19990117_1551.csv**Example Output File Format:**

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS"<cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"RECORD BASE MEASUREMENTS ON
STP", "ACTIVE", "1999-01-17", "15:51:32", "15:51:32", 1<cr><lf>
<cr><lf>
"STATUS", "PROCS", "LNKSETS", "LINKS", "BUSS", "NT1TDCHO", "NT2CHOAK", "NT3DCHB",
"NT4CHBK1", "NT5CHBK2", "NT6DCRR", "NT7SLKCN", "NT8TRPRH", "NT10SRST", "NT11TFRS",
"NT12UNAK", "NT13FUNH", "NT14NAK", "NT15RSCT", "NT16RSCS", "NT17REAL", "NT18TCLR",
"NT19FLKR", "NT20RLIH", "NT21RRIH", "NT22RSTL", "NT23WTRA", "NT24BTRA", "NT25WTRA",
"NT26RTRW", "NT28WTRW", "NT29RSUX", "NT30LMTF", "NT31FLCD", "NT32OSCA", "STLOOP",
"CTSDLST"<cr><lf>
```



```
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"RECORD BASE MEASUREMENTS ON
LINKSET", "ACTIVE", "1999-01-17", "15:51:32", "15:51:32", 120<cr><lf>
<cr><lf>
"STATUS", "LSN", "LNKTYPE", "LINKS", "RCLKBFRS", "ST01SLTA", "ST02SLTI" <cr><lf>
"K", "1s1201", "SAAL", 4, 3, 0, 0<cr><lf>

. . . . .

"K", "1s5204", "MTP2", 6, 2, 0, 0<cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LNKTYPE + 4*(6 char data) + 2 = 45 chars

For a report of 600 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		67		27000		= 27317 bytes

enttype=link

Example Commands:

OAM: **rept-meas:type=rbase:enttype=link:loc=1201:link=a**

MP: **rept-ftp-meas:type=rbase:enttype=link**

Table 4-63. Record Base Link Measurements

Event Name	Description	Unit
CNGONTH1	The level 1 congestion onset threshold for link transmit buffers	octets
CNGDITH1	The level 1 congestion discard threshold for link transmit buffers	octets
CNGABTH1	The level 1 congestion abatement threshold for link transmit buffers	octets
CNGONTH2	The level 2 congestion onset threshold for link transmit buffers	octets
CNGDITH2	The level 2 congestion discard threshold for link transmit buffers	octets
CNGABTH2	The level 2 congestion abatement threshold for link transmit buffers	octets
CNGONTH3	The level 3 congestion onset threshold for link transmit buffers	octets
CNGDITH3	The level 3 congestion discard threshold for link transmit buffers	octets
CNGABTH3	The level 3 congestion abatement threshold for link transmit buffers	octets

Measurements

Table 4-63. Record Base Link Measurements (Continued)

Event Name	Description	Unit
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
The following registers are applicable to MTP level 2 links ONLY. These registers are omitted from reports for ATM based links on EAGLE 5 ISS HMI output. On SEAS reports these registers are reported as ZERO-valued.		
LT1ALNRD	The value of the aligned/ready timer (level 2 T1 timer).	seconds
LT2NOALN	The value of the not aligned timer (level 2 T2 timer).	seconds
LT3ALIND	The value of the aligned timer (level 2 T3 timer).	seconds
LT4NMLPV	The value of the proving period (normal) timer (level 2 T4npp timer).	seconds
LT4EMGPV	The value of the proving period (emergency) timer (level 2 T4epp timer).	seconds
LT5SDSIB	The value of the sending SIB timer (level 2 T5 timer).	seconds
LT6RMCNG	The value of the remote congestion timer (level 2 T6 timer).	seconds
LT7XDLAK	The value of the excessive delay of acknowledgment timer (level 2 T7 timer).	seconds

OAM Example Output:

```
eagle10706 03-06-16 02:44:58 EST EAGLE 34.0.0
TYPE OF REPORT: RECORD BASE MEASUREMENTS ON LINK
REPORT PERIOD: ACTIVE
REPORT INTERVAL: 03-06-16, 02:44:58 THROUGH CURRENT
```

LINK-RBASE MEASUREMENTS FOR LINKSET lsn4:

```
eagle10706 03-06-16 02:45:00 EST EAGLE 34.0.0
LINK-RBASE MEASUREMENTS: LOC: 1202, LINK: B , LSN: lsn4
```

```
CNGONTH1 = 80, CNGDITH1 = 99, CNGABTH1 = 60,
CNGONTH2 = 101, CNGDITH2 = 109, CNGABTH2 = 81,
CNGONTH3 = 111, CNGDITH3 = 120, CNGABTH3 = 101,
LT1ALNRD = 5, LT2NOALN = 30, LT3ALIND = 5,
LT4NMLPV = 2.3, LT4EMGPV = 0.6, LT5SDSIB = 0.5,
LT6RMCNG = 4, LT7XDLAK = 1.5
```

;

```
eagle10706 03-06-16 02:45:00 EST EAGLE 34.0.0
LINK-RBASE MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn4 (SAAL)
```

```
CNGONTH1 = 930, CNGDITH1 = 2490, CNGABTH1 = 780,
CNGONTH2 = 2790, CNGDITH2 = 4350, CNGABTH2 = 2640,
CNGONTH3 = 4560, CNGDITH3 = 5250, CNGABTH3 = 4500
```

;

```
eagle10706 03-06-16 02:45:01 EST EAGLE 34.0.0
```

END OF ON-DEMAND LINK-RBASE MEASUREMENT REPORT

MP Example Output File Name: rbase-link_19990117_1551.csv

MP Example Output File Format:

```
"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"RECORD BASE MEASUREMENTS ON
LINK", "ACTIVE", "1999-01-17", "15:51:32", "15:51:32", 120 <cr><lf>
<cr><lf>
"STATUS", "LSN", "LOC", "LINK", "LNKTYPE", "CNGONTH1", "CNGDITH1", "CNGABTH1", "CNGONTH2",
"CNGDITH2", "CNGABTH2", "CNGONTH3", "CNGDITH3", "CNGABTH3", "LT1ALNRD", "LT2NOALN",
"LT3ALIND", "LT4NMLPV", "LT4EMGPV", "LT5SDSIB", "LT6RMCNG", "LT7XDLAK" <cr><lf>
"K", "l1sn4", "1202", "B2", "MTP2", 80, 99, 60, 101, 109, 81, 111, 120, 101, 5, 30, 5, 2.3, 0.6, 0.5, 4
, 1.5 <cr><lf>
```

.

```
"K", "l1sn4403", "1204", "A", "SAAL", 930, 2490, 780, 2790, 4350, 2640, 4560, 5250, 4500,
0, 0, 0, 0, 0, 0, 0, 0 <cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LOC + 5 char PORT + 7 char LNKTYPE + 17*(6 char data) + 2 = 135 chars

For a report of 600 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	226	+	81000	=	81476 bytes

Maintenance Status Reports

The Maintenance Status (MTCS) report is a snapshot of the maintenance status indicators. It supports entity types LINK and LNKSET. The report is available through the EAGLE 5 ISS terminal interface and through the SEAS interface via the OAP.

Entity Types: : Lnkset and Link

Accumulation Interval: : Snapshot

STP Retention Period: : None

Reporting Mode: : On-demand (EAGLE 5 ISS/SEAS)

Accessible Collection Period: : Active (snapshot)

enttype=link

Example Commands:

OAM: **rept-meas:type=mtcs:enttype=link:loc=1201:link=a**

Measurements

MP: rept-ftp-meas:type=mtcs:enttype=link

Table 4-64. Maintenance Status Link Measurements

Event Name	Description	Unit
LKMTTCST	Maintenance State	<p>ACT – link primary state is IS-NR and is or can be used to carry traffic.</p> <p>UNAV - link has been made unavailable by local or centralized maintenance personnel (inhibited or canceled link or active local processor outage).</p> <p>OOS – link out-of-service but can be made available by the STP.</p>
PROSTAT	Indication of processor outage status units being received.	<p>Y – link failure reason of remote processor outage exists.</p> <p>N - link failure reason of remote processor outage does not exist.</p>
PROTRAN	Indication of processor outage status units being transmitted.	<p>Y – link failure reason of local processor outage exists.</p> <p>N - link failure reason of local processor outage does not exist.</p>
MGMTINHB	Indication of link management inhibit status	<p>L (Local) - link is deactivated or inhibited or link failure reason of local processor outage exists.</p> <p>R (remote) - link failure reason of remote processor outage exists or remote management initiated exists.</p> <p>B (Both) –both local and remove failure reasons exist.</p> <p>N (Not/Neither) no local or remote failure reasons exists.</p>
CGSTLEVL	Current link transmit congestion level	<p>Congestion level:</p> <p>0 – no link congestion</p> <p>1, 2, or 3 - link congestion level exists.</p>
CGSTSTAT	Current link transmit congestion state	<p>N – none (congestion level 0)</p> <p>O – onset (congestion level 1, 2, or 3)</p>

Table 4-64. Maintenance Status Link Measurements (Continued)

Event Name	Description	Unit
STATUS	Indication of Data Validity K – indicates good data I – indicates incomplete interval; N – indicates data not current.	status
DCLRFAIL	Indication of link declared failure state (last known cause)	<p>N – not failed. LSL: Link is available to send and receive MSUs (in-service normal state). HSL: Same</p> <p>ABN – link failed due to receiving too many abnormal FIBR/BNSR. LSL: Link received 2 out of 3 invalid BSNs. Link received 2 out of 3 invalid FIBs. HSL: N/A</p> <p>XDA – Excessive delay of acknowledgment LSL: MSU not acknowledged within level 2 -T7 timer expiration. T7 configurable between .5 and 2.0 seconds. HSL: Timer no response or timer no credit expired.</p> <p>XER – Excessive error rate. Received 64 out of 256 signaling units in error. LSL: Signaling Unit Error Rate Monitor HSL: Signaling Unit-Error-Rate-Monitor threshold exceeded.</p> <p>XDC – Excessive duration of congestion LSL: Level-2 T6 timed-out HSL: N/A.</p> <p>APF – alignment/proving failure LSL: Link not aligned. Link state control aligned not ready or aligned ready timeout (T1), initial alignment control timeout (T2,T3), initial alignment control abort proving – maximum proving period, or initial alignment control received SIOS. HSL: N/A.</p>

OAM Example Output:

```
eagle10706 99-06-16 02:44:58 EST EAGLE 34.0.0
TYPE OF REPORT: MTCS MEASUREMENTS ON LINK
```

Measurements

```

REPORT PERIOD: ACTIVE
REPORT INTERVAL: 99-06-16, 02:44:58 THROUGH CURRENT

LINK-MTCS MEASUREMENTS FOR LINKSET lsn4:

eagle10706 99-06-16 02:45:00 EST EAGLE 34.0.0
LINK-MTCS MEASUREMENTS: LOC: 1202, LINK: B , LSN: lsn4

LKMT CST =          ACT, PROSTAT =          N, PROTRAN =          N,
DCLRFAIL =          N, MGMTINHB =          N, CGSTLEVL =          O,
CGSTSTAT =          N
;

eagle10706 99-06-16 02:45:00 EST EAGLE 34.0.0
LINK-MTCS MEASUREMENTS: LOC: 1204, LINK: A , LSN: lsn4      (SAAL)

LKMT CST =          UNAV, PROSTAT =          N, PROTRAN =          Y,
DCLRFAIL =          MMR, MGMTINHB =          L, CGSTLEVL =          O,
CGSTSTAT =          N
;

eagle10706 99-06-16 02:45:01 EST EAGLE 34.0.0
END OF ON-DEMAND LINK-MTCS MEASUREMENT REPORT
;

```

MP Example Output File Name: mtcs-link_19990117_1551.csv

```

CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"MAINTENANCE STATUS INDICATORS ON LINK", "ACTIVE", "1999-01-17", "15:51:32",
"15:51:32", 120 <cr><lf>
<cr><lf>
"STATUS", "LSN", "LOC", "LINK", "LNKTYPE", "LKMT CST", "PROSTAT", "PROTRAN", "DCLRFAIL",
"MGMTINHB", "CGSTLEVL", "CGSTSTAT" <cr><lf>
"K", "lsn4", "1202", "B2", "MTP2", "ACT", "N", "N", "N", "N", "O", "N" <cr><lf>
. . . . .
"K", "lsn4403", "1204", "A", "SAAL", "UNAV", "N", "Y", "MMR", "L", "O", "N" <cr>
<lf>

```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LOC + 5 char LINK + 7 char LNKTYPE +
7*(6 char data) + 2 = 75 chars

For a report of 600 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250		113		45000		45363 bytes

enttype=lnkset

Example Commands:

OAM: **rept-meas:type=mtcs:enttype=lnkset:lsn=ls1201**

MP: **rept-ftp-meas:type=mtcs:enttype=lnkset**

Table 4-65. Maintenance Status Linkset Measurements

Event Name	Description	Unit
LKMTCST	Maintenance State	<p>ACT – link primary state is IS-NR and is or can be used to carry traffic.</p> <p>UNAV - link has been made unavailable by local or centralized maintenance personnel (inhibited or canceled link or active local processor outage).</p> <p>OOS – link out-of-service but can be made available by the STP.</p>
ACTLINKS	Number of currently active links.	Number of links in the IS-NR (ACT) state.
UAVLINKS	Number of links in the unavailable maintenance state.	Number of links in the OOS-MT-DSBLD (UNAV) state.
OOSLINKS	Number of out-of-service links	Number of links in a maintenance state other than IS-NR and OOS-MT-DSBLD.
STATUS	<p>Indication of Data Validity</p> <p>K – indicates good data</p> <p>I – indicates incomplete interval;</p> <p>N – indicates data not current.</p>	status

OAM Example output:

```

tekelecstp 03-12-19 13:35:08 EST EAGLE 34.0.0
TYPE OF REPORT: MTCS MEASUREMENTS ON LINKSET
REPORT PERIOD: ACTIVE
REPORT INTERVAL: 03-12-19, 13:00:00 THROUGH CURRENT

LINKSET-MTCS MEASUREMENTS: ls1201

These measurements are from 03-12-19, 13:00:00 through 13:29:59.
LSMTCST = ACT, ACTLINKS = 1, UAVLINKS = 1,
OOSLINKS = 0,
;

tekelecstp 03-12-19 13:35:10 EST EAGLE 34.0.0
END OF ON-DEMAND LINKSET-MTCS MEASUREMENT REPORT
;

```

MP Example Output File Name: mtcs-lnkset_19990117_1551.csv

MP Example Output File Format:

```

"CLLI", "SWREL", "RPTDATE", "RPTIME", "TZ", "RPTTYPE", "RPTPD", "IVALDATE",
"IVALSTART", "IVALEND", "NUMENTIDS" <cr><lf>
"tekelecstp", "34.0.0-39.1.0", "1999-01-17", "15:51:37", "EST",
"MAINTENANCE STATUS INDICATORS ON LINKSET", "ACTIVE", "1999-01-17", "15:51:32",

```


Measurements

```
"15:51:32",120<cr><lf>
<cr><lf>
"STATUS","LSN","LNKTYPE","LSMTCST","ACTLINKS","UAVLINKS","OOSLINKS"<cr><lf>
"K","lsn4","SAAL","'ACT'",1,1,0<cr><lf>
. . . . .
"K","lsn120","MTP2","'ACT'",4,1,1<cr><lf>
```

Assuming each data line will be:

4 char status + 8 char LSN + 7 char LNKTYPE + 4*(6 char data) + 2 = 45 chars

For a report of 600 linksets, the typical file size is:

System header	+	Report header	+	Report data	=	File Size
250	+	69	+	27000	=	27319 bytes



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Introduction

This appendix explains how to remove a card from the EAGLE 5 ISS. There are two parts to this appendix. The first part describes the administrative commands required to take a card out of service and place it back into service. The second part explains how to physically remove a card from the card shelf.

Always wear a wrist strap or other electrostatic protection when handling Eagle cards.

Always place removed cards into an electrostatic protection bag before sending to Tekelec, or storing in inventory (unless the card is being stored in the optional spare card storage shelf).

Administrative Procedures

This section describes the administrative procedures that should be followed whenever replace an EAGLE 5 ISS card is replaced. The procedures are divided by card type.

In the event a numbered event message is encountered, refer to the appropriate procedure in Chapter 3, *Corrective Maintenance*.

Additional information about each command can be found in the *Commands Manual*.

Maintenance Disk and Alarm (MDAL) Card Replacement

Description

The MDAL (Figure A-1) provides a dry contact closure for external alarm indicators, such as bells, horns and lamp indicators. The MDAL also contains the removable cartridge drive.

Procedure - MDAL Card Replacement

- 1 Verify the removable cartridge is not in the removable cartridge drive. Remove the cartridge if necessary.

Reference: Chapter 2, *Preventive Maintenance*, section Removable Cartridge Handling Procedures on page 2-15 .

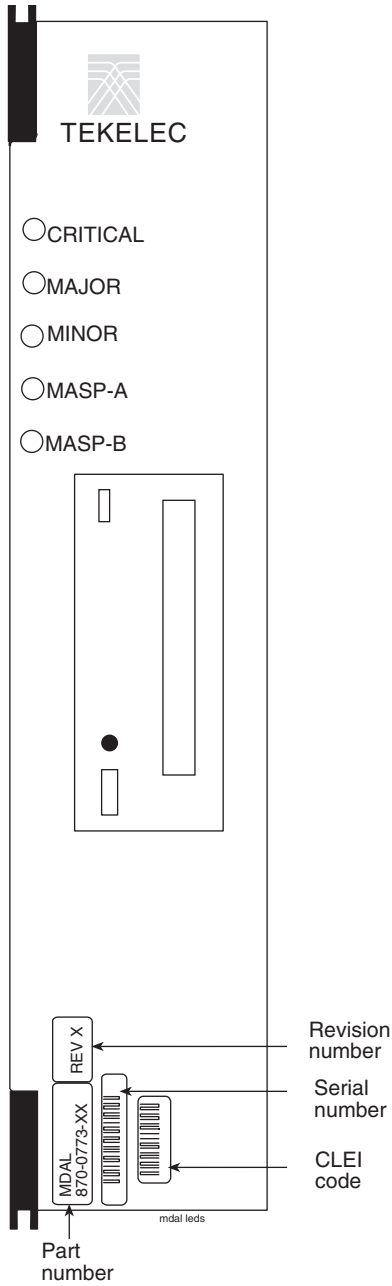
- 2 Remove the card from service as described in the section titled, "Replacing a Card," on Page A-52.

NOTE: Removing the MDAL creates a critical alarm at the Remote Maintenance Center (RMC) as well as the local office.

Card Removal/Replacement Procedures

MDAL Maintenance Disk and Alarm Card

Figure A-1.MDAL LEDs



LEDs	Descriptions
CRITICAL	RED - Critical alarm condition detected GREEN - No alarm
MAJOR	RED - Major alarm condition detected GREEN - No alarm
MINOR	AMBER - Minor alarm condition detected GREEN - No alarm
MASP-A	GREEN - MASP-A is the active MASP OFF - MASP-A is the standby MASP or is not present
MASP-B	GREEN - MASP-B is the active MASP OFF - MASP-B is the standby MASP or is not present

General Purpose Service Module (GPSM-II) Card Replacement

Description

The GPSM-II (Figure A-2) contains the communication processor and applications processor for the operations, administration, and maintenance (OAM) software and provides connections to the IMT bus

The GPSM-II is a member of the EDCM/EDCM-A card family. The GPSM-II is based on the single-slot EDCM/EDMC-A card with the addition of a one GByte expansion memory (UD1G) module.

Procedure - GPSM-II Card Replacement

- 1 If the active GPSM-II card fails, the EAGLE 5 ISS automatically switches activity to the standby MASP.
-

- 2 Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

The following is an example of the possible output.

```

RLGHNCXA03W 98-01-01 16:02:08 EST EAGLE 34.0.0
TRM  TYPE  COMM      FC  TMOUT MXINV DURAL
1    VT320  9600-7-E-1 SW   60   5    99:59:59
2    VT320  9600-7-E-1 BOTH 60   5    INDEF
3    KSR    9600-7-E-1 SW   60   0    00:00:00
4    NONE   9600-7-E-1 SW   60   5    00:30:00
5    NONE   9600-7-E-1 SW   60   5    00:00:30
6    SEAS   19200-7-E-1 SW   0    5    INDEF
7    VT320  9600-7-E-1 SW   60   5    99:59:59
8    VT320  9600-7-E-1 SW   60   5    INDEF
9    VT320  9600-7-E-1 SW   60   0    00:00:00
10   VT320  9600-7-E-1 SW   60   5    00:30:00
11   VT320  9600-7-E-1 NONE 60   5    00:00:30
12   NONE   19200-7-E-1 SW   0    5    INDEF
13   VT320  9600-7-E-1 SW   60   5    99:59:59
14   VT320  9600-7-E-1 SW   60   5    INDEF
15   VT320  9600-7-E-1 SW   60   0    00:00:00
16   VT320  9600-7-E-1 SW   60   5    00:30:00

```

```

                                LNP LNP
TRM  TRAF LINK SA  SYS PU  DB  DB  SUB
1    YES YES  YES YES YES YES YES YES
2    YES YES  YES YES YES YES YES YES
3    YES YES  YES YES YES YES YES YES
4    YES YES  YES YES YES YES YES YES
5    YES YES  YES YES YES YES YES YES
6    YES YES  YES YES YES YES YES YES
7    YES YES  YES YES YES YES YES YES
8    YES YES  YES YES YES YES YES YES
9    YES YES  YES YES YES YES YES YES
10   YES YES  YES YES YES YES YES YES
11   YES YES  YES YES YES YES YES YES
12   YES YES  YES YES YES YES YES YES
13   YES YES  YES YES YES YES YES YES
14   YES YES  YES YES YES YES YES YES
15   YES YES  YES YES YES YES YES YES

```

Card Removal/Replacement Procedures

```
16  YES  YES  YES YES YES YES YES YES  
Command Completed
```

- 3 If your system has the LNP feature, enter the following command to inhibit each OAP terminal displayed in the output from Step 2:

```
inh-trm:trm=x
```

where x is the terminal number.

- 4 Enter the following command to ensure no OAP updates are inadvertently sent to the database as you continue this procedure:

```
chg-term:trm=x:type=none
```

- 5 Remove the card from service as described in the section titled, "Replacing a Card," on Page A-52.
-

- 6 Enter the following command to change the state of the appropriate card to the out of service - maintenance disabled state:

```
inh-card:loc=xxxx:force=yes
```

where xxxx is the card location stenciled on the shelf of the EAGLE 5 ISS.

Following is an example of the output:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0  
Card has been inhibited.
```

- 7 Enter the following command to load the approved GPL onto the card inhibited. Refer to the *Commands Manual* to verify additional optional parameter usage for the **init-flash** command.

```
init-flash:code=appr:loc=xxxx
```

where xxxx is the card location used in Step 6

Following is an example of the output using card location 1115:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0  
FLASH Memory Downloading for card 1115 Started.  
;  
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0  
BPHCAP Downloading for card 1115 Complete.  
;  
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0  
Command Completed.
```

When the **init-flash** command has completed successfully, the card specified in the **init-flash** command is rebooted.

- 8 Enter the following command to put the card that was inhibited in Step 6 back into service:

```
alw-card:loc=xxxx
```

where xxxx is the card location used in Step 6

Following is an example of the output:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
Card has been allowed.
```

NOTE: Allow the card to run for 5 minutes before continuing.

- 9 Enter the following command to activate the approved GPL loaded onto the card in Step 7:

act-flash:loc=xxxx

where *xxxx* is the card location used in Step 7

Following is an example of the output using card location 1115:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
FLASH Memory Activation for card 1115 Completed.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
Command Completed.
```

- 10 After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system).

rept-stat-card

The following is an example of the possible output.

```
RLGHNCXA03W 98-02-04 12:57:21 EST EAGLE 34.0.0
CARD  VERSION      TYPE      APPL      PST      SST      AST
1113  023-102-000     MASP      OAM        IS-NR     Active   -----
1114  -----          TDM        -----   IS-NR     Active   -----
1115  -----          MASP      OAM        IS-NR     Active   -----
1116  -----          TDM        -----   IS-NR     Active   -----
1117  -----          MDAL        -----   IS-NR     Active   -----
1201  023-102-000     LIM0CU    CCS7ITU    IS-NR     Active   -----
1202  023-001-000     LIMDS0    CCS7ITU    IS-NR     Active   M BIP ERR
1203  023-001-000     LIMDS0    SS7ANSI    IS-NR     Active   -----
1205  023-001-000     LIMDS0    CCS7ITU    IS-NR     Active   M BIP ERR
1207  023-001-000     LIMATM    ATMANSI    IS-NR     Active   -----
1211  023-001-000     LIMATM    ATMANSI    IS-NR     Active   ALMINH
1212  023-001-000     TSM       SCCP       IS-NR     Active   ALMINH
Command Completed.
```

- 11 If you have performed Step 4, to safeguard against inadvertent OAP updates, enter the following command to remove the allow OAP update capability:

chg-trm:trm=x:type=OAP

- 12 Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

Card Removal/Replacement Procedures

where x is the terminal number.

- 13** Enter the following command to verify the database:

rept-stat-db

The following is an example of the possible output for a good database.

```
rept-stat-db
```

```
Command Accepted - Processing
```

```
oflnmoxallw 98-10-08 15:56:40 CDT EAGLE 34.0.0
```

```
rept-stat-db
```

```
Command entered at terminal #4.
```

```
;
```

```
oflnmoxallw 98-10-08 15:56:40 CDT EAGLE 34.0.0
```

```
DATABASE STATUS: >> OK <<
```

```
TDM 1114 ( STDBY)
```

```
TDM 1116 ( ACTV )
```

```
  C   LEVEL      TIME LAST BACKUP      C   LEVEL      TIME LAST BACKUP
```

```
FD BKUP Y   342256 98-10-07 00:40:29 CDT Y   342256 98-10-07 00:40:29 CDT
```

```
FD CRNT N   342374
```

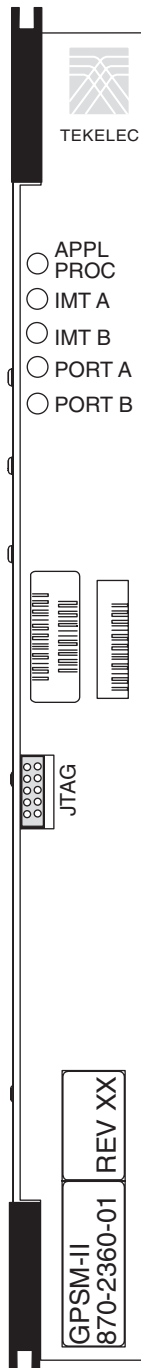
```
Y   342375
```

```
MDAL 1117
```

```
- - - - -
```

GPSM-II, General Purpose Service Module

Figure A-2.GPSM-II LEDs



LEDs	Descriptions
APPL PROC	RED – Critical alarm condition detected. GREEN – No alarm
IMT A	RED – Major alarm condition detected. AMBER – Minor alarm condition detected. GREEN – No alarm
IMT B	RED – Major alarm condition detected. AMBER – Minor alarm condition detected. GREEN – No alarm
PORT A	GREEN – PORT A is the active PORT. RED – PORT A is inactive
PORT B	GREEN – PORT B is the active PORT. RED – PORT B is inactive.

HIPR/HMUX Card Replacement

Description

The HIPR/HMUX card provides access to the IMT bus for all cards in the shelf.

The High-Speed Inter-processor Message Transport Packet Router (HIPR) (Figure A-3) provides connectivity to the IMT bus by using switched 125Mbps interfaces to each slot within a shelf. The HIPR card interoperates with the HMUX card and provides connectivity to the 1Gbps inter-shelf bus. The HIPR card transmits data between shelves only when it is necessary. Traffic between EAGLE 5 ISS cards on the same shelf are switched directly to the destination slot and do not transmit to any other cards in the shelf. Traffic between shelves are not required to pass onto an intra-shelf IMT channel if it is not necessary. The HIPR card is required in shelves equipped with high-performance LIMs, such as the High-Capacity MIM. The HIPR card requires all other shelves within the EAGLE 5 ISS to be equipped with the HMUX card or HIPR card.

The High-Speed Multiplexer (HMUX) (Figure A-4), is used in EAGLE 5 ISS only. HMUX interoperates with HIPR and provides connectivity to the 1Gbps inter-shelf bus. The intra-shelf low speed IMT bus/ring data rate is 125Mbps. HMUX acts as a gateway between the EAGLE 5 ISS 1 Gbps inter-shelf high speed bus and 125 Mbps intra-shelf IMT bus. HMUX transmits data between shelves only when it is necessary. Traffic between EAGLE 5 ISS intra-shelf cards stay on the shelf IMT bus and are not required to transmit intra-shelf. Traffic between shelves are not required to pass onto an intra-shelf IMT channel if it is not necessary.

Each shelf contains two HIPR or HMUX cards, one for each IMT bus, that provide continuity of the IMT bus signals even with failed or missing circuit modules. A mixture of HMUX and HIPR cards within one IMT ring is possible, provided HIPR is installed on both the IMT A & IMT B bus in a given shelf.

Procedure - HIPR/HMUX Card Replacement



WARNING: Be sure to inhibit the correct IMT bus. If you inhibit the wrong IMT bus and then remove the HIPR/HMUX, total nodal isolation will occur. Wait until the IMT has returned to IS-NR before replacing the other HIPR/HMUX.

- 1 Enter the following command to verify the status of the IMT buses.

rept-stat-imt

The following is an example of the possible output.

```
RLGHNCXA03W 98-09-27 16:50:24 EST EAGLE 34.0.0
IMT  PST          SST          AST
 A   IS-NR        Active       -----
ALARM STATUS = No alarms
IMT  PST          SST          AST
 B   IS-ANR       Fault        -----
ALARM STATUS = ** 0108 Major IMT Failure Detected
Command Completed.
```

- 2 Enter the following command to inhibit the IMT bus associated with the HIPR/HMUX being removed (top HIPR/HMUX accesses bus A, bottom HIPR/HMUX accesses bus B).

rmv-imt:bus=x

where *x* is the IMT bus to be inhibited.

- 3 Perform Step 3 and Step 4 only if the OAP is being utilized. Otherwise, continue with Step 5

. Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

- 4 Enter the following command to inhibit each OAP terminal displayed in the output from Step 3:

inh-trm:trm=x:force=yes

where *x* is the terminal number assigned as type OAP.

- 5 Remove the HIPR/HMUX, per the card replacement procedure described in the section titled "Replacing a Card" on Page A-52. Place the new HIPR/HMUX into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 6 Enter the following command to restore the IMT bus.

alw-imt:bus=x

where *x* is the IMT bus inhibited.

NOTE: If UAM 0002 is output, the newly installed HIPR/HMUX card needs to be flashed.

- 7 Enter the following command to determine if the newly replaced cards memory needs to be flashed:

rept-stat-gpl:gpl=xxxxxx

where *xxxxxx* is **hipr** or **bphmux**.

Following is an example of a bphmux output:

```
tekelecstp 03-07-03 16:53:23 EST EAGLE5 34.0.0-55.0.0
GPL Auditing ON
```

GPL	CARD	RUNNING	APPROVED	TRIAL
BPHMUX	1209	028-005-000	028-005-000	-----
BPHMUX	1210	028-005-000	028-005-000	-----
BPHMUX	1309	028-004-000	028-005-000	ALM -----
BPHMUX	1310	028-005-000	028-005-000	-----

NOTE: Mismatched GPLs should occur only during upgrades or running a trial GPL.

Card Removal/Replacement Procedures

- 8 Examine the output from Step 7.
 - If the GPLs match, continue with Step 17.
 - If there is a GPL mismatch, continue with Step 9.
- 9 Enter the following command to verify GPL Auditing is ON.

```
chg-gpl:audit=on
```

- 10 Enter the following command to load the GPL onto the HIPR/HMUX card.

```
init-flash:code=appr:loc=xxxx
```

where *xxxx* is the card location newly replaced card.

Following is an example of a bphmux output using card location 1309:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
FLASH Memory Downloading for card 1309 Started.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
BPHMUX Downloading for card 1309 Complete.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
Command Completed.
```

- 11 Enter the following command to initialize the HIPR/HMUX.



CAUTION: This command boots the HIPR/HMUX processor and brings down the respective IMT bus temporarily (approximately 10 seconds) until the HMUX card comes back into service.

```
init-mux:loc=xxxx:bus=y
```

where *xxxx* is the card location used in Step 10, and *y* is the bus.

NOTE: Allow the card to run for 5 minutes before continuing.

- 12 Enter the following command to activate the GPL loaded onto the HIPR/HMUX card in Step 10:

```
act-flash:loc=xxxx
```

where *xxxx* is the card location used in Step 9.

Following is an example of the output using card location 1309:

```
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
FLASH Memory Activation for card 1309 Completed.
;
RLGHNCXA03W 00-06-05 11:11:28 EDT EAGLE 34.0.0
Command Completed.
```

- 13 Enter the following command to verify the approved GPLs match the running GPLs:

```
rept-stat-gpl:gpl=xxxxxx
```

where *xxxxxx* is **hipr** or **bphmux** (the **GPL SYSTEM** identified in the output).

- 14 If the GPLs match, continue with Step 17.

If the GPLs do not match, continue with Step 15.

- 15 Enter the following command determine which cards are in alarm condition (indicated by the acronym ALM in the **rept-stat-gpl** display):

rept-stat-gpl

- 16 Note which cards are in an alarm condition and, (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 17 Perform this step only if the the OAP was inhibited in Step 4. If Step 4 was not performed, continue with Step 18.

Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where *x* is the terminal number of the inhibited OAP terminal.

- 18 Enter the following command to verify that the HIPR/HMUX card is in service and the IMT bus has been restored.

rept-stat-imt

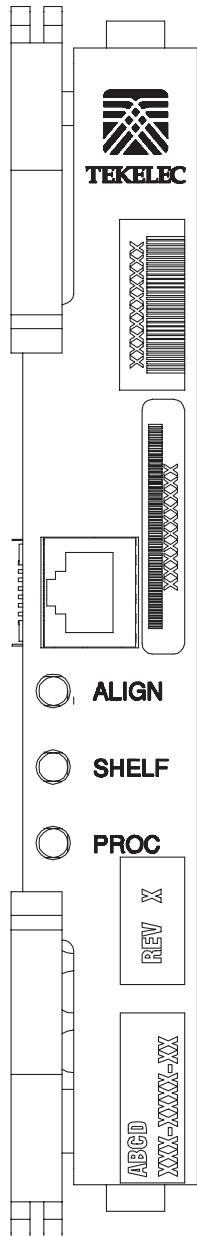
```

RLGHNCXA03W 98-09-27 16:50:24 EST EAGLE 34.0.0
IMT  PST          SST          AST
 A   IS-NR        Active       -----
ALARM STATUS      = No alarms
IMT  PST          SST          AST
 B   IS-NR        Active       -----
ALARM STATUS      = No alarms
Command Completed.
    
```

Card Removal/Replacement Procedures

HIPR, High-Speed Inter-processor Message Transport Packet Router

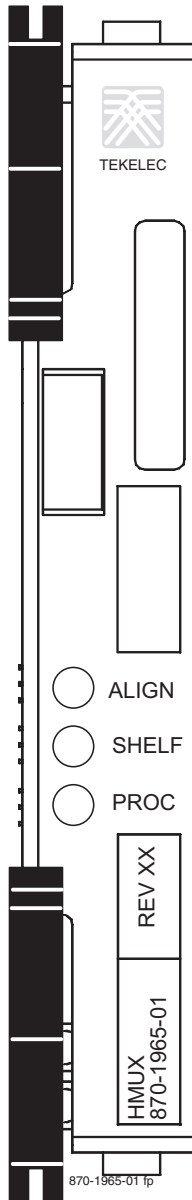
Figure A-3.HIPR LEDs



LEDs	Descriptions
ALIGN	<p>AMBER – Programming XILINX complete</p> <p>GREEN – Complete code initialization (stays Amber until the first valid Shelf ID is received from MASP), Code running</p>
SHELF ID	<p>AMBER – Programming XILINX complete, Complete code initialization</p> <p>RED – While code running if ID address received from OAM does not match the on-board stored address read from the assigned shelf address register (see first note below)</p> <p>GREEN – While code running if ID address received from OAM matches the on-board stored address read from the assigned shelf address register (see second note below)</p>
PROC Health	<p>RED – Power on Reset</p> <p>AMBER – Programming XILINX</p> <p>GREEN – Programming XILINX complete, Complete code initialization, Code running</p>

HMUX, High-Speed Multiplexer (Eagle STP only)

Figure A-4.HMUX LEDs



LEDs	Descriptions
ALIGN	AMBER – Programming XILINX complete GREEN – Complete code initialization (stays Amber until the first valid Shelf ID is received from MASP), Code running
SHELF ID	AMBER – Programming XILINX complete, Complete code initialization RED – While code running if ID address received from OAM does not match the on-board stored address read from the assigned shelf address register (see first note below) GREEN – While code running if ID address received from OAM matches the on-board stored address read from the assigned shelf address register (see second note below)
PROC Health	RED – Power on Reset AMBER – Programming XILINX GREEN – Programming XILINX complete, Complete code initialization, Code running

NOTE: The LED color state change during power up and reset happens within one second. To determine operating status, wait until reset is over.

NOTE: At start up, each HMUX card receives an ID address from the OAM. The HMUX card stores this address in on-board memory, in register FF. Every five seconds, the OAM re-sends the same addresses to the HMUX cards, which compare the re-send with the address they previously received and stored in memory. If the address sent to an HMUX card by OAM does not match the stored address, the HMUX Illegal Address Error alarm will cause the Shelf LED color to change to RED.

Determine LIM, MIM, and MPL Changeout Time

Description

This procedure assists the customer in deciding if the LIM should be changed immediately or during the Maintenance Window.

Procedure - Determine LIM, MIM, and MPL Changeout Time

- 1 Replace the LIM immediately if *any* of the following conditions exist:
 - If there is only one link on the card
 - If there is no other in-service link on this card
 - If deactivating the LIM will not prohibit a destination
 - If any destination is prohibited by the current failure.

- 2 Wait until the maintenance window to replace the card if *all* of the following conditions exist:
 - If the faulty link is not the only in-service link on the card
 - If deactivating the link will prohibit a destination
 - If no destination is prohibited by the current failure.

SS7 and IP7, LIM, MIM, HC-MIM and MPL Card Replacement

Description

This Link Interface Module (LIM) (Figure A-5) provides access to remote SS7, IP and other network elements, such as a Signaling Control Point (SCP). This card is equipped with an industry-standard ATM, DS0, OCU, or V.35 interface. The MIM card can also be equipped with an industry-standard DS1 interface.

The types of LIMs currently available are:

- LIM-DS0A
- LIM-OCU
- LIM-V.35
- LIM
- Integrated LIM Applique (LIM-ILA)
- Multi-Port LIM (MPL)
- Enhanced Integrated LIM Applique (EILA)
- The E1/T1 Multi-Channel Interface Module (MIM)
- High Capacity Multi-Channel Interface Module (HC-MIM)

Procedure - SS7 and IP7, LIM, MIM, HC-MIM and MPL Card Replacement

- 1 Enter the following command to determine which links are serviced by this card.

rept-stat-card:loc=xxxx

Where *xxxx* is the card location.

The following is an example of the possible output.

```

RLGHNCXA03W 98-09-27 16:43:42 EST EAGLE 34.0.0
CARD VERSION      TYPE      APPL      PST          SST          AST
1201 021-002-000 LIMDS0  CCS7ITU  IS-NR        Active       -----
  ALARM STATUS    = * 0022 Clock B for card failed.
  IMT VERSION     = 021-001-000
  PROM VERSION   = 021-001-000
  IMT BUS A      = Conn
  IMT BUS B      = Fault
  SLK A PST      = IS-NR          LS=lsnssp2  CLLI=-----
  SLK B PST      = IS-NR          LS=lsnstpi  CLLI=-----
  SCCP SERVICE CARD = 1212
  SLAN SERVICE CARD = ----
Command Completed.

```

- 2 Refer to "Determine LIM, MIM, and MPL Changeout Time" procedure to determine when to change the card.
-

NOTE: The **inh-slk** command will be rejected if inhibiting the link would cause a DPC to become unavailable.

- 3 Enter the following command to inhibit the links on both ports of this card (a and b).

inh-slk:loc=xxxx:port=y

Where *xxxx* location of the card from Step 1 and *y* is the port.

- 4 Enter the following command to change the status of the link to out of service - maintenance disabled (**oos-mt-dsbl**). Enter the same location and ports from Step NOTE:

dact-slk:loc=xxxx:port=y

Where *xxxx* location used in Step NOTE: and *y* are the ports used in Step NOTE:

- 5 Enter the following command to ensure the signaling link status is **oos-mt-dsbl** (out of service - maintenance disabled).

rept-stat-slk

The following is an example of the possible output.

```

RLGHNCXA03W 98-09-27 17:00:36 EST EAGLE 34.0.0
rept-stat-slk
SLK  LSN          CLLI          PST          SST          AST
1201,A lsnssp2    -----    IS-NR        Avail        ----
1201,B lsnstpi    -----    OOS-MT-DSBLD LPBK        ----
1202,A lsnstpn    -----    IS-NR        Avail        ----

```

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```
1202,B lsnstpi      ----- IS-NR      Avail      ----
1203,A lsnstpa      ----- IS-NR      Avail      ----
1203,B lsnscpa      ----- IS-NR      Avail      ----
1205,A lsnscpi      ----- IS-NR      Avail      ----
1205,B lsnsspi1     ----- IS-NR      Avail      ----
1207,A lsnstpa      ----- IS-NR      Avail      ----
1207,B lsnsspa1     ----- IS-NR      Avail      ----
1211,A lsnstpn      ----- IS-NR      Avail      ----
1211,B lsnsspn1     ----- IS-NR      Avail      ----
Command Completed.
```

- 6 Enter the following command to inhibit the card and disconnect it from the IMT bus.

rmv-card:loc=xxxx

Where *xxxx* location used in Step 3 and Step 4.

- 7 Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

- 8 Enter the following command to inhibit each OAP terminal displayed in the output from Step 7:

inh-trm:trm=x:force=yes

where *x* is the terminal number assigned as type OAP.

- 9 Remove the LIM/MIM/MPL, per the card replacement procedure described in the section titled "Replacing a Card in the EAGLE 5 ISS" on Page A-52. Place the new SS7 LIM into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 10 Enter the following command to download generic program loads and database information from the TDM card to the new LIM/MIM/MPL.

rst-card:loc=xxxx

Where *xxxx* location used in Step 6.

- 11 Enter the following command to determine which links are serviced by this card.

rept-stat-card:loc=xxxx

Where *xxxx* is the location of the replaced card.

NOTE: The signaling link alarms will be present until the links are restored in Step 13

- 12 Examine the output from Step 11. Refer to Chapter 3, *Corrective Maintenance* to clear any GPL related alarms on the newly replaced card before continuing.
-

- 13 Enter the following command to return the links to service. Make sure this is done on all links.

act-slk:loc=xxx:port=y

Where *xxx* location used in Step 3 and Step 4 and *y* are the ports used in Step 3 and Step 4.

- 14 Enter the following command to change the link status to IS-NR. Make sure this is done on both ports, *a* and *b*.

unhb-slk:loc=xxx:port=y

Where *xxx* location used in Step NOTE: and Step 4 and *y* are the ports used in Step NOTE: and Step 4.

- 15 Enter the following command to verify the status of the card and its associated links.

rept-stat-card:loc=xxx

Where *xxx* is the card location.

The following is an example of the possible output.

```

RLGHNCXA03W 98-09-27 16:43:42 EST EAGLE 34.0.0
CARD VERSION      TYPE      APPL      PST      SST      AST
1201 024-002-000 LIMDS0  SS7ANSI  IS-NR      Active  -----
  ALARM STATUS      = No Alarms.
  IMT VERSION        = 024-001-000
  PROM VERSION       = 024-001-000
  IMT BUS A          = Conn
  IMT BUS B          = Conn
  SLK A PST          = IS-NR      LS=lsnssp2  CLLI=-----
  SLK B PST          = IS-NR      LS=lsnstpi  CLLI=-----
  SCCP SERVICE CARD = 1212
  SLAN SERVICE CARD = ----
Command Completed.

```

- 16 Enter the following command to verify the links are properly aligned and are returned to full service.

rept-stat-slk

The following is an example of the possible output.

```

RLGHNCXA03W 98-09-27 17:00:36 EST EAGLE 34.0.0
rept-stat-slk
SLK  LSN      CLLI      PST      SST      AST
1201,A lsnssp2  -----  IS-NR    Avail    ----
1201,B lsnstpi  -----  OOS-MT-DSBLD  LPBK    ----
1202,A lsnstpn  -----  IS-NR    Avail    ----
1202,B lsnstpi  -----  IS-NR    Avail    ----
1203,A lsnstpa  -----  IS-NR    Avail    ----
1203,B lsnscpa  -----  IS-NR    Avail    ----
1205,A lsnscpi  -----  IS-NR    Avail    ----
1205,B lsnsspil -----  IS-NR    Avail    ----
1207,A lsnstpa  -----  IS-NR    Avail    ----
1207,B lsnsspal -----  IS-NR    Avail    ----
1211,A lsnstpn  -----  IS-NR    Avail    ----
1211,B lsnsspnl -----  IS-NR    Avail    ----
Command Completed.

```

Card Removal/Replacement Procedures

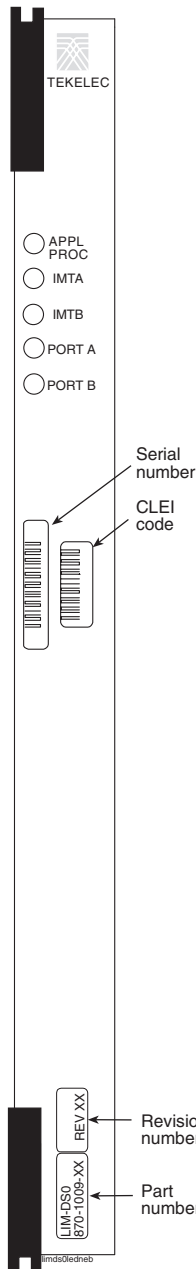
17 Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where x is the terminal number of the inhibited OAP terminal.

DS0A-LIM, Digital Signal Level-0 Link Interface Module

Figure A-5.DS0A-LIM LEDs

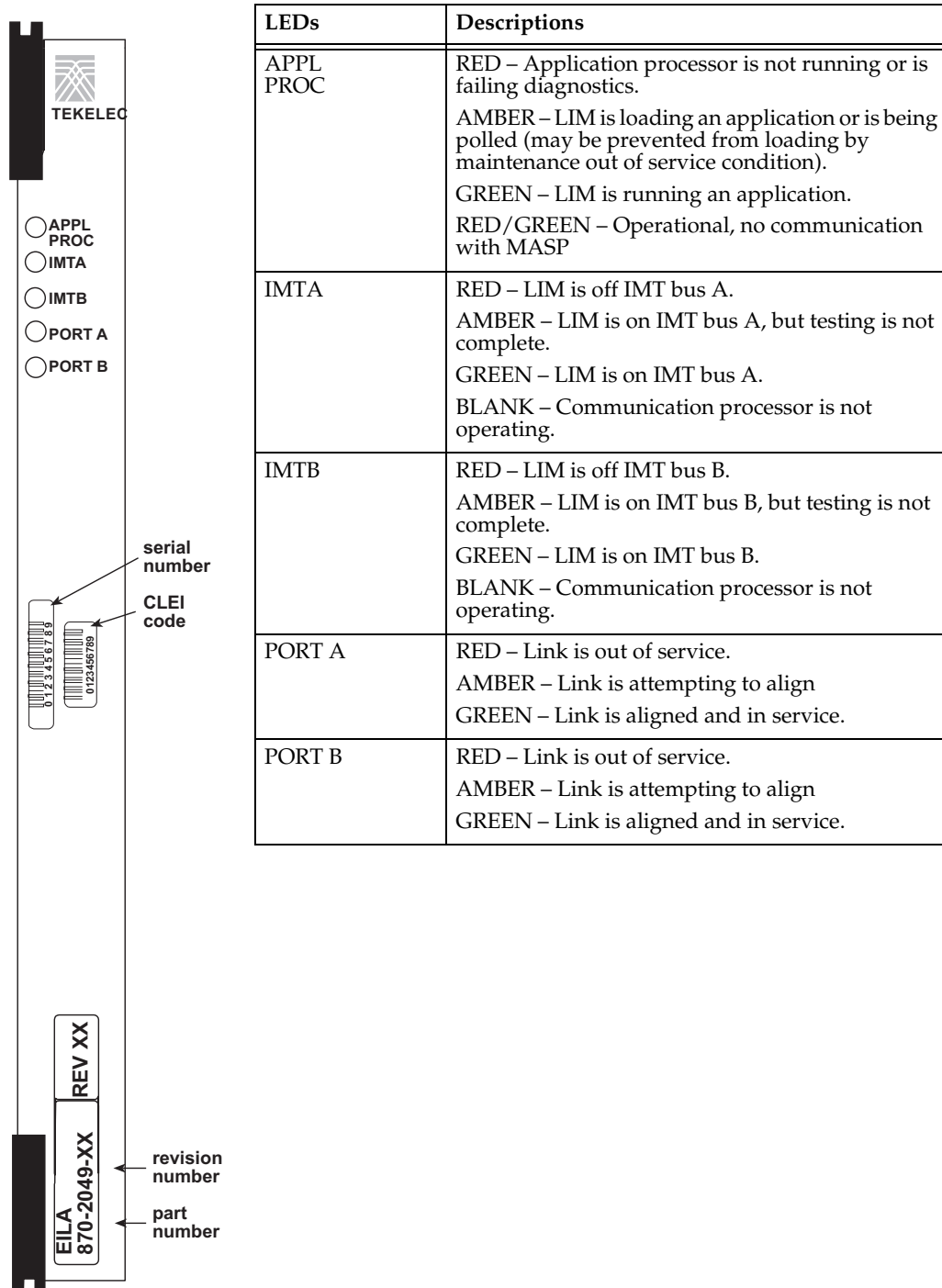


LEDs	Descriptions
APPL PROC	RED – Application processor is not running or is failing diagnostics. AMBER – LIM-DS0A is loading an application or is being polled (may be prevented from loading by maintenance out of service condition). GREEN – LIM-DS0A is running an application.
IMTA	RED – LIM-DS0A is off IMT bus A. AMBER – LIM-DS0A is on IMT bus A, but testing is not complete. GREEN – LIM-DS0A is on IMT bus A. BLANK – Communication processor is not operating.
IMTB	RED – LIM-DS0A is off IMT bus B. AMBER – LIM-DS0A is on IMT bus B, but testing is not complete. GREEN – LIM-DS0A is on IMT bus B. BLANK – Communication processor is not operating.
PORT A	RED – Link is out of service. GREEN – Link is aligned and in service.
PORT B	RED – Link is out of service. GREEN – Link is aligned and in service.

LIM-ATM, LIM-AINF, LIM-E1, LIM, EILA, ILA

ATM Link Interface Module, AINF Link Interface Module, E1 Link Interface Module, Enhanced Integrated LIM AINF, Integrated LIM AINF

Figure A-6.LIM LEDs



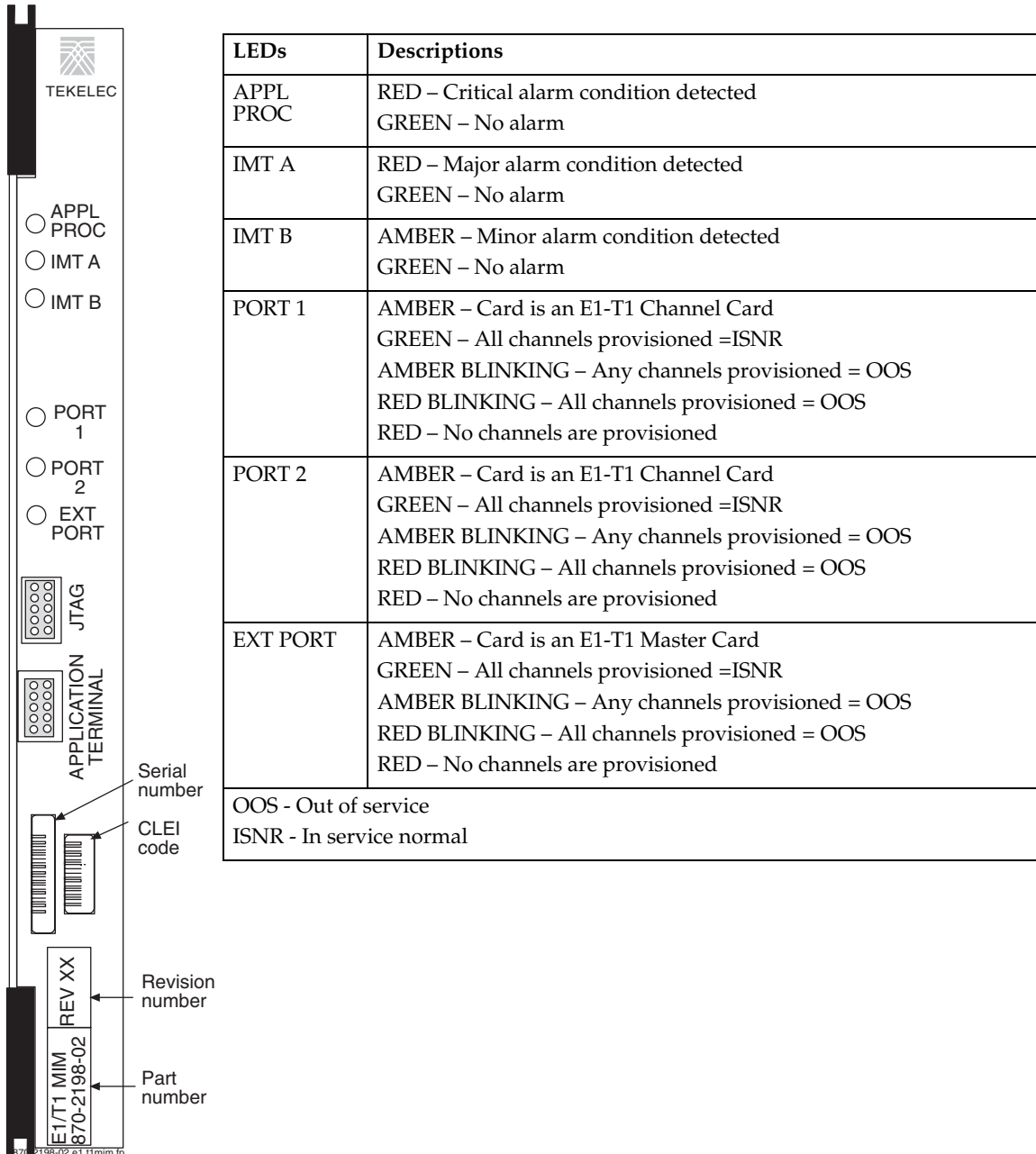
LEDs	Descriptions
APPL PROC	RED – Application processor is not running or is failing diagnostics. AMBER – LIM is loading an application or is being polled (may be prevented from loading by maintenance out of service condition). GREEN – LIM is running an application. RED/GREEN – Operational, no communication with MASP
IMTA	RED – LIM is off IMT bus A. AMBER – LIM is on IMT bus A, but testing is not complete. GREEN – LIM is on IMT bus A. BLANK – Communication processor is not operating.
IMTB	RED – LIM is off IMT bus B. AMBER – LIM is on IMT bus B, but testing is not complete. GREEN – LIM is on IMT bus B. BLANK – Communication processor is not operating.
PORT A	RED – Link is out of service. AMBER – Link is attempting to align GREEN – Link is aligned and in service.
PORT B	RED – Link is out of service. AMBER – Link is attempting to align GREEN – Link is aligned and in service.

Card Removal/Replacement Procedures

E1/T1 MIM, E1/T1 Multichannel Interface Module

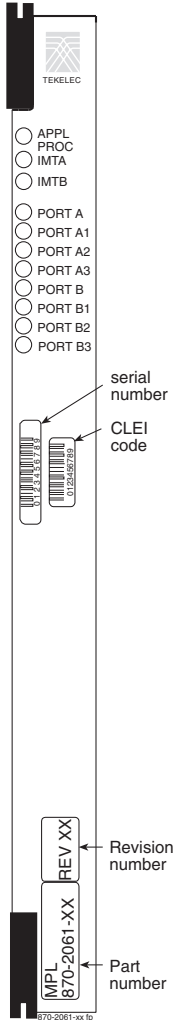
European and North American standard for signaling and channels MIM (Multi-channel Interface Module).

Figure A-7.E1/T1 MIM



MPL-LIM, Multi-Port Link Interface Module

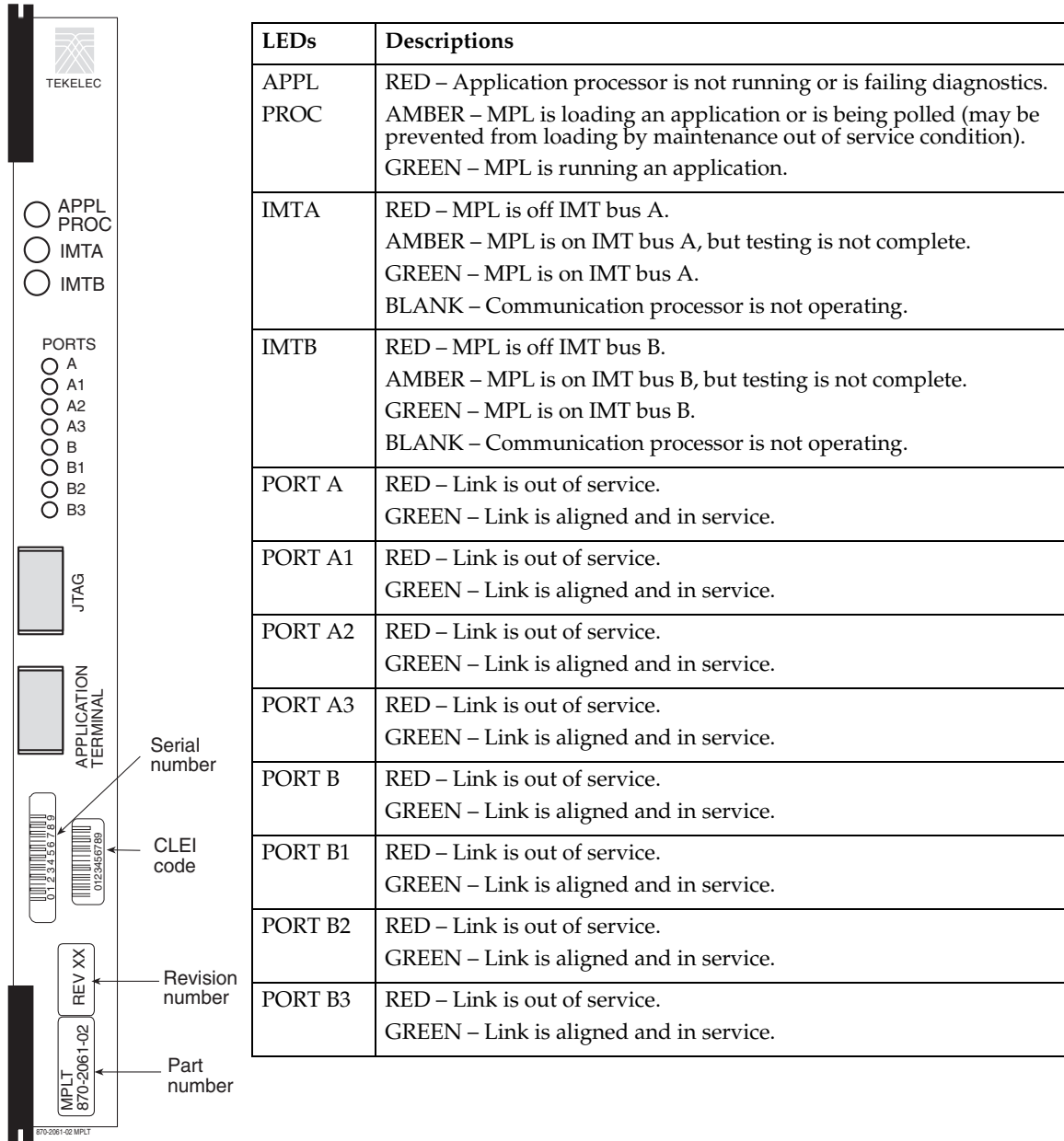
Figure A-8.MPL LEDs



LEDs	Descriptions
APPL PROC	RED – Application processor is not running or is failing diagnostics. AMBER – MPL is loading an application or is being polled (may be prevented from loading by maintenance out of service condition). GREEN – MPL is running an application. RED/GREEN (Alternating) Operational but no communication with MASP
IMTA	RED – MPL is off IMT bus A. AMBER – MPL is on IMT bus A, but testing is not complete. GREEN – MPL is on IMT bus A. BLANK – Communication processor is not operating.
IMTB	RED – MPL is off IMT bus B. AMBER – MPL is on IMT bus B, but testing is not complete. GREEN – MPL is on IMT bus B. BLANK – Communication processor is not operating.
PORT A	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.
PORT A1	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.
PORT A2	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.
PORT A3	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.
PORT B	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.
PORT B1	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.
PORT B2	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.
PORT B3	RED – Link is out of service. AMBER – Link attached to Port is attempting to align GREEN – Link is aligned and in service. RED/GREEN (alternating) – Link attached to Port is in a loop-back condition.

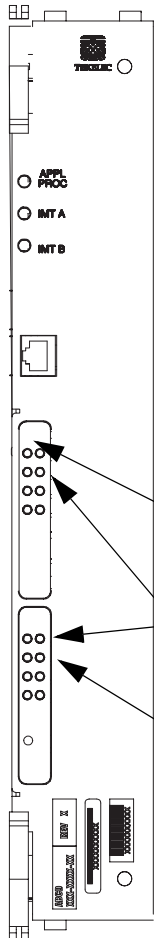
MPLT, Multi-Port Link Interface Module with Taxi Component

Figure A-9.MPLT LEDs



HC MIM, High Capacity Multi-channel Interface Module

Figure A-10.HC MIM LEDs



LEDs	Descriptions
APPL PROC	RED – Application processor is not running or is failing diagnostics. AMBER – MPL is loading an application or is being polled (may be prevented from loading by maintenance out of service condition). GREEN – MPL is running an application.
IMTA	RED – MPL is off IMT bus A. AMBER – MPL is on IMT bus A, but testing is not complete. GREEN – MPL is on IMT bus A. BLANK – Communication processor is not operating.
IMTB	RED – MPL is off IMT bus B. AMBER – MPL is on IMT bus B, but testing is not complete. GREEN – MPL is on IMT bus B. BLANK – Communication processor is not operating.
PORT Status	RED – Port not provisioned. RED BLINKING – Loss of signal and remaining errors. AMBER – Remote alarm condition AMBER BLINKING – Loss of Frame Synchronization. GREEN – No alarms, port has acquired timing and framing synchronization
AGGREGATED CHANNEL STATUS	RED – No channels are provisioned. RED BLINKING – All channels provisioned = OOS. AMBER – Indicates port is the “reflected” port in Channel Bridging mode of operation. Applies only to “even” numbered ports AMBER BLINKING – Any channels provisioned = OOS. GREEN – All channels provisioned = ISNR.

X.25 Link Interface Module (LIM)

Description

This Link Interface Module (LIM) provides access to other X.25 via digital links. This card is equipped with an industry standard DS0A, OCU, or V.35 interface.

Procedure - X.25 LIM Card Replacement

- 1 Enter the following command to determine which links are serviced by this card.

rept-stat-card:loc=xxxx

Where *xxxx* is the card location.

The following is an example of the possible output.

```
RLGHNCXA03W 98-09-27 16:43:42 EST EAGLE 34.0.0
CARD VERSION      TYPE  APPL  PST      SST      AST
1201 024-002-000  LIMDS0 SS7ANSI IS-NR      Active  -----
ALARM STATUS      = * 0022 Clock B for card failed.
IMT VERSION       = 024-001-000
PROM VERSION      = 024-001-000
IMT BUS A         = Conn
IMT BUS B         = Fault
SLK A PST         = IS-NR      LS=lsnssp2  CLLI=-----
SLK B PST         = IS-NR      LS=lsnstpi  CLLI=-----
SCCP SERVICE CARD = 1212
SLAN SERVICE CARD = ----
Command Completed.
```

- 2 Refer to Procedure *Determine LIM, MIM, and MPL Changeout Time* on page A-15 to determine when to change the card.
- 3 Enter the following command to change the status of the link to out of service - maintenance disabled (**oos-mt-dsblld**). Enter the same location and ports from the output in Step 1.

dact-slk:loc=xxxx:port=y

Where *xxxx* is the card location and *y* is the port.

- 4 Enter the following command to ensure the signaling link status is **oos-mt-dsblld** (out of service - maintenance disabled).

rept-stat-slk

The following is an example of the possible output.

```

RLGHNCXA03W 98-09-27 17:00:36 EST EAGLE 34.0.0
rept-stat-slk
SLK   LSN           CLLI           PST           SST           AST
1201,A lsnssp2     ----- IS-NR           Avail         ----
1201,B lsnstpi     ----- OOS-MT-DSBLD LPBK          ----
1202,A lsnstpn     ----- IS-NR           Avail         ----
1202,B lsnstpi     ----- IS-NR           Avail         ----
1203,A lsnstpa     ----- IS-NR           Avail         ----
1203,B lsnscpa     ----- IS-NR           Avail         ----
1205,A lsnscpi     ----- IS-NR           Avail         ----
1205,B lsnsspi1    ----- IS-NR           Avail         ----
1207,A lsnstpa     ----- IS-NR           Avail         ----
1207,B lsnsspal    ----- IS-NR           Avail         ----
1211,A lsnstpn     ----- IS-NR           Avail         ----
1211,B lsnsspnl    ----- IS-NR           Avail         ----
Command Completed.

```

- 5 Enter the following command to inhibit the card and disconnect it from the IMT bus.

rmv-card:loc=xxxx

Where *xxxx* is the location of the card.

- 6 Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

- 7 Enter the following command to inhibit each OAP terminal displayed in the output from Step 6:

inh-trm:trm=x:force=yes

where *x* is the terminal number assigned as type OAP.

- 8 Remove the X.25 LIM, per the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52. Place the new X.25 LIM into place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 9 Enter the following command to download generic program loads and database information from the MASP and TSM cards to the new link interface module (LIM).

rst-card:loc=xxxx

Where *xxxx* is the location used in Step 5.

- 10 Enter the following command to return the links to service. Make sure this is done on both ports, **a** and **b**.

act-slk:loc=xxxx:port=y

Where *xxxx* location used in Step 3 and *y* are the ports used in Step 3.

- 11 Enter the following command to verify the status of the card and its associated links.

Card Removal/Replacement Procedures

rept-stat-card:loc=xxxx

Where *xxxx* is the card location.

The following is an example of the possible output.

```
RLGHNCXA03W 98-09-27 16:43:42 EST EAGLE 34.0.0
CARD VERSION      TYPE    APPL    PST          SST          AST
1201 024-002-000 LIMDS0  SS7ANSI  IS-NR        Active       -----
  ALARM STATUS    = No Alarms.
  IMT VERSION     = 024-001-000
  PROM VERSION    = 024-001-000
  IMT BUS A       = Conn
  IMT BUS B       = Conn
  SLK A PST       = IS-NR          LS=lsnsspn2  CLLI=-----
  SLK B PST       = IS-NR          LS=lsnstpi   CLLI=-----
  SCCP SERVICE CARD = 1212
  SLAN SERVICE CARD = ----
Command Completed.
```

- 12 Enter the following command to verify the links are properly aligned and are returned to full service.

rept-stat-slk

The following is an example of the possible output.

```
RLGHNCXA03W 98-09-27 17:00:36 EST EAGLE 34.0.0
rept-stat-slk
SLK  LSN          CLLI          PST          SST          AST
1201,A lsnsspn2  ----- IS-NR          Avail       ----
1201,B lsnstpi   ----- OOS-MT-DSBLD LPEK        ----
1202,A lsnstpn   ----- IS-NR          Avail       ----
1202,B lsnstpi   ----- IS-NR          Avail       ----
1203,A lsnstpa   ----- IS-NR          Avail       ----
1203,B lsnscpa   ----- IS-NR          Avail       ----
1205,A lsnscpi   ----- IS-NR          Avail       ----
1205,B lsnsspi1  ----- IS-NR          Avail       ----
1207,A lsnstpa   ----- IS-NR          Avail       ----
1207,B lsnsspal  ----- IS-NR          Avail       ----
1211,A lsnstpn   ----- IS-NR          Avail       ----
1211,B lsnsspn1  ----- IS-NR          Avail       ----
Command Completed.
```

- 13 Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where *x* is the terminal number of the inhibited OAP terminal.

Transaction Service Module (TSM) - SCCP

Description

The Translation Service Module (TSM) provides translation capability and Global Title Translation (GTT) implementation for the Local Number Portability (LNP) function by means of one or more identically configured cards per STP node. If more than one TSM is provided in each shelf, they must be powered from different fuse positions and power feeds. The SCCP identifier signifies that this TSM card (Figure A-11) is being used to provide global title translation (GTT).

The TSM provides additional memory for storage of the GTT tables. These tables are downloaded by the terminal disk module (TDM) to the TSM upon power loss or hard reset.

Procedure - TSM-SCCP Card Replacement

- 1 Enter the following command to determine which cards are in service. This will indicate which link interface modules (LIMs) will be affected by removal of the TSM.

rept-stat-card:loc=xxxx

Where *xxxx* is the TSM-SCCP card location.

The following is an example of the possible output.

```

RLGHNCXA03W 98-09-27 16:43:42 EST  EAGLE 34.0.0
CARD  VERSION      TYPE   APPL   PST      SST      AST
1212  024-001-000   TSM    SCCP   IS-NR      Active   -----
  ALARM STATUS      = No Alarms.
  IMT VERSION       = 024-001-000
  PROM VERSION     = 024-001-000
  IMT BUS A        = Conn
  IMT BUS B        = Conn
  SLK A PST        = IS-NR      LS=lsnsspn2  CLLI=-----
  SLK B PST        = IS-NR      LS=lsnstpi   CLLI=-----
  SCCP SERVICE CARD = 1212
  SLAN SERVICE CARD = ----
Command Completed.

```

- 2 Enter the following command to determine the number of TSM-SCCP cards in service providing GTT.

rept-stat-sccp:mode=perf

Card Removal/Replacement Procedures

The following is an example of the possible output.

```
RLGHNCXA03W 98-02-04 15:10:19 EST EAGLE 34.0.0
SCCP SUBSYSTEM REPORT IS-NR Ovflw-1 -----
SCCP Cards Configured=4 Cards IS-NR=4 Capacity Threshold = 100%
CARD CPU TOTAL CLASS 0 CLASS 0 CLASS 1
      USAGE MSU RATE TVG RATE LB RATE LB RATE
-----
1217 54% 850 770 50 30
1218 31% 490 400 40 50
4118 5% 80 0 40 40
4211 5% 80 0 80 0
-----
AVERAGE USAGE: CLASS 0 ATM = 34% CLASS 0 LIM = 6% CLASS 1 LIM = 4%
AVERAGE MSU USAGE = 44%
AVERAGE CPU USAGE = 24%
TOTAL MSUS: 1500
TOTAL ERRORS: 5
Command Completed.
```

- 3 Enter the following command to remove the ASM-SCCP from service. If this is the last TSM-SCCP card in service, the **:force=yes** parameter must be specified.

```
rmv-card:loc=xxxx
```

Where *xxxx* is the TSM-SCCP card location.

- 4 Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

- 5 Enter the following command to inhibit each OAP terminal displayed in the output from Step 4:

```
inh-trm:trm=x:force=yes
```

where *x* is the terminal number assigned as type OAP.

- 6 Remove the ASM-SCCP card, per the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52. Place the new TSM-SCCP card into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 7 Enter the following command Use the **rst-card** command to return the TSM-SCCP card into service. This causes the MASP to begin downloading tables to the new TSM-SCCP card.

```
rst-card:loc=xxxx
```

Where *xxxx* is the TSM-SCCP card location.

When the card has been successfully loaded (there will be a response on the terminal that downloading is complete). This can take up to 30 minutes.

- 8 Enter the following command to verify the card is operational and providing SCCP services.

rept-stat-sccp

The following is an example of the possible output.

```
RLGHNCXA03W 98-02-07 16:10:50 EST EAGLE 34.0.0
SCCP SUBSYSTEM REPORT IS-NR Active -----
SCCP Cards Configured= 1 Cards IS-NR= 1 Capacity Threshold = 100%
CARD VERSION PST SST AST MSU USAGE CPU USAGE
-----
1212 024-001-000 IS-NR Active ALMINH 47% 32%
-----
SCCP Service Average MSU Capacity = 47% Average CPU Capacity = 32%
Command Completed.
```

- 9 Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where *x* is the terminal number of the inhibited OAP terminal.

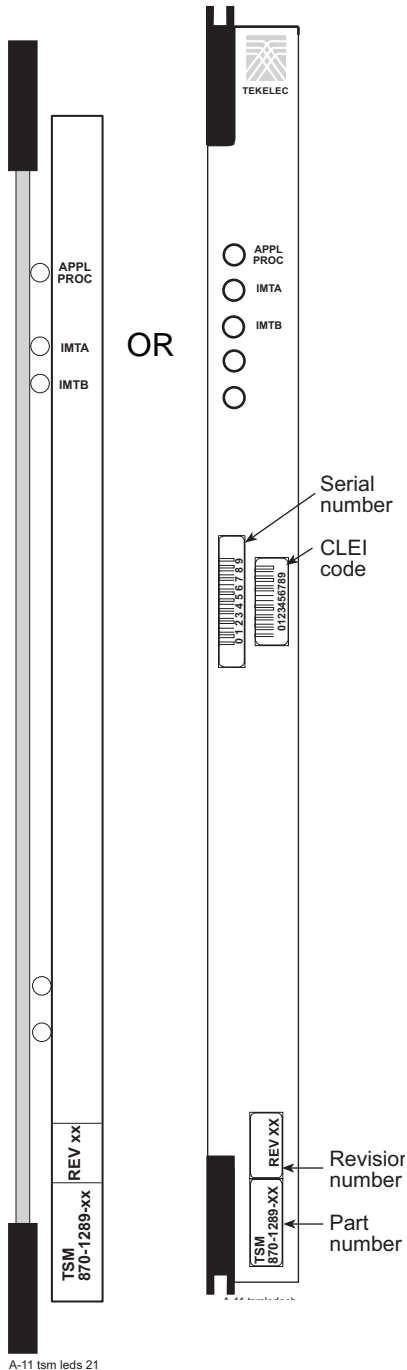
Card Removal/Replacement Procedures

TSM

Figure A-11.TSM LEDs

Figure A-12.

Figure A-12.



LEDs	Descriptions
APPL PROC - Applications Processor Status	<p>RED - Application processor is not running or is failing diagnostics.</p> <p>AMBER - TSM is loading an application or is being polled (may be prevented from loading by maintenance out of service condition).</p> <p>GREEN - TSM is running an application.</p> <p>RED/GREEN - Operational, no communication with the MASP.</p>
IMT A - IMT Bus A Status	<p>RED - ASM is off IMT bus A.</p> <p>AMBER - TSM is on IMT bus A, but testing is not complete.</p> <p>GREEN - TSM is on IMT bus A.</p> <p>BLANK - Communication processor is not operating.</p>
IMT B - IMT Bus B Status	<p>RED - TSM is off IMT bus B</p> <p>AMBER - TSM is on IMT bus B, but testing is not complete.</p> <p>GREEN - TSM is on IMT bus B.</p> <p>BLANK - Communication processor is not operating.</p>

Transaction Service Module (TSM) - GLS

Description

The GLS identifier signifies that this TSM card (Figure A-11) is used for downloading gateway screening tables to link interface modules (LIMs). This is used to expedite the downloading process and bring links into service much quicker.

The absence of this card will not effect the gateway screening capability, as the screening takes place on the LIMs and TSM-SCCP cards. This only effects the ability to download screening data to the LIMs and TSM-SCCP cards.

Procedure - TSM-GLS Card Replacement

- 1 Enter the following command to identify how many TSM-GLS cards are presently configured for this application:

rept-stat-card

The following is an example of the possible output.

```

RLGHNCXA03W 98-02-04 12:57:21 EST EAGLE 34.0.0
CARD  VERSION      TYPE  APPL    PST      SST      AST
1113  024-102-000    MASP  OAM     IS-NR    Active   -----
1114  -----         TDM   ----- IS-NR    Active   -----
1115  -----         MASP  OAM     OOS-MT   Isolated -----
1116  -----         TDM   ----- OOT-MT   Isolated -----
1117  -----         MDAL  ----- IS-NR    Active   -----
1201  024-102-000    LIM0CU CCS7ITU IS-NR    Active   -----
1202  024-001-000    LIMDSO CCS7ITU IS-NR    Active   M BIP ERR
1203  024-001-000    LIMDSO SS7ANSI IS-NR    Active   -----
1205  024-001-000    LIMDSO CCS7ITU IS-NR    Active   M BIP ERR
1207  024-001-000    LIMATM ATMANSI IS-NR    Active   -----
1211  024-001-000    LIMATM ATMANSI IS-NR    Active   ALMINH
1212  024-001-000    TSM    SCCP    IS-NR    Active   ALMINH
Command Completed.

```

This identifies if removing this card will prevent gateway screening from being loaded to LIMs.

- 2 Enter the following command to remove this card from service. If this is the last TSM-GLS card in service, the **:force=yes** parameter must be specified.

rmv-card:loc=xxx

Where *xxx* is the TSM-GLS card location.

- 3 Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

- 4 Enter the following command to inhibit each OAP terminal displayed in the output from Step 3:

inh-trm:trm=x:force=yes

Card Removal/Replacement Procedures

where x is the terminal number assigned as type OAP.

- 5 Remove the TSM-GLS card, per the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52. Place the new TSM-GLS card into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 6 Enter the following command to begin downloading gateway screening (GWS) data to the new TSM-GLS card:

rst-card:loc=xxxx

Where $xxxx$ is the card location.

- 7 Enter the following command to verify the successful download of GWS data and to verify that the new card has returned to service:

rept-stat-card

The following is an example of the possible output.

```
RLGHNCXA03W 98-02-04 12:57:21 EST EAGLE 34.0.0
CARD  VERSION      TYPE   APPL    PST      SST      AST
1113  024-102-000    MASP   OAM     IS-NR    Active   -----
1114  -----        TDM    ----- IS-NR    Active   -----
1115  -----        MASP   OAM     OOS-MT   Isolated -----
1116  -----        TDM    ----- OOT-MT   Isolated -----
1117  -----        MDAL   ----- IS-NR    Active   -----
1201  024-102-000    LIM0CU CCS7ITU IS-NR    Active   -----
1202  024-001-000    LIMDS0 CCS7ITU IS-NR    Active   M BIP ERR
1203  024-001-000    LIMDS0 SS7ANSI IS-NR    Active   -----
1205  024-001-000    LIMDS0 CCS7ITU IS-NR    Active   M BIP ERR
1207  024-001-000    LIMATM ATMANSI IS-NR    Active   -----
1211  024-001-000    LIMATM ATMANSI IS-NR    Active   ALMINH
1212  024-001-000    TSM    SCCP    IS-NR    Active   ALMINH
Command Completed.
```

- 8 Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where x is the terminal number of the inhibited OAP terminal.

Database Services Module (DSM) - VSCCP

Description

DSM (Figure A-14) cards are related to the TSM/DCM family, but differ by having an AMD K-6 processor and from 1 to 4 GB of memory on an applique board. The DSM card also differs from the TSM cards by having ethernet ports. The DSMs run a version of the SCCP application that has been ported to the VxWorks OS. To differentiate the DSM-VxWorks-SCCP from the SCCP that runs on the TSM cards, the DSM version has been named VSCCP. The extra memory is required to hold a copy of the RTDB. Ethernet ports are required to connect to the EPAP to download the RTDB. Multiple DSMs are used to provide a means of load balancing in high-traffic situations. Each DSM contains an identical database. Furthermore, the DSM RTDBs need to be identical to the one maintained by the EPAPs.

Procedure - DSM-VSCCP Card Replacement

NOTE: If there are provisioning scripts, such as LARG data, the DSM-VSCCP replacement activity should be coordinated with the DB/Admin operations to avoid extended provision otherwise RADB resets may occur.

- 1 Enter the following command to determine which cards are in service. This will indicate which link interface modules (LIMs) will be affected by removal of the DSM card.

```
rept-stat-card:loc=xxxx
```

Where *xxxx* is the DSM-VSCCP card location.

- 2 Enter the following command to determine the number of DSM-VSCCP cards in service providing GTT.

```
rept-stat-sccp
```

The following is an example of the possible output.

```
RLGHNCXA03W 98-02-04 15:10:19 EST EAGLE 34.0.0
SCCP SUBSYSTEM REPORT IS-NR Active -----
GSM SUBSYSTEM REPORT IS-NR Active -----
INP SUBSYSTEM REPORT IS-ANR Restricted -----
ASSUMING MATE'S LOAD
INPQS: SSN STATUS = Allowed MATE SSN STATUS = Prohibited

SCCP Cards Configured= 4 Cards IS-NR= 2 Capacity Threshold = 100%
CARD VERSION PST SST AST MSU USAGE CPU USAGE
-----
--
1212 103-001-000 IS-NR Active ALMINH 45% 30%
1301 P 103-001-000 IS-NR Active ----- 35% 40%
1305 ----- OOS-MT Isolated ----- 0% 0%
2112 ----- OOS-MT-DSBLD Manual ----- 0% 0%
-----
--
SCCP Service Average MSU Capacity = 40% Average CPU Capacity = 35%
```

Card Removal/Replacement Procedures

AVERAGE CPU USAGE PER SERVICE:

GTT = 15% GFLEX = 5% GPORT = 10%
INPMR = 2% INPQS = 3%

TOTAL SERVICE STATISTICS:

SERVICE	SUCCESS	ERRORS	WARNINGS	FORWARD TO GTT	TOTAL
GTT:	1995	5	-	-	2000
GFLEX:	500	1	4	10	515
GPORT:	800	0	2	3	805
INPMR:	50	5	0	15	70
INPQS:	499	1	-	-	500

Command Completed.

NOTE: After determining the number of DSM-VSCCP cards ensure there will be enough DSM-VSCCP cards still In-Service Normal (IS-NR) to handle ongoing traffic before replacing a DSM-VSCCP card.

- 3 Enter the following command to remove the DSM-VSCCP card from service. If this is the last DSM-VSCCP card in service, the **:force=yes** parameter must be specified.



CAUTION: Removing/inhibiting the last IS-NR DSM-VSCCP card will cause an SCCP outage on the affected node. Before removing the last IS-NR DSM-VSCCP card from service, ensure the mated STP DSM-VSCCP cards are IS-NR and capable of supporting the rerouted SCCP traffic.

rmv-card:loc=xxxx

Where *xxxx* is the DSM-VSCCP card location.

- 4 Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

- 5 Enter the following command to inhibit each OAP terminal displayed in the output from Step 4:

inh-trm:trm=x:force=yes

where *x* is the terminal number assigned as type OAP.

NOTE: Inhibiting the OAP terminal before removing a DSM-VSCCP card ensures the system will not accept any database updates from the SEAS System via the OAP which may cause database problems.

- 6 Remove the DSM-VSCCP card, per the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52. Place the new DSM-VSCCP card into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12.)

- 7 Enter the following command Use the **rst-card** command to return the DSM-VSCCP card into service. This causes the MASP to begin downloading tables to the new DSM-VSCCP card.

rst-card:loc=xxxx

Where *xxxx* is the DSM-VSCCP card location.

This causes the MASP to begin downloading tables to the new DSM-VSCCP card. When the card has been successfully loaded (there will be a response on the terminal that downloading is complete). This can take up to 4 hours.

- 8 Enter the following command to verify the card is operational and providing SCCP services.

rept-stat-sccp

The following is an example of the possible output.

```

RLGHNCXA03W 98-02-04 15:10:19 EST EAGLE 34.0.0
SCCP SUBSYSTEM REPORT IS-NR Active -----
GSM SUBSYSTEM REPORT IS-NR Active -----
INP SUBSYSTEM REPORT IS-ANR Restricted -----
    ASSUMING MATE'S LOAD
    INPQS: SSN STATUS = Allowed    MATE SSN STATUS = Prohibited

SCCP Cards Configured= 4 Cards IS-NR= 2 Capacity Threshold = 100%
CARD  VERSION      PST      SST      AST      MSU USAGE  CPU USAGE
-----
--
1212  103-001-000  IS-NR      Active    ALMINH    45%        30%
1301 P 103-001-000  IS-NR      Active    -----    35%        40%
1305  -----    OOS-MT     Isolated  -----    0%         0%
2112  -----    OOS-MT-DSBLD Manual    -----    0%         0%
-----
--
SCCP Service Average MSU Capacity = 40%    Average CPU Capacity = 35%

AVERAGE CPU USAGE PER SERVICE:
GTT  = 15%  GFLEX = 5%  GPORT = 10%
INPMR = 2%  INPQS = 3%

TOTAL SERVICE STATISTICS:
SERVICE  SUCCESS  ERRORS  WARNINGS  FORWARD TO GTT  TOTAL
GTT:      1995    5       -         -              2000
GFLEX:    500     1       4         10             515
GPORT:    800     0       2         3              805
INPMR:    50      5       0         15             70
INPQS:    499     1       -         -              500

Command Completed.

```

- 9 Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where *x* is the terminal number of the inhibited OAP terminal.

Application Communications Module (ACM)

Description

The ACM (Figure A-13) provides access to a remote host for use by the STP LAN feature. The application communication module (ACM) consists of a 80486-based main assembly and an ethernet applique. Connection to a host is achieved through an ethernet LAN using the TCP/IP protocol.

If this card is removed, the TCP/IP data link supported by this card becomes out of service. Any data to be transmitted to the remote TCP/IP host connected by this TCP/IP data link is lost.

Procedure - ACM Card Replacement

- 1 Enter the following command to determine what TCP/IP data links are configured:

```
rept-stat-card
```

- 2 Enter the following command to determine the status of the TCP/IP data link assigned to the card to be replaced:

```
rept-stat-dlk
```

The following is an example of the possible output.

```
RLGHNCXA03W 98-09-27 17:00:36 EST EAGLE 34.0.0
DLK          PST          SST          AST
1104         IS-NR         Avail         ----
1206         IS-NR         Avail         ALMINH
Command Completed.
```

- 3 If the status of the TCP/IP data link is not out of service - maintenance disabled (OOS-MT-DSBLD), use the **canc-dlk** command to change the status of the TCP/IP data link to OOS-MT-DSBLD.

```
canc-dlk:loc=xxxx
```

Where *xxxx* is the card location.

- 4 Enter the following command to inhibit the card and disconnect it from the IMT bus. If this is the last ACM in the system, the **:force=yes** parameter must be used with this command.

```
rmv-card:loc=xxxx
```

Where *xxxx* is the card location.

- 5 Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

- 6 Enter the following command to inhibit each OAP terminal displayed in the output from Step 5:

```
inh-trm:trm=x:force=yes
```

where x is the terminal number assigned as type OAP.

- 7 Remove the ACM, per the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52. Place the new ACM into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 8 Enter the following command to put the new ACM card back into service and connect it to the IMT bus:

rst-card:loc=xxxx

where $xxxx$ = card location.

- 9 Enter the following command to return the TCP/IP data link to service:

act-dlk:loc=xxxx

where $xxxx$ = card location.

- 10 Enter the following command to verify the status of the card and its associated TCP/IP data link:

rept-stat-card

- 11 Enter the following command to verify that the TCP/IP data link has returned to full service:

rept-stat-dlk

The following is an example of the possible output.

```
RLGHNCXA03W 98-09-27 17:00:36 EST EAGLE 34.0.0
DLK          PST          SST          AST
1104         IS-NR        Avail        ----
1206         IS-NR        Avail        ALMINH
Command Completed.
```

- 12 Enter the following command to return the OAP terminals to the in-service state:

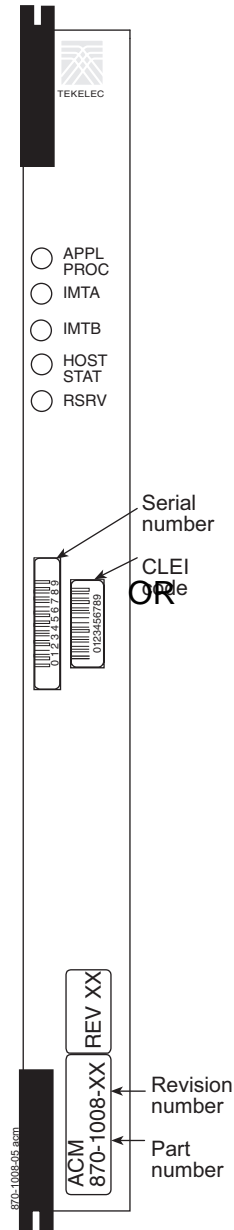
alw-trm:trm=x

where x is the terminal number of the inhibited OAP terminal.

Card Removal/Replacement Procedures

ACM, Application Communications Module

Figure A-13.ACM LEDs



LEDs	Descriptions
APPL PROC - Applications Processor Status	<p>RED - Application processor is not running or is failing diagnostics.</p> <p>AMBER - ACM is loading an application or is being polled (may be prevented from loading by maintenance out of service condition).</p> <p>GREEN - ACM is running an application.</p> <p>RED/GREEN - Operational, no communication with the MASP.</p>
IMT A - IMT Bus A Status	<p>RED - ACM is off IMT bus A.</p> <p>AMBER - ACM is on IMT bus A, but testing is not complete.</p> <p>GREEN - ACM is on IMT bus A.</p> <p>BLANK - Communication processor is not operating.</p>
IMT B - IMT Bus B Status	<p>RED - ACM is off IMT bus B.</p> <p>AMBER - ACM is on IMT bus B, but testing is not complete.</p> <p>GREEN - ACM is on IMT bus B.</p> <p>BLANK - Communication processor is not operating.</p>
HOST STAT - Host Status	<p>RED - Host is not available.</p> <p>GREEN - Host is available.</p>
RSRV - Reserved	Not currently used.

Database Communications Module (DCM) and EDCM/EDCM-A

Description

The database communication module (DCM) (Figure A-14) provides access to a remote host for use by the STP LAN feature. The DCM consists of a 80486-based main assembly and an ethernet applique. Connection to a host is achieved through an ethernet LAN using the TCP/IP protocol.

If this card is removed, the TCP/IP data link supported by this card becomes out of service. Any data to be transmitted to the remote TCP/IP host connected by this TCP/IP data link is lost.

The DCM can only be inserted in the odd numbered card slots of the shelf. Slot 09 of each shelf contains the IPMX card; thus the DCM cannot be inserted in slot 09. The DCM can be inserted in the control shelf, but only in slots 01, 03, 05, 07, and 11. Slots 13, 15, and 17 refer to the extension shelf only. The DCM occupies two card slots, so the even numbered card slot adjacent to the odd numbered slot where the DCM has been inserted must be empty as shown in Table A-1. The DCM is connected to the network through the odd numbered card slot connector.

Table A-1. DCM Card Locations

Location of the DCM	Empty Card Location	Location of the DCM	Empty Card Location
Slot 01	Slot 02	Slot 11	Slot 12
Slot 03	Slot 04	Slot 13	Slot 14
Slot 05	Slot 06	Slot 15	Slot 16
Slot 07	Slot 08	Slot 17	Slot 18

The Double-Slot Enhanced Database Communications Module is a version of the DCM that includes more main memory and better processing performance. The double-slot EDCM/EDCM-A can be placed in any slot odd or even that is provisioned. Physically the next higher slot can not be provisioned for a card because of the double-slot EDCM/EDCM-A card width.

The Single-Slot EDCM/EDCM-A (Figure A-15) is a version of the EDCM which requires only a single frame slot. It can be placed in any slot, odd or even, which has been provisioned for DCM. Otherwise it duplicates the performance of the Double-Slot EDCM/EDCM-A.

Procedure - DCM and EDCM/EDCM-A Card Replacement

- 1 Enter the following command to determine what TCP/IP data links are configured:
rept-stat-card

- 2 Enter the following command to determine the status of the TCP/IP data link assigned to the card to be replaced:
rept-stat-dlk

Card Removal/Replacement Procedures

The following is an example of the possible output.

```
RLGHNCXA03W 97-09-27 17:00:36 EST EAGLE 34.0.0
DLK      PST      SST      AST
1104    IS-NR    Avail    ----
1206    IS-NR    Avail    ALMINH
Command Completed.
```

- 3 If the status of the TCP/IP data link is not out of service - maintenance disabled (OOS-MT-DSBLD), use the **canc-dlk** command to change the status of the TCP/IP data link to OOS-MT-DSBLD.

canc-dlk:loc=xxxx

Where *xxxx* is the card location.

- 4 Enter the following command to inhibit the card and disconnect it from the IMT bus. If this is the last DCM in the system, the **:force=yes** parameter must be used with this command.

rmv-card:loc=xxxx

Where *xxxx* is the card location.

- 5 Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

- 6 Enter the following command to inhibit each OAP terminal displayed in the output from Step 5:

inh-trm:trm=x:force=yes

where *x* is the terminal number assigned as type OAP.

- 7 Remove the DCM, per the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52. Place the new DCM into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 8 Enter the following command to put the new DCM card back into service and connect it to the IMT bus:

rst-card:loc=xxxx

where *xxxx* = card location.

- 9 Enter the following command to return the TCP/IP data link to service:

act-dlk:loc=xxxx

where *xxxx* = card location.

- 10 Enter the following command to verify the status of the card and its associated TCP/IP data link:

rept-stat-card

- 11 Enter the following command to verify that the TCP/IP data link has returned to full service:

rept-stat-dlk

The following is an example of the possible output.

```

RLGHNCXA03W 97-09-27 17:00:36 EST EAGLE 34.0.0
DLK    PST      SST      AST
1104   IS-NR    Avail    ----
1206   IS-NR    Avail    ALMINH
Command Completed.
    
```

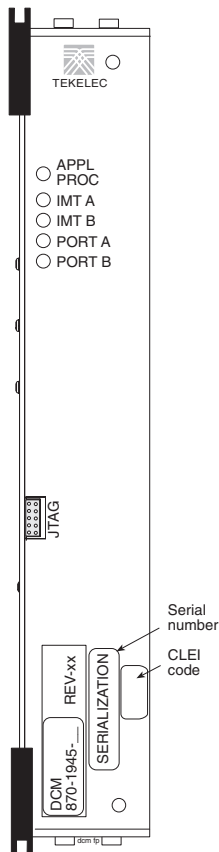
- 12 Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where *x* is the terminal number of the inhibited OAP terminal.

DCM, Database Communications Module; DSM, Database Service Module

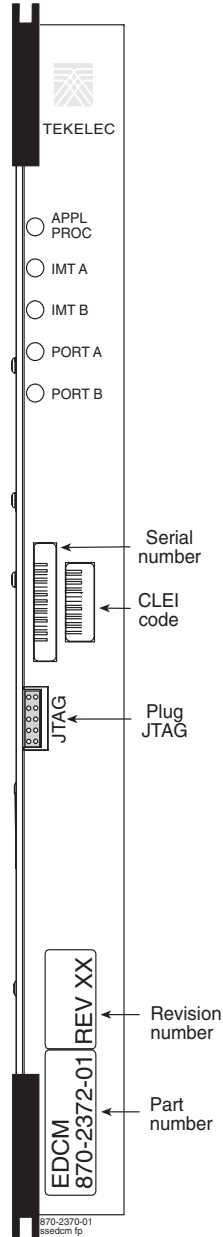
Figure A-14.DCM LEDs



LEDs	Descriptions
APPL PROC	RED – Critical alarm condition detected. GREEN – No alarm
IMT A	RED – Major alarm condition detected. GREEN – No alarm
IMT B	AMBER – Minor alarm condition detected. GREEN – No alarm
PORT A	GREEN – PORT A is the active PORT. RED – PORT A is inactive
PORT B	GREEN – PORT B is the active PORT. RED – PORT B is inactive.

EDCM and EDCM-A (Single-Slot), Enhanced Database Communications Module (Single-Slot)

Figure A-15.EDCM and EDCM-A Single-Slot LEDs



LEDs	Descriptions
APPL PROC	RED – Critical alarm condition detected. GREEN – No alarm
IMT A	RED – Major alarm condition detected. GREEN – No alarm
IMT B	AMBER – Minor alarm condition detected. GREEN – No alarm
PORT A	GREEN – PORT A is the active PORT. RED – PORT A is inactive
PORT B	GREEN – PORT B is the active PORT. RED – PORT B is inactive.

Terminal Disk Module (TDM)/TDM-GTI

Description

This procedure is to replace a TDM which is part of a MASP, comprised of a GPSM II and a TDM. Before the TDM is replaced, it must be verified that the TDM belongs to the standby MASP (verify the TDM to be replaced is the STDBY TDM and MASP).

The TDM (Figure A-16) contains the fixed disk drive, the terminal processor for the 16 serial I/O ports, and an interface to the maintenance disk and alarm (MDAL) card. This procedure will replace the standby TDM.

Procedure - TDM/TDM-GTI Card Replacement

- 1 Before beginning this procedure, make sure there is a copy of the current release GPLs on a removable cartridge on-hand.
-

- 2 Enter the following command to display the card status:

rept-stat-card

The following is an example of the possible output.

```

RLGHNCXA03W 03-08-18 12:57:21 EST EAGLE 34.0.0

CARD   VERSION      TYPE      APPL      PST      SST      AST
1109   125-016-000   HMUX     BPHMUX    IS-NR    Active   -----
1110   125-016-000   HMUX     BPHMUX    IS-NR    Active   -----
1113   125-020-000   GPSM     EOAM      IS-NR    Standby  -----
1114   -----      TDM      -----   IS-NR    Active   -----
1115   125-020-000   GPSM     EOAM      IS-NR    Active   -----
1116   -----      TDM      -----   IS-NR    Active   -----
1117   -----      MDAL     -----   IS-NR    Active   -----
1209   125-016-000   HMUX     BPHMUX    IS-NR    Active   -----
1210   125-016-000   HMUX     BPHMUX    IS-NR    Active   -----
1301   125-020-000   LIME1    SS7ANSI   IS-NR    Active   -----
1303   125-020-000   LIME1    CCS7ITU   IS-NR    Active   -----
1305   125-020-000   LIME1    SS7ANSI   IS-NR    Active   -----
1307   125-020-000   LIME1    CCS7ITU   IS-NR    Active   -----
1309   125-016-000   HIPR     HIPR      IS-NR    Active   -----
1310   023-018-006   HIPR     HIPR      IS-NR    Active   -----

```

;

In this sample output, 1113/1114 are standby and 1115/1116 are active. Perform Step 4 only if the card to be replaced is not **standby**.

- 3 From the output of the rept-stat-card command, executed in Step 2, determine the MASP activity.

Record which GPSM is **Active** and **Standby**.

Record the card locations of both sets of GPSMs and TDMs.

Card Removal/Replacement Procedures

Card	Location
Active GPSM	
Active TDM	
Standby GPSM	
Standby TDM	

-
- 4 Verify card to be replaced (failing or non-failing) is **standby** before continuing. If the card is failing it should already be **standby**. Enter the following commands to verify the database and force the active GPSM-II card to become Standby:

rept-stat-db:display=all

Verify all the cards in the system have the same database count. If the counts do not match, contact the *Customer Care Center*, see page 1-12.

init-card:loc=x

where *x* is the card location (1113 or 1115) from Step 2.

- 5 If Step 4 was performed, execute the **rept-stat-card** command and verify if the card to be replaced is part of the **standby** MASP.
-

- 6 If a failing TDM card is to be replaced, perform a database backup before replacing the failed card. Insert the removable cartridge with the current release GPLs into the MDAL. Using Procedure 2-5 *Backing Up the Database* on page 2-17, create a backup of the database on the removable cartridge. Then go to Step 8.



WARNING: Do not proceed to Step 8 if the backup fails. contact the Customer Care Center, see page 1-12.

- 7 If a non-failing TDM card is to be replaced, insert the removable cartridge containing the copy of the current release GPLs into the MDAL.
-

- 8 Enter the following command to retrieve the terminal types and terminal numbers:

rtrv-trm

NOTE: Step 9 through Step 11 are only necessary for OAP based EAGLE 5 ISSs.

- 9 Enter the following command to inhibit each OAP terminal displayed in the output from Step 8:

inh-trm:trm=x

where *x* is the terminal number.

- 10 Enter the following command for each terminal inhibited in Step 9 to temporarily change the terminal type from OAP to *none*:

chg-trm:trm=x:type=none

where *x* is the terminal number.

- 11 Enter the following command to verify that the databases in the current (FD CRNT) and the backup (FD BKUP) partitions of the active MASP match:

rept-stat-db:display=version

The following is an example of the possible output.

```

RLGHNCXA03W 03-08-27 03:46:39 EST EAGLE 34.0.0
DATABASE STATUS: >> OK <<
      TDM 1114 ( ACTV )                TDM 1116 ( STDBY )
      C  LEVEL    TIME LAST BACKUP    C  LEVEL    TIME LAST BACKUP
-----
FD BKUP Y      43 03-08-14 03:02:18 EST Y      43    03-08-14 03:02:18 EST
FD CRNT Y      79
      MDAL 1117
      - - - - -
RD BKUP Y      1    -    -

```

CARD/APPL	LOC	C	T	LEVEL	TIME LAST UPDATE	VERSION	STATUS
TDM-CRNT	1114	Y	N	79	03-08-27 00:56:30	121-000-000	NORMAL
TDM-BKUP	1114	Y	-	43	03-08-14 01:10:46	121-000-000	NORMAL
TDM-CRNT	1116	Y	N	79	03-08-27 00:56:30	121-000-000	NORMAL
TDM-BKUP	1116	Y	-	43	03-08-14 01:10:46	121-000-000	NORMAL
MDAL	1117	Y	-	79	03-08-27 00:56:30	121-000-000	NORMAL

- 12 Compare the **VERSION STATUS** of the TDM cards in the output of the previous step.

- If they are identical, continue to the next step.
- If they are not the same, go to Step 21

- 13 Enter the following command to show the version numbers of the GPLs stored on each fixed disk (TDM).

rtrv-gpl

The following is an example of the possible output.

```

RLGHNCXA03W 03-08-27 03:46:48 EST EAGLE 34.0.0
GPL Auditing ON

```

APPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE TRIAL
EOAM	1114	121-002-000	121-002-000	121-002-000	121-002-000
EOAM	1116	121-002-000	121-002-000	121-002-000	-----
SS7ANSI	1114	121-002-000	121-002-000	121-002-000	121-002-000
SS7ANSI	1116	121-002-000	121-002-000	121-002-000	-----
SCCP	1114	121-002-000	074-002-005 ALM	121-002-000	121-002-000
SCCP	1116	121-002-000	121-002-000	121-002-000	-----
GLS	1114	121-002-000	121-002-000	121-002-000	121-002-000
GLS	1116	121-002-000	121-002-000	121-002-000	-----
MPLG	1114	121-002-000	121-002-000	121-002-000	151-002-000
MPLG	1116	121-002-000	121-002-000	121-002-000	-----

Card Removal/Replacement Procedures

14 Examine the output of the previous step.

- If any card shows an alarm (ALM), go to Step NOTE: .
 - If no alarms are displayed, continue with Step 15.
-

15 Enter the following command to verify that the security log on the standby MASP contains no entries that must be copied to the FTA area of the fixed disk:

rept-stat-seculog

The following is an example of the possible output.

```
RLGHNCXA03W 96-10-04 15:59:06 EDT EAGLE 34.0.0
-- SINCE LAST UPLOAD -- OLDEST NEWEST LAST
LOC  ROLE   ENTRIES %FULL OFLO FAIL RECORD  RECORD  UPLOAD
1114 Active  8312    84   No   No   95-08-12 96-01-04 96-12-16
                                     11:23:56 15:59:06 14:02:22

1116 Standby 693     7    No   No   95-09-12 95-09-30 95-09-30
                                     11:24:12 14:00:06 14:02:13
```

- If the number shown in the *ENTRIES* field for the standby MASP (shown with the entry *Standby* in the *ROLE* field) is 0, go to Step 17.
 - If the number shown in the *ENTRIES* field for the standby MASP is greater than 0, these entries must be copied to the FTA area of the fixed disk. To copy these entries, go to the next step.
-

16 Copy the security log entries on the standby MASP to the FTA area on the fixed disk using the following command.

copy-seculog

The following is an example of the message that should appear (the **copy-seculog:slog=stb** command was used).

```
RLGHNCXA03W 96-10-04 15:59:06 EDT EAGLE 34.0.0
Security log on TDM 1116 copied to file 961004s.log on TDM 1114
```

17 Replace the Standby TDM, according to the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52.

- Unseat the standby GPSM card determined in Step 8.
- Remove the standby TDM card determined in Step 8.
- Insert the spare TDM card.
- Re-seat the standby GPSM card.

NOTE: UAMs are generated during this step. An audible alarm is generated. Wait for the standby GPSM/spare TDM to come up to standby mode.

18 Enter the following command to display the status of the standby GPSM:

rept-stat-card:loc=xxxx

where *xxxx* is the standby GPSM from the output recorded in Step 8.

The following is an example of the possible output.

```

RLGHNCXA03W 03-08-18 13:10:21 EST EAGLE 34.0.0
CARD VERSION          TYPE    APPL    PST      SST      AST
xxxx  xxx-xxx-xxx    GPSPM  EAOM    IS-NR    Standby  DB-DIFF
  ALARM STATUS        = No Alarms.
  IMT  VERSION        = 025-015-000
  PROM VERSION        = 023-002-000
  IMT BUS A           = Conn
  IMT BUS B           = Conn
Command Completed.

```

NOTE: Verify that backup goes to IS-NR status.

- 19 Enter the following command to retrieve GPL versions:

rtrv-gpl

The following is an example of the possible output.

```

RLGHNCXA03W 03-08-27 03:46:48 EST EAGLE 34.0.0
GPL Auditing ON

APPL    CARD  RELEASE    APPROVED    TRIAL    REMOVE TRIAL
EOAM    1114  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  -----
EOAM    1116  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx
SS7ANSI 1114  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  -----
SS7ANSI 1116  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx
SCCP    1114  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  -----
SCCP    1116  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx
GLS     1114  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  -----
GLS     1116  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx
MPLG   1114  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  -----
MPLG   1116  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx  xxx-xxx-xxx

```

- 20 Enter the following command to repair the standby's TDM database.

chg-db:action=repair

NOTE: The system requires approximately two minutes after Step 18 to acquire duplex mode. As a result the system will reject the chg-db:action= repair until duplex operation fully returns.

The following is an example of the possible output.

```

RLGHNCXA03W 03-08-27 03:46:49 EST EAGLE 34.0.0
chg-db:action=repair
Command entered at terminal #10.
;

```

```

RLGHNCXA03W 03-08-27 03:46:50 EST EAGLE 34.0.0
REPAIR: MASP A - Repair starts on standby MASP.
;

```

NOTE: Observe that the command execution time may require approximately 20 to 45 minutes.

```

RLGHNCXA03W 03-08-27 04:15:22 EST EAGLE 34.0.0
REPAIR: MASP A - Repair from fixed disk complete.
;

```

Card Removal/Replacement Procedures

Wait for the 'repair complete' message to display and for the to MASP return to in-service status.

When the 'repair complete' message has displayed, proceed to Step 26

NOTE: Perform this step only if you are coming from Step 12 or Step 14

- 21 Enter the following command to verify whether measurement collection is on or off:

rtrv-meas-sched

The following is an example of the possible output. The *COLLECT* field shows whether measurement collection is on or off. In this example, measurement collection is on.

```
RLGHNCXA03W 95-04-03 12:22:55 EST EAGLE 34.0.0
COLLECT      = on
-----
SYSTOT-STP   = off
SYSTOT-TT    = off
SYSTOT-STPLAN = on
COMP-LNKSET  = off
COMP-LINK    = on
MTCD-STP     = on
MTCD-LINK    = on
MTCD-STPLAN  = on
```

- If measurement collection is on, continue with Step 22.
 - If measurement collection is off, proceed to Step 23.
-

- 22 Enter the following command to inhibit all measurements:

chg-meas:collect=off



CAUTION: Measurements must be inhibited or the copy-disk command cannot be executed. The chg-meas:collect=on command should not be executed while the copy-disk command is in progress. When measurements are inhibited, measurement collection is stopped. For the entire period of time when measurements are inhibited, those measurements will be lost. If possible do not inhibit measurements at midnight since doing so can result in the loss of measurements for an entire day.

The following message should appear.

```
RLGHNCXA03W 94-02-07 16:12:50 EST EAGLE 34.0.0
CHG-MEAS: MASP A - COMPLTD
```

- 23 Replace the Standby TDM, according to the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52.

- Unseat the standby GPSM card determined in Step 8.
- Remove the standby TDM card determined in Step 8.
- Insert the spare TDM card.
- Re-seat the standby GPSM card.

NOTE: UAMs are generated during this step. An audible alarm is generated. Wait for the standby GPSM/spare TDM to come up to standby mode.

- 24 Enter the following **copy-disk** command along with the card location of the standby TDM (shown by the indicator *STDBY* in the **rept-stat-db** command output in Step 11) that the data is being copied to. This command can take from 33 minutes to 1 hour 46 minutes to execute. It can take even longer depending on other system activity in progress when this command is entered.

copy-disk:dloc=xxx:format=no

Where *xxx* is the card location of the standby TDM.

The following is an example of the message that should appear when the command has executed and completed. For this example, the **copy-disk:dloc=1116** command was entered.

```
Copy-disk (fixed): from active (1114) to standby (1116) started.
Extended processing required, please wait.
```

```
Copy-disk (fixed): from active (1114) to standby (1116) completed.
Measurements collection may be turned on now if desired.
```

The standby MASP is rebooted to load the data when the command completes successfully.

NOTE: While this command is executing, commands that affect the database configuration cannot be executed. Any attempt to execute such a command will be rejected.

- 25 If measurement collection was turned off in Step 22, enter the following command to turn on the measurements:

chg-meas:collect=on

The following message should appear.

```
RLGHNCXA03W 94-02-07 16:12:50 EST EAGLE 34.0.0
CHG-MEAS: MASP A - COMPLTD
```

- 26 Enter the following command to verify that the database counts of both MASPs.

rept-stat-db:display=all

- 27 After the card has been reloaded (a message appears to confirm completion of the load), enter the following command to verify the database is consistent (same level as the other cards in the system).

rept-stat-card

- 28 Enter the following command to restore the OAP terminals changed in Step 10:

chg-trm:trm=x:type=oap

where *x* is the terminal number.

Card Removal/Replacement Procedures

- 29 Enter the following command to return the OAP terminals inhibited in Step 9 to the in-service state:

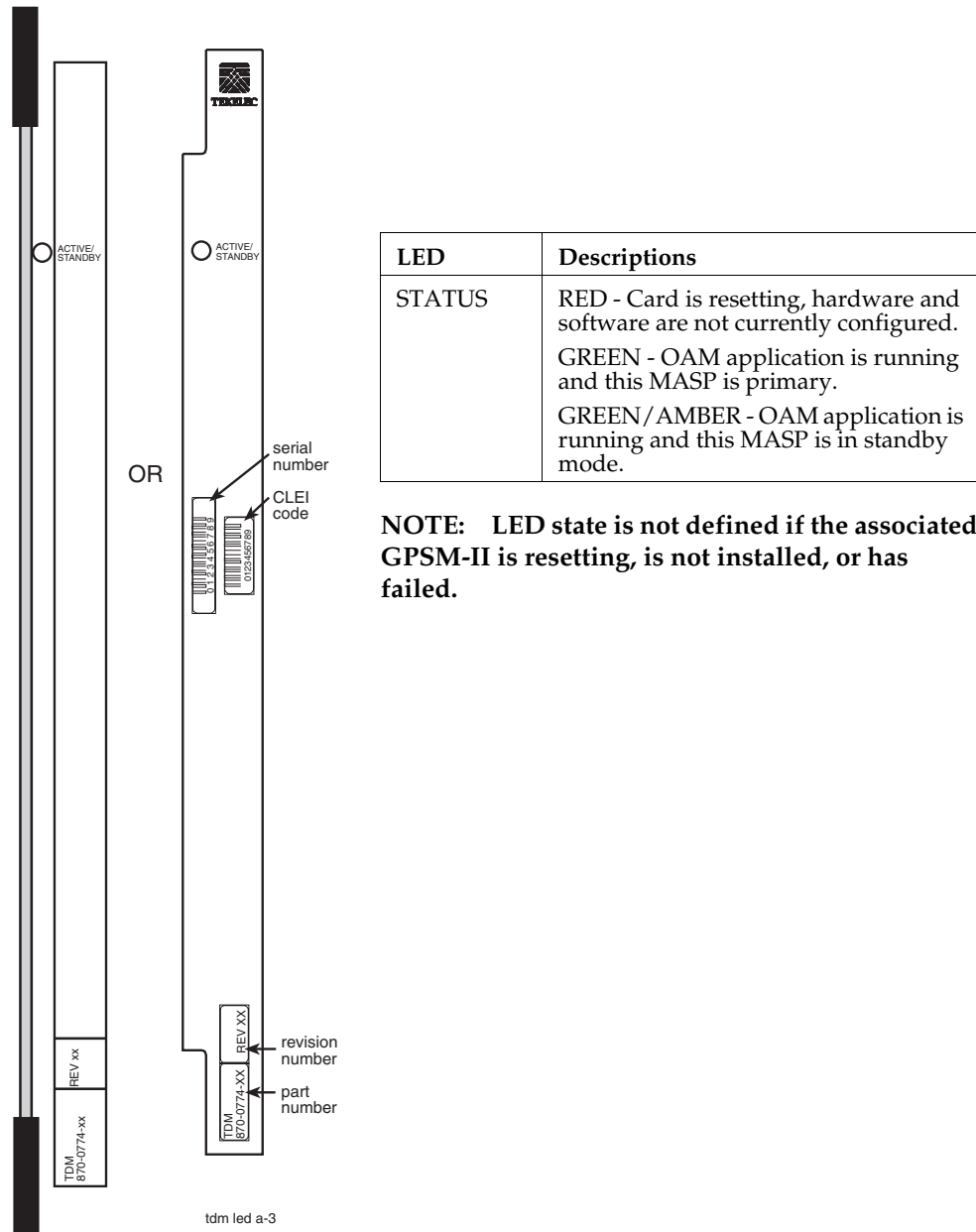
alw-trm:trm=x

where *x* is the terminal number.

TDM-GTI, Terminal Disk Module-Global Timing Interface

The Terminal Disk Module supports Global Timing Interface (TDM-GTI).

Figure A-16.TDM LED



Measurement Collection and Polling Module (MCPM)

The primary MCPM card performs all measurements collection and reporting functions and provides on-card RAM storage for collected data and scheduled reports. The Secondary MCPM provides a redundant backup for the Primary card, and assumes collection and reporting responsibilities on the loss of the Primary. TCP/IP connections are used to deliver measurement reports from the Primary MCPM card to the customer via an FTP client. The FTP configuration can be customized to support automatic transfer of scheduled reports from the client to the server.

Procedure - MCPM Card Replacement

- 1 Enter the following command to determine the status of the MCPM cards.

rept-stat-meas

- 2 Enter the following command to remove the faulty MCPM card from service. If this is the last MCPM card in service, the **:force=yes** parameter must be specified.

rmv-card:loc=xxxx

Where *xxxx* is the MCPM card location.

- 3 Remove the MCPM card, per the card replacement procedure described in the section titled *Replacing a Card in the EAGLE 5 ISS* on page A-52. Place the new MCPM card into its place. Be sure the revision numbers are compatible (if in doubt, contact the *Customer Care Center*, see page 1-12).
-

- 4 Enter the following command to return the MCPM card into service. This causes the MASP to begin downloading tables to the new MCPM card.

rst-card:loc=xxxx

Where *xxxx* is the MCPM card location.

When the card has been successfully loaded (there will be a response on the terminal that downloading is complete). This can take up to 10 minutes.

NOTE: If the card has not loaded in 30 minutes, enter the `init-card` command to re-boot the MCPM card.

- 5 Enter the following command to verify the card is operational.

rept-stat-meas

Replacing a Card in the EAGLE 5 ISS

Use this procedure anytime a card is removed from the Eagle system. Failure to use this procedure may result in equipment damage. Use the procedures at the beginning of this section before physically removing any cards.

Card Removal/Replacement Procedures



WARNING: Before performing any maintenance procedures on the EAGLE 5 ISS, make sure you wear a wrist strap connected to the wrist strap grounding point of the EAGLE 5 ISS.

Before removing, reseating, or initializing a card, inhibit any OAP terminal ports that are in-service normal (IS-NR) to assure the card loads properly. No database updates or single command line entries should be made while the card is loading.

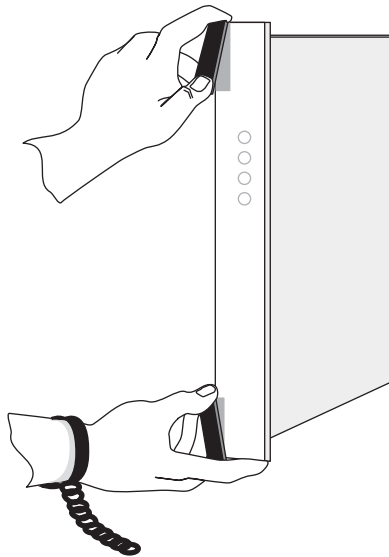


WARNING: This procedure may interrupt service. When possible, perform maintenance during low traffic and database provisioning periods, such as the maintenance window.

Procedure - Replacing a Card in the EAGLE 5 ISS

- 1 Locate the card to be removed.
- 2 Use both hands to open injector/ejector module locking tabs out from the faceplate of the card. Push the inject/eject clamps outward from the card's faceplate (top clamp in the "UP" position, bottom clamp in the "DOWN" position). Pull the levers away from the shelf until they are parallel to the floor. Gently pull the card towards you until the card clears the shelf.

Figure A-17. Push Inject/Eject Clamps Outward



- 3 Place the card you have removed in an electrostatic discharge (ESD) protective container, or place the card in the spare card storage shelf.
-

- 4 Be sure that the replacement card has the same Tekelec part number and revision number as the card you have just removed (unless this is an upgrade).
- 5 Open the ejector levers on the replacement card. Carefully align the card's edges with the top and bottom card guides. Then push the card along the length of the card guides until the rear connectors on the card engage the mating connectors on the target shelf backplane.
- 6 Press the left edge of the card's faceplate using constant pressure until you feel the card's progress cease. To ensure proper seating, the tabs must be held in the release position until the locking tabs can engage with the upper and lower flange on the shelf.



WARNING: Do not impact the faceplate in order to mate the connectors. Any impact to the card's faceplate can damage the faceplate, the pins, or the connectors.

- 7 Push in the top and bottom inject/eject clamps. This locks the card in place and ensures a strong connection with the pins on the target shelf backplane.

Figure A-18. Push in Inject/Eject Clamps



Push in the inject/eject clamps to lock the card in place.

- 8 Verify that both IMT bus LEDs are green.
- 9 Record the activity in the site maintenance log.

Replacing Cards in the Holdover Clock

Failed Clock Input (CI) Card Replacement

Description

Use this procedure to replace a failed clock input (CI) card in shelves equipped with ST3 clock cards. The input card FAIL lamp should be lit.

Procedure - Replacing a Card in the Holdover Clock

- 1 If the shelf is equipped with ST3 cards and the input card FAIL lamp is not lit, check the status of the SRC ACT/SRC ACTIVE lamp. If lit, press the transfer (XFR) button on either input card. If the input card FAIL lamp is lit, go to Step 3. The SRC ACT/SRC ACTIVE lamp on the other input card lights and the lamp goes off. Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

- 2 Enter the following command to inhibit each OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x:force=yes
```

where *x* is the terminal number assigned as type OAP.

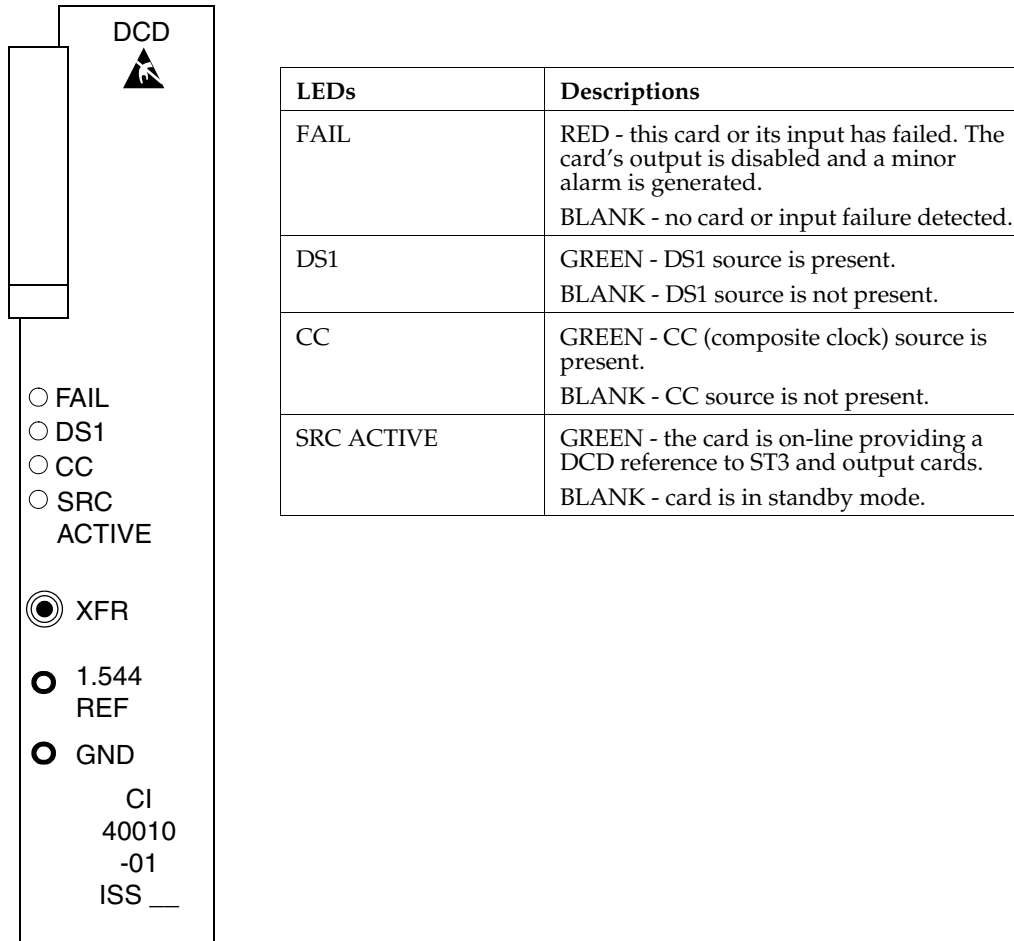
- 3 Remove the failed card or the card to be removed from the shelf.
- 4 Set the option switches on the replacement card to the correct settings. (See the *Installation Manual*.) Wait for the input card to acquire the input reference signal (about 40 seconds). Then, press the XFR button to make the new input card active.
- 5 Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where *x* is the terminal number of the inhibited OAP terminal.

CI, Clock Interface Card, Holdover Clock

Figure A-19. Holdover Clock CI Card LEDs



Non-Failed Clock Input (CI) Card Replacement

Description

Use this procedure to replace non-failed clock input (CI) cards which have valid input reference signals.

Procedure - CI Card Replacement



CAUTION: Removing a non-failed clock input card with a valid input reference signal from a shelf equipped with ST3 cards, causes the DCD system outputs to run and hit all the network elements timed from the DCD system. To properly remove a non-failed clock input card, the input reference must be removed first. This squelches the CI card output. This does not apply to failed input cards.

Card Removal/Replacement Procedures

- 1 Remove the input reference signal to the shelf associated with the clock input card to be removed. Perform one of the following:
 - a. If the reference input has a miscellaneous SYNC jack at the DSX-1, insert an open plug or the end of a patch card in the SYNC jack to squelch the input reference signal.
 - b. If the input reference has an external bridging repeater, insert an open plug or the end of a patch cord in the OUT jack at the bridging repeater to squelch the input reference signal.
 - c. If the input reference signal is directly cabled from the source to the DCD shelf, either lift the leads of the TB12 or TB13 wire-wrap terminals on the backplane of the DCD shelf, or short the tip (T) and ring (R) together at TB12 or TB13 on the backplane.



CAUTION: Use a clip cord that is no longer than two inches. A longer clip cord may not appear as a short to the CI card and the input reference may continue to drive it.

The DS1 lamp should be off and the FAIL lamp lit on the CI card. If this is not true, do not proceed. This indicates the input reference has not been removed.

- 2 Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

- 3 Enter the following command to inhibit each OAP terminal displayed in the output from Step 2:

```
inh-trm:trm=x:force=yes
```

where *x* is the terminal number assigned as type OAP.

- 4 Remove the CI card. This has no effect on the outputs.
-

- 5 Set the option switches on the replacement card to the correct settings. (See the *Installation Manual*.) The DS1 lamp should be off and the FAIL lamp lit on the CI card.
-

- 6 Restore the input reference by removing the open plug, clip cord, or reconnecting the leads to TB12 or TB13 wire-wrap terminals on the DCD shelf backplane.
-

- 7 Wait for the input card to acquire the input reference signal (about 40 seconds). If you want the new CI card to be active, press the XFR button.
-

- 8 Enter the following command to return the OAP terminals to the in-service state:

```
alw-trm:trm=x
```

where *x* is the terminal number of the inhibited OAP terminal.

ST3 Card Replacement

Description

Use this procedure to replace ST3 cards. The only time an ST3 card should be replaced is if the FAIL lamp is lit, or if it is in the ST A slot and the LOCK or LOCK and FAIL lamps are not lit and the network elements receiving timing from the shelf are reporting slips. (However, the second condition is more likely a timing loop rather than a bad ST3 card.)

NOTE: The ST3 card in slot B (ST B) in shelves equipped with ST3 clock cards may be removed from the shelf without any negative effect to the output, regardless if the ST3 has failed. If an ST3 is installed and not failed in slot A (ST A), it is the preferred source for the output cards. If you remove the card from the shelf, it may cause a hit to the outputs.

Procedure - ST3 Card Replacement

- 1 Enter the following command to retrieve the terminal types and port numbers:

```
rtrv-trm
```

- 2 Enter the following command to inhibit each OAP terminal displayed in the output from Step 1:

```
inh-trm:trm=x:force=yes
```

where x is the terminal number assigned as type OAP.

- 3 Remove the ST3 card from the shelf. If it is in slot A and has not failed, the ST B clock card automatically become the preferred source for the outputs. The TO cards ST and INPUT lamps should remain green.

NOTE: There may be a one-time phase hit to the outputs. If ST A has failed, the ST B clock card is already the preferred source for the outputs. If ST B is being replaced, it is in standby and may be removed without negative effect to the outputs.

- 4 Insert the replacement card in the shelf. Lock it into place by rotating the locking lever downward. The FAIL lamp should remain lit until it has acquired the frequency and phase of the input reference signal and then go off (about one minute). If ST A is being replaced, it automatically becomes the preferred source for the output when the FAIL and LOCK lamps go off. The TO cards ST and INPUT lamps should remain lit.

NOTE: If you are replacing both ST3 cards, allow five minutes for the first card to stabilize before replacing the other.

- 5 Enter the following command to return the OAP terminals to the in-service state:

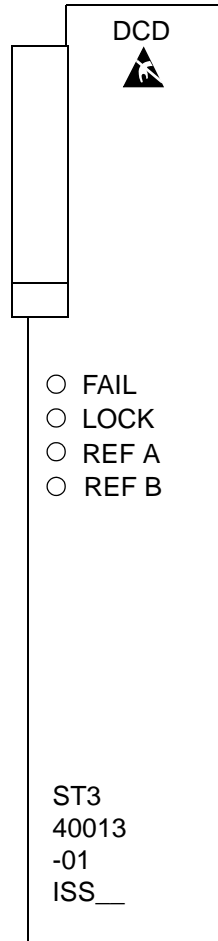
```
alw-trm:trm=x
```

where x is the terminal number of the inhibited OAP terminal.

Card Removal/Replacement Procedures

ST3 P/N 804-0173-01

Figure A-20. Holdover clock ST3 card LEDs



LEDs	Descriptions
FAIL	RED - this card has failed. BLANK - no card failure detected.
LOCK	RED - input has failed. BLANK - no input failure detected.
REF A	GREEN - card is tracking the output of clock input card A. BLANK - not tracking output of clock input card A.
REF B	GREEN - card is tracking the output of clock input card B. BLANK - not tracking output of clock input card B.

NOTE: If the FAIL and LOCK LEDs are both illuminated, the ST3 is in holdover mode and the card has not failed.

MIS Card Replacement

Description

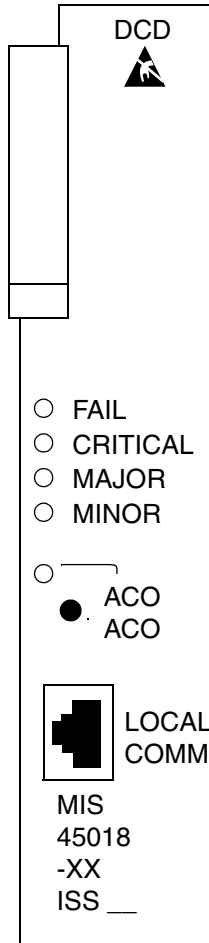
The Maintenance Interface System (MIS) card may be removed or inserted into the shelf at any time without a negative effect to the operation of the shelf. The office alarms and shelf status (except for the battery alarm) do not function while the MIS card is removed from the shelf.

Procedure - MIS Card replacement

- 1 Remove the MIS card from the shelf.
 - 2 Insert the replacement card.
-

MIS, Maintenance Interface System, Holdover Clock

Figure A-21. Holdover Clock MIS Card LEDs



LEDs	Descriptions
FAIL	RED - this card or its power supply has failed. BLANK - no card or power supply failure detected.
CRITICAL	RED - holdover clock system has failed. BLANK - no holdover clock system failure detected.
MAJOR	RED - holdover clock system or any holdover clock card has a major alarm. BLANK - no major alarm detected.
MINOR	YELLOW - holdover clock system or any holdover clock card has a minor alarm. BLANK - no minor alarm detected.
ACO	GREEN - the ACO push button has been pressed to silence the alarm during an alarm state.

TOCA Card Replacement

Description

When an MCA-5 is installed in the MCA slot, an HS protection switch automatically activates when the TO FAIL or PORT ALM lamp is lit. If the TO PORT ALM lamp is lit, you must determine whether it is actually a card port failure, or a shorted or unterminated cable external to the shelf. If you determine that the PORT ALM is actually a port failure on the card, replace the TO card.

Procedure - TOCA Card Replacement

- 1 Verify that an HS protection switch has been activated. If an automatic protection switch has been activated, the output protection button lamps are lit over the failed

Card Removal/Replacement Procedures

card and HS TO card. The MCA-5 AUTO lamp flashes for 6 seconds during the automatic protection switch activation, and then lights steadily.

- 2 If an HS protection is not activated, manually activate a switch by simultaneously pressing the output protection buttons over the TO card with FAIL or PORT ALM lamp lit and a like HS TO card. The output protection button lamps should light over the failed TO card and a like HS TO card, and the MCA-5 MAN lamp flashes until the switch is released.



CAUTION: The TO cards must not be removed without first activating an HS protection switch to minimize the loss of output signals. The possible output loss times are as follows:

- TO card removal: up to 6 seconds
 - Port or card failure: up to 3 seconds
 - Manual switch activation/deactivation: approximately one ms.
-

- 3 Enter the following command to retrieve the terminal types and port numbers:

rtrv-trm

- 4 Enter the following command to inhibit each OAP terminal displayed in the output from Step 3:

inh-trm:trm=x:force=yes

where x is the terminal number assigned as type OAP.

- 5 Remove the TO card from the shelf. Set the option switches on the replacement card to the correct settings. Insert the replacement card. The FAIL lamp on the replacement card should remain off and the INPUT lamp should light. The ST lamp should also light if the system is equipped with clock cards.
-

- 6 Wait 10 seconds after all the lamps normalize to allow the card to warm-up and generate outputs.
-

- 7 Press the lit output protection button for the HS TO card slot until the lamp goes out. The lamp over the output protection button should go off. This releases the HS protection switch and puts the replacement card online.
-

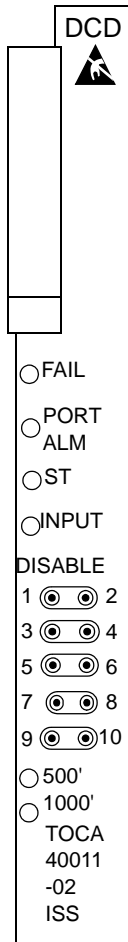
- 8 Enter the following command to return the OAP terminals to the in-service state:

alw-trm:trm=x

where x is the terminal number of the inhibited OAP terminal.

TOCA, Timing Output Composite Automatic, Holdover Clock

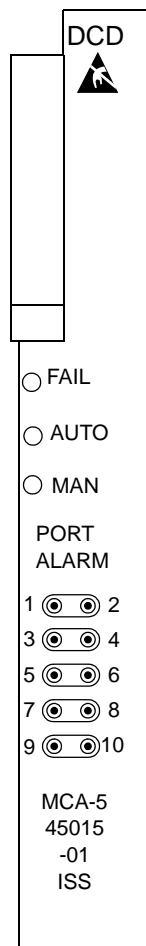
Figure A-22.Holdover Clock TOCA Card LEDs



LEDs	Descriptions
FAIL	RED - this card has failed or there is a loss of all input references to this card. BLANK - no card or input reference failure detected.
PORT ALM	RED - if one to five outputs have failed or have been externally shorted. BLANK - no output failures detected.
ST	GREEN - an active clock is supplying the input reference for this card. BLANK - no active clock detected.
INPUT	GREEN - card is receiving a reference signal from one or more of the following: clock input A, clock input B, clock card A, clock card B. BLANK - card is not receiving a reference signal from any of the above sources.
500'	not used
1000'	not used

MCA, Matrix Controller Assembly Card, Holdover Clock

Figure A-23.Holdover Clock MCA Card LEDs



LEDs	Descriptions
FAIL	RED - this card has failed or there is a loss of all input references to this card. BLANK - no card or input reference failure detected.
AUTO	GREEN - indicates output failure was protected automatically. BLANK - no failures detected.
MAN	GREEN - indicates output failure was protected manually. BLANK - no failures detected.

Fan Assembly P/N 890-0001-xx

The Fan Assembly P/N 890-0001-xx is used for cooling shelves in the EAGLE frame. The assembly includes 3 fan units and a controller card.



CAUTION: Do not perform procedures to *Replace HC MIM Fan Assembly* on page A-65 if the Fan Assembly is used to cool shelves with HCMIM or HIPR cards. Contact the *Customer Care Center*, see page 1-12.

Refer to the following procedures to:

- *Replace Fan Unit* on page A-64
- *Replace Fan Controller Card* on page A-64
- *Replace HC MIM Fan Assembly* on page A-65

Replace HC MIM Fan Unit

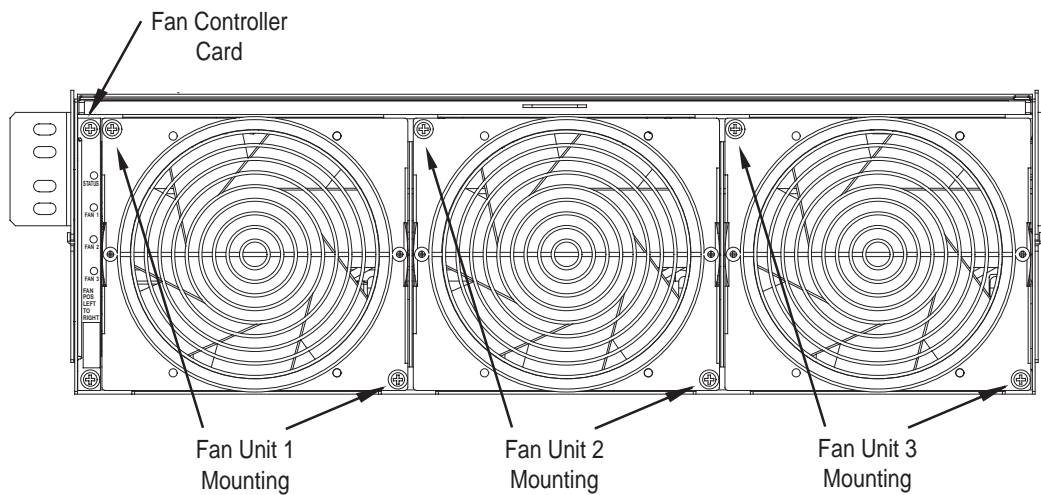
Procedure - Replace Fan Unit



CAUTION: Be careful when removing fans. Fan blades are exposed along the sides and back of the units. The fan blade speeds of remaining fans will increase after any fan is removed.

- 1 Loosen the two captive screws used to secure the fan to be replaced. Fan 1 is located next to the Fan controller card. Refer to Figure A-24.

Figure A-24. Fan Unit Mounting Screws



- 2 Firmly grasp the fan and pull straight out. The corresponding LED on the fan controller card is now red. Refer to Figure A-25.
- 3 Insert the replacement fan into the appropriate slot and secure the two captive screws. The replaced fan should immediately come up to speed and the speeds of other fans should return to normal. The corresponding LED on the fan controller card is now green.

Replace HC MIM Fan Controller Card

Procedure - Replace Fan Controller Card



CAUTION: Be careful when removing fans. Fan blades are exposed along the sides and back of the units. The fan blade speeds of Fan 2 and FAN 3 will increase after fan 1 is removed.

Card Removal/Replacement Procedures

- 1 Remove Fan 1 by removing the two captive screws used to secure Fan 1 (Refer to Figure A-24). Fan 1 is located next to the Fan card. Firmly grasp Fan 1 and pull straight out.

- 2 Remove the fan controller card by removing the two captive screws used to secure the fan controller card. Remove Fan Controller Card by pulling straight out.

- 3 Insert the replacement fan controller card into the appropriate slot and secure the two captive screws.

- 4 Insert Fan 1 back into the space next to the fan controller card and secure (finger tighten) using the two captive screws.
Fan 1 should immediately come up to speed and the speeds of Fans 2 and 3 should return to normal.

Replace HC MIM Fan Assembly



CAUTION: Do not perform this procedures if the Fan Assembly is used to cool shelves with HCMIM or HIPR cards. Contact the *Customer Care Center*, see page 1-12.

The following procedures are used to replace Fan Assembly P/N 890-0001-xx when it is used to cool shelves not populated with HCMIM or HIPR cards.

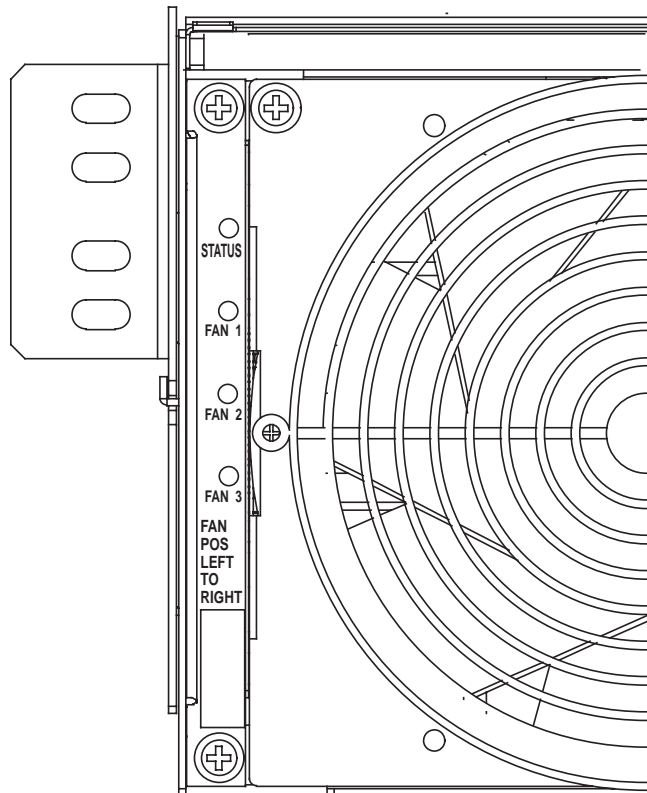
- Procedure - Power Down Fan Assembly on page A-65
- Procedure - Remove Fan Cables and Fan Assembly on page A-66
- Procedure - Install Fan Assembly on page A-67
- Procedure - Power up Fan Assembly on page A-70

Procedure - Power Down Fan Assembly

- 1 The fuse card located on the Fuse and Alarm Panel is marked FAN A and FAN B. Fuse positions 6, 12, and 18 are the correct locations on the FAP faceplate. The fans are fused at 3As, with blue flags per feed. Remove the appropriate fuse for the fan assembly being replaced according to the following:
 - Fuse position 6 is for the fan unit directly below the x100 shelf.
 - Fuse position 12 is for the fan directly below the x200 shelf.
 - Fuse position 18 is for the fan directly below the x300 shelf.

- 2 When both the A side and B side power is removed from the fan unit, all of the LEDs on the fan controller card (located on the left side of the front of the fan unit) are no longer illuminated and the all fan motors are off.

Figure A-25. Fan card with LEDs on front of fan assembly unit



Procedure - Remove Fan Cables and Fan Assembly

- 1 At the fan assembly, place fiber paper on the shelf below where the fan is to be replaced. This ensures that nothing drops into the area or equipment below.

- 2 From the front of the frame remove the fan filter from the fan assembly.

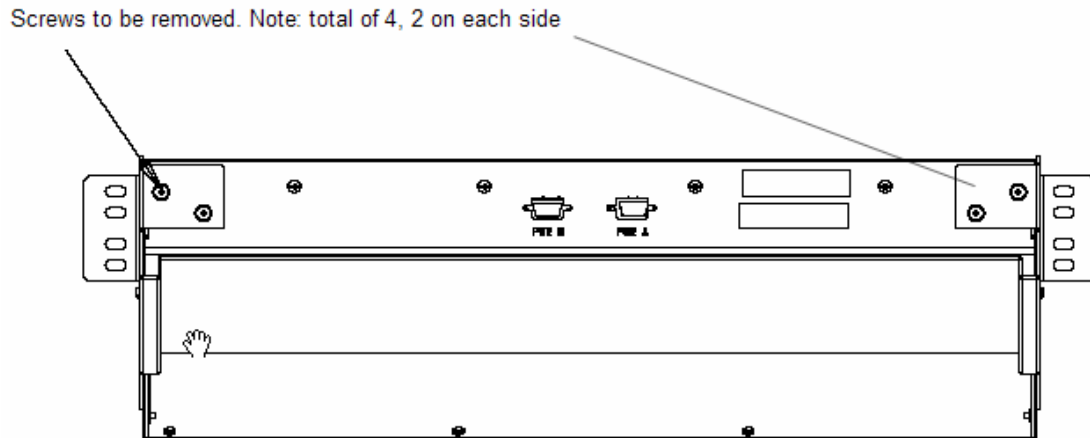
- 3 From the rear of the fan unit, loosen the screws on the fan unit connector marked FAN A POWER. Remove the connector from the fan unit.

- 4 From the rear of the fan unit, loosen the screws on the fan unit connector marked FAN B POWER. Remove the connector from the fan unit.

- 5 Remove the screws from the the left and right sides of the rear of the fan tray bracket. There are two screws on each side. These screws must be removed from the rear of the frame.

Card Removal/Replacement Procedures

Figure A-26. Fan Assembly Rear Bracket Screws.

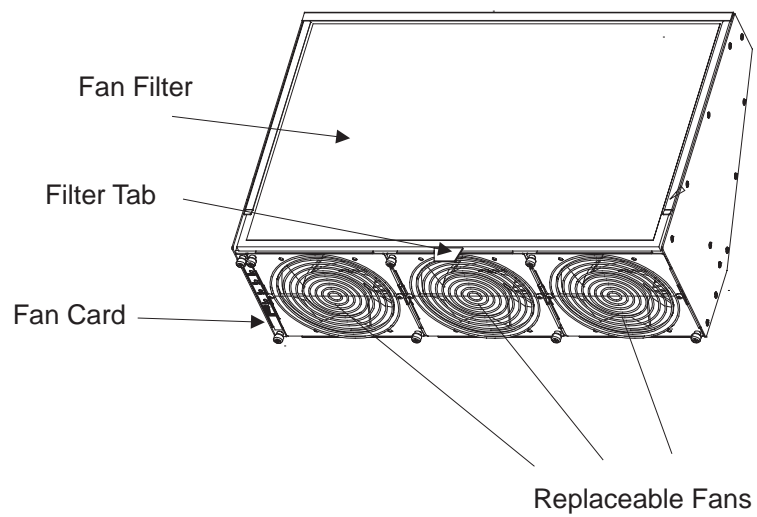


-
- 6 With the screws removed, carefully push on the rear of the unit until the fan assembly moves forward about an inch.
 - 7 From the front of the frame remove the fan assembly. Remove the fan unit from the fan bracket. For easier removal, tilt the unit as it is removed.
-

Procedure - Install Fan Assembly

- 1 Remove the new fan unit from the container. The fan unit is shipped with the three fans already installed.

Figure A-27.Fan Assembly



-
- 2 Insert the fan unit into the fan bracket. Tilt the unit up as it is pushed in and completely inserted into the bracket. After insertion, be sure the front of the fan unit is recessed about 1/2 inch from the front frame rails to allow the door to close.

Figure A-28.Fan tray inserted into fan tray bracket in the frame - front view



Card Removal/Replacement Procedures

- 3 When the fan unit is aligned and in place, attach the fan unit to the fan tray bracket by tightening the screws on the left and right sides of the rear of the fan tray bracket. There are two screws on each side. These screws must be tightened from the rear of the frame.

Figure A-29. Tighten rear fan tray screws



-
- 4 From the front of the frame install the fan filter into the fan assembly.
 - 5 At this time check and tighten all screws, including the screws holding the side brackets to the frame (if necessary). The side bracket screws should be tightened fully from the rear of the frame. Use a long hex driver or flat head screw driver.

Figure A-30. Tighten fan side bracket screws



-
- 6 Connect the fan cable at the rear of the fan assembly on the J9 connector to the FAN A POWER.

 - 7 Connect the fan cable at the rear of the fan assembly on the J8 connector to the FAN B POWER.

 - 8 Remove the piece of fiber paper on the top of the shelf below where the fan assembly was installed. This procedure is complete.



CAUTION: Before powering up the fans, ensure that the shelf directly above the fan does not contain any empty slots. Install an air management card in any empty slots to ensure proper air flow. These filler cards have no electrical connection to the system. See *Replacing a Card in the EAGLE 5 ISS* on page A-52 for general card installation guidelines.

Procedure - Power up Fan Assembly

All fans are fused at 3A (blue) per feed.



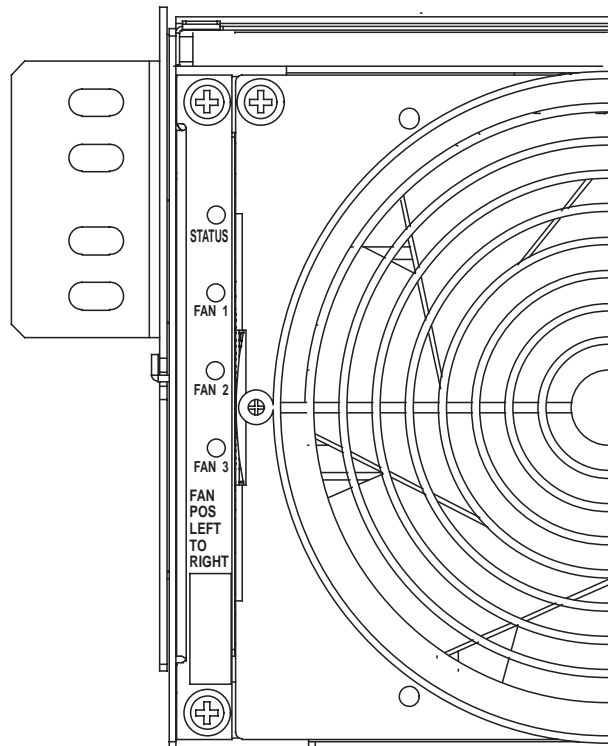
CAUTION: Before powering up the fans, ensure that the shelf directly above the fan does not contain any empty slots. Install an air management card in any empty slots to ensure proper air flow. These filler cards have no electrical connection to the system. See *Replacing a Card in the EAGLE 5 ISS* on page A-52 for general card installation guidelines.

Card Removal/Replacement Procedures

- 1 After the fan is installed, the powering up process depends on the shelf location.
 - The fuse cards located on the Fuse and Alarm Panel are marked FAN A and FAN B, fuse positions 6, 12, and 18 are marked correct locations on the FAP faceplate.
 - Fuse position 6 is for the fan unit directly below the x100 shelf.
 - Fuse position 12 is for the fan directly below the x200 shelf.
 - Fuse position 18 is for the fan directly below the x300 shelf.
 - All fans are to be fused at 3As, with blue flags, per feed.
 - Fill out the fuse card completely.
 - Ensure the FAP fuse location for the fan is properly labeled.

- 2 Fifteen seconds after both the A side and B side power is connected to the fan assembly all of the LEDs on the fan controller card (located on the left side of the front of the fan assembly) are green.

Figure A-31. Fan card with LEDs on front of fan assembly



-
- 3 When the fans are powered up and running, a test must be conducted to ensure proper service. Go to the system terminal.
 - 4 Check to see if the fan feature is activated. At the terminal, enter the command:

rtrv-feat

Example output:

```
rlghncxa03w 04-01-28 11:34:04 EST EAGLE 34.0.0.
EAGLE FEATURE LIST

GTT      = on      GWS      = off      NRT      = off
X25G     = off     LAN      = off     CRMD     = off
SEAS     = off     LFS      = off     MTPRS    = off
FAN      = off     DSTN5000 = off     WNP      = off
CNCF     = off     TLNP     = off     SCCPCNV  = off
TCAPCNV  = off     IPISUP   = off     DYNRTK   = off
X252000  = off     INP      = off     PLNP     = off
NCR      = off     ITUMTPRS = off     SLSOCB   = off
EGTT     = off     VGT      = off     MGTT     = off
MPC      = off     ITUDUPPC = off     GFLEX    = off
GPORT    = off     MEASPLAT = off     TSCSYNC  = off
E5IS     = off
```

;

If the fan feature is off (illustrated in the example), go to Step 5. Otherwise, go to Step 6.

- 5 At the terminal, enter the command:

chg-feat:fan=on

With this command the user will perform the tests beginning with Step 7.

- 6 At the terminal, enter the command:

rept-stat-trbl

Check to see that there are no fan errors. Specifically, check that there are no “#302 Cooling Fan Failure” errors. Next, perform the tests beginning with Step 7.

- 7 Fan Verification (perform Step 7 through Step 12 for each fan assembly). Move to the rear of the frame and remove the A POWER cable from the FAN unit.

Result: Fan 2 and Fan 3 LEDs will blink as the fans speed up to maximum speed. This may take up to 15 seconds. Once maximum speed has been reached Fan 2 and Fan 3 LEDs on the Fan Controller card will be solid green. Fan 1 LED should be red. The controller LED should be blinking green. Fan 1 should stop running and the MINOR LED should be lit.

- 8 At the system terminal enter the command:

rept-stat-trbl

Test each fan to ensure that the alarm and the units are working correctly.

The terminal reports:

```
# 302 Cooling Fan Failure
```

- 9 Replace the A POWER cable on the back of the FAN unit and secure the connector. Result: All fans are running and the MINOR LED is not lit.

Card Removal/Replacement Procedures

The terminal reports:

```
# 303 Cooling Fans Normal
```

- 10 Remove the B POWER cable from the FAN unit.

Result: Fan 1 and Fan 2 LEDs will blink as the fans speed up to maximum speed. This may take up to 15 seconds. Once maximum speed has been reached Fan 1 and Fan 2 LEDs will be solid green. Fan 3 LED should be red. The fan controller LED should be blinking. Fan 3 should stop running and the MINOR LED should be lit.

- 11 At the system terminal enter the command:

rept-stat-trbl

Test each fan to ensure that the alarm and the units are working correctly.

The terminal reports:

```
# 302 Cooling Fan Failure
```

- 12 Replace the B POWER cable on the back of the FAN unit and secure the connector. Result: The fans are running and the MINOR LED is not lit.

The terminal reports:

```
# 303 Cooling Fans Normal
```

- 13 Repeat Step 7 through Step 12 for each fan unit installed. This procedure is complete.
-

EAGLE 5 ISS Replacement Parts List

For a listing of field replaceable parts and cables used in the EAGLE 5 ISS and their part numbers, refer to the tables in Appendix G Part Numbers.

All parts must be replaced through the Return Material Authorization (RMA) process. Contact the *Customer Care Center*, see page 1-12, before replacing any parts.

Card Removal/Replacement Procedures

B

X.25/SS7 Message Conversion

Introduction.....	B-2
Conversion from X.25 to SS7	B-2
Conversion from SS7 to X.25	B-4
Detailed Message Conversion	B-4

Introduction

The X.25/SS7 gateway feature connects X.25 and SS7 networks. The EAGLE 5 ISS STP acts as a gateway between the two networks, with both X.25 and SS7 links terminating to specific cards within the EAGLE 5 ISS.

Message conversion involves removing and adding the protocol envelopes used by X.25 and SS7 networks. The MSU must have the following fields set to specific values:

Field	Value
MSU Service Indicator Octet (SIO)	SCCP
SCCP Message Type	UDT
SCCP Called Party Address Indicator	- SSN included - No GTT - Route by PC or SSN
SCCP Called Party SSN	Not equal to 1

If the SCCP message type is other than UDT (UDTS, for example) it is discarded and counted.

If the above format is present, but the SSN is equal to "1" (subsystem management messages), or the MSU SIO is equal to SNM (0000) or SNT (0001 and 0010), the MSUs are handled by network management. The EAGLE 5 ISS discards all other types of MSUs and issues an event message.

The following information is an overview of the conversion process. The subsequent section in this appendix, shows the details of the MSU and the X.25 packets that are built. The definitions for the message elements are as follows:

- Control - The portion of each message that is relevant only to the specific protocol.
- Routing Label - The SS7 portion that contains the OPC, DPC and SLS.
- SCCP - The envelope in SS7 that carries the TCAP.
- TCAP - The envelope that carries the IS.41 message.
- Logical Channel - The identification of the virtual circuit used by the X.25 network.

Conversion is closely tied to routing. The view of the origination and the destination is different on the X.25 side from the SS7 side. In format conversion, the origination and destination are known and the connection has been defined in the gateway routing table.

Conversion from X.25 to SS7

Following is an overview of the message conversion from the X.25 to SS7 network:

X.25/SS7 Message Conversion

Field	Value
Control	<p>1 Parameter is set to length indicator field (and internal DMA length) from received data packet length.</p> <p>2 SIO set as follows:</p> <ul style="list-style-type: none"> • Sub-service field equal to 1000. • National network (10xx) and Priority of 0 (xx00). • Service indicator equal to 0011 (SCCP)
X.25 Data Network Address	<p>1 OPC value is set from the X.25 point code field in the gateway routing table.</p> <p>2 DPC value is set from SS7 point code field in the gateway routing table.</p> <p>3 SLS value is set from the local variable that is incremented for each SS7-bound message. Traffic is generated evenly across all messages sent to the SS7 network.</p>
TCAP	No conversion

If the packet type is designated as a data packet (containing an IS41 message) following is the information appended to the level 3 SCCP header that is generated by the EAGLE 5 ISS:

X.25 Data Packets	<ol style="list-style-type: none"> 1. Message type set to UDT 2. Protocol class value set to 0. 3. Called party indicator is set equal to: <ul style="list-style-type: none"> • SSN included • PC not included • GTT not included • Route on routing label and SSN • National address 4. Called party SSN is set from the SS7 SSN field of gateway routing table. 5. Calling party indicator is set equal to the following: <ul style="list-style-type: none"> • SSN included • PC not included • GTT not included • Route on routing label and SSN • National address 6. Calling party SSN is set from X.25 SSN field in the gateway routing table
-------------------	---

Conversion from SS7 to X.25

Following is the message conversion from the SS7 network to the X.25 network:

Field	Value
Control	GFI is set equal to the following:8 <ul style="list-style-type: none"> • no Dbit • no Qbit • P(s)/P(r) modulo
Logical Channel	Set from logical channel field of the gateway routing table.
TCAP	No conversion.

NOTE: If the total message is larger than the default packet size, the message is discarded and the STP generates an unsolicited information message (UIM).

Detailed Message Conversion

This section shows the X.25 to SS7 message conversion in detail.

Offset	Binary	Hex	Field Description	Value
MTP Level 2				
00	01111110	7E		
	x1111111		Backward Sequence Number	127 (dummy data)
	0xxxxxxx		Backward Indicator Bit	0 (dummy data)
01	10000000	80		
	x0000000		Forward Sequence Number 0	(dummy data)
	1xxxxxxx		Forward Indicator Bit 1	(dummy data)
02	1000 0000	80		
	xxbbbbbb		Length Indicator	Equal to 24 plus TCAP message length (TCAP message is the user data portion of the X.25 data packet)
	00xxxxxx		Spare	0
MTP Level 3				
03	10000011	83	SIO	
	xxxx0011		Service Indicator	0011= SCCP

X.25/SS7 Message Conversion

Offset	Binary	Hex	Field Description	Value
	xx00xxxx		Network Priority	Equal to 00
	10xxxxxx		Network Indicator	10 = National Network
04	bbbbbbbb	Pm	Destination Point Code	Connection determination finds this value in the gateway routing table SS7 point code field.
05	bbbbbbbb	Pc		
06	bbbbbbbb			
07 (#5)	bbbbbbbb			Connection determination locates this value in the gateway routing table (GWT) X.25 point code field.
08	bbbbbbbb		Origination Point Code	Connection determination locates this value in the gateway routing table (GWT) X.25 point code field.
09	bbbbbbbb			Connection determination locates this value in the gateway routing table (GWT) X.25 point code field.
10	000bbbb			
	xxxbbbb		Signaling Link Selection	SLS subsystem provides.
	000xxxx		Spare	
SCCP (No Global Title Translation requested)				
11	00001001	09	Message Type	09 = Unitdata
12	00000000	00		
	xxxx0000		Protocol Class	0 = Class 0
	0000xxxx		Message Handling	0000 = discard message on error
13	00000011	03	Called Party Address Pointer	@ offset 13 + 3(03) = 16
14	00000101	05	Calling Party Address Pointer	@ offset 14 + 5(0b) = 19
15	00000111	07	Data Portion Pointer	@ offset 15 + 7(0d) = 22
16	00000011	03	Called Party Address Length	3
17	11000001	c1	Called party Address Indicator	
	xxxxxxx1		Subsystem Number Indicator	1 = SSN included
	xxxxxxx0x		Point Code Indicator	0 = PC not included

X.25/SS7 Message Conversion

Offset	Binary	Hex	Field Description	Value
	xx0000xx		Global Title Indicator	0000=no global title
	x1xxxxxx		Routing Indicator	1 = route by point code or SSN
	1xxxxxxx		National/ International	1 = National address
18	xxxxxxx	SS	Subsystem Number	SS7 SSN from Gateway Routing Table.
19	00000011	03	Calling Party Address Length	3
20	11000001	c1	Calling Party Address Indicator	
	xxxxxxx1		Subsystem Number Indicator	1= SSN included
	xxxxxx0x		Point Code Indicator	0 = PC not included
	xx0000xx		Global Title indicator	0000 = No global title included
	x1xxxxxx		Routing indicator	1 = Route by point code or SSN
	1xxxxxxx		National/ International	1 = National address
21	xxxxxxx		Subsystem Number	X.25 SSN from Gateway Routing Table

TCAP

22	bbbbbbbb		Data Portion Length	Length of TCAP message received from X.25 network.
23	Variable		TCAP Data	

X.25 Level 2

00	000000bb		Address Field	03=DTE, 01=DCE
01	rrrpsss0		Control Field	
	rrrxxxx		Receive sequence number, n(r)	
	xxpxxxx		Poll/Final bit	
	xxxxsssx		Send sequence number, n(s)	
	xxxxxxx0		Frame type	0 = I-frame

X.25 Level 3 (Call Request Packet)

X.25/SS7 Message Conversion

Offset	Binary	Hex	Field Description	Value
02	00010000		General Format Indicator	
	0xxxxxxx		Q-bit	0 = not used
	x0xxxxxx		D-bit	0 = not used
	xx01xxxx		Modulo bits	01 = modulo 8 for P(r), P(s)
	xxxx0000		Logical Channel Group number	
03	xxxxxxx		Logical channel number	Connection determination locates this value in the GRT logical channel field.
04	00001011	0B	Packet type	0B= Call Request
05	tttcccc		Address lengths	
	tttxxx		Calling party address length	Connection determination calculates these values from the GRT X.25 called address and SS7 calling address fields
	xxxxcccc		Called party address length	Connection determination calculates these values from the GRT X.25 called address and SS7 calling address fields
06	dddddddd		Called party address	Connection determination locates this value in the GRT X.25 address field
n	dddddddd		Called party address	Connection determination locates this value in the GRT X.25 address field
n+1	00000000		Calling party address	Connection determination locates this value in the GRT SS7 address field.
m	00000000		Calling party address	Connection determination locates this value in the GRT SS7 address field.

X.25 Level 3 (Data Packet)

02	00010000		General Format Indicator	
	0xxxxxxx		Q-bit	0 = not used
	x0xxxxxx		D-bit	0 = not used
	xx01xxxx		Modulo bits	01 = modulo 8 for P(r), P(s)
	xxxx0000		Logical Channel Group number	0 = Group 0
03	xxxxxxx		Logical channel number	PVC or SVC number
04	rrrmsss0		Packet type	xxxxxxx0 = Data
	rrrxxxx		Receive sequence number, P(r)	

X.25/SS7 Message Conversion

Offset	Binary	Hex	Field Description	Value
	xxx0xxxx		More bit	0 = single, stand-alone packet
	xxxxsssx		Send sequence number, P(s)	

TCAP

29	xxxxxxxx		TCAP Data	
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C

Holdover Clock Troubleshooting Procedures

Introduction.....	C-2
Interpreting System Alarms, Lamps And Trouble Isolation	C-2

Introduction

Most alarm conditions in the holdover clock are not out-of service or service-affecting conditions. The system is designed with redundant power, reference inputs, clock input cards, stratum clock cards and output card protection switching.

The only true out-of-service condition is when all power is lost to a shelf, or all reference inputs and both stratum clock cards fail. Before taking any action on the system, such as removing cards, first consider the following troubleshooting guidelines:

- Do not touch the shelf until you have analyzed the condition and know the possible result of any planned corrective actions.
- Do not touch the shelf until you have been properly grounded.
- Both major and minor alarms in the shelf require immediate attention. But, very few alarms in the holdover clock system are service affecting. Improper corrective actions could be service affecting.
- Do not remove an ST3 clock card from the shelf, unless you are certain it is the cause of the condition. This is especially true if the ST clock card(s) is (are) in the holdover mode (the HOLD OV/HOLDOVER lamp is lit, or the HOLD OV/HOLDOVER and INP TOL lamps are lit). Removing both ST clock cards in this condition causes total loss of all outputs from the shelf and/or system.
- Write down any alarm and normal lamp conditions in the shelf. These will help you to determine where to look for the cause of the condition.

Interpreting System Alarms, Lamps And Trouble Isolation

Alarms generated by the holdover clock are reported through the Eagle. All alarm conditions are defined in Chapter 3, Corrective Maintenance.

When troubleshooting, write down all abnormal and normal lamp conditions for the shelf with the alarm lamp lit on the SAI card. This will assist in analyzing and isolating the cause of the condition. Do not start removing or replacing cards to attempt to clear alarms, as it could lead to crashing EAGLE 5 ISS.

Tables to aid in troubleshooting are listed in the following sections. Once the basic trouble has been isolated and it has been determined that an individual card is defective, perform the appropriate card replacement procedure in Appendix A.

Holdover Clock Troubleshooting Procedures

Table C-1. Input and ST3 Alarm Conditions

SAI/MIS LAMPS	ABNORMAL CARD LAMPS	ACTIVATED OFFICE ALARMS AND SHELF STATUS	ACTIVATED CLOCK STATUS A AND B	CONDITION TYPE # (NOTE)
MAJOR and MINOR lit	ST3 A and B = FAIL, LOCK, and REF B lit	Visual = MAJOR and MINOR Shelf Status = MAJSI, MINSI, and CLKL. (HOLDOVER ALARM switch SW3 on backplane is set to MAJ or MIN)	None	1
MAJOR and MINOR lit	Input cards A and B = FAIL lit, frequency/bit rate lamp off, SR FL lit (ACI only) ST3 A and B = FAIL, LOCK, and REF B lit	Visual = MAJOR and MINOR Shelf Status = MAJSI, MINSI, and CLKL. (HOLDOVER ALARM switch SW3 on backplane is set to MAJ or MIN)	None	2
MINOR lit	Input card A or B = FAIL lit, frequency/bit rate lamp off or lit, SR FL lit (ACI only) ST3 A and B = REF (A or B) lamp lit (associated with input card with FAIL lamp off)	Visual = MINOR Shelf Status = MINSI, and CLKL (HOLDOVER ALARM switch SW3 on backplane is set to MAJ or MIN)	None	3
MINOR lit	ST3 A and B = LOCK lit	Visual = MINOR Shelf Status = MINSI (HOLDOVER ALARM switch SW3 on backplane is set to MAJ or MIN)	None	4
MINOR periodically lights, then goes off	Input card A and/or B = FAIL periodically goes on and off. First occurrence only the SRC ACT/SRC ACTIVE on FAIL card goes off and lights on the other card.	Visual = Periodic MINOR Shelf Status = Periodic MINSI and CLKL (HOLDOVER ALARM switch SW3 on backplane set to MAJ or MIN)	None	5
MAJOR lit	ST3 A or B = FAIL lit	Visual = MAJOR Shelf Status = MAJSI (HOLDOVER ALARM switch SW3 on backplane is set to MAJ or MIN)	None	6
For the corrective action to take for each condition type, refer to Table C-2.				

Table C-2. Input and ST3 Corrective Actions

CONDITION TYPE # (From Table E-1.)	CONDITION AND PROBABLE CAUSE	CORRECTIVE ACTION
1	No input cards installed. Outputs are as accurate as freerunning clock cards. Timed network elements reporting high slip rate.	Install at least one input card.(See Appendix A).
2	Input references A and B has failed (frequency/bit rate lamp off) or has exceeded BPV, OOF, or excessive zeros parameters (frequency/bit rate lamp lit).	Check input reference connections at the shelf and source ends. Reconnect if required. Isolate and repair input reference facilities, if required.
	The input reference facility framing format rearranged from D4 to ESF, or vice versa, and the input card options were not changed to match it.	Change the option switch settings to match the current framing format. See the Installation Manual
	The input reference has been recently reassigned, and the signal amplitude is too high.	Wire a 100 ohm, 1/4 watt resistor across T and R input terminals on the shelf backplane.
	Both input cards have failed.	Replace both input cards (See Appendix A).
3	Input reference A or B has failed (frequency/bit rate lamp off) or has exceeded BPV, OOF, or excessive zeros parameters (frequency/bit rate lamp lit).	Check input reference connections at the shelf and source ends. Reconnect if required. Isolate and repair input reference A or B facility (if required).
	Input card A or B has failed.	Replace the input card with the FAIL lamp lit (See Appendix A).
	The input reference facility framing format rearranged from D4 to ESF, or vice versa, and the input card options were not changed to match it.	Change the option switch settings to match the current framing format.
	The input reference has been recently reassigned, and the signal amplitude is too high.	Wire a 100 ohm, 1/4 watt resistor across T and R input terminals on the shelf backplane.
4	Active input reference has exceeded pull-in range of ST3 cards. Timed network elements reporting high slip rate.	Press transfer (XFR) pushbutton on either input card to switch SRC (source) ACTIVE lamp to the other input card. ST3 A and B LOCK lamps go off in less than 40 seconds. Isolate source of frequency offset on input reference facility and repair.
5	Input reference facility (A and/or B) line coding rearranged from AMI to B8ZS and input card(s) option switches were not set to match the change. Input card BPV spec periodically exceeded.	Change input card(s) option switch settings from AMI to B8ZS.
6	ST3 A or B card has failed and squelched its outputs. Outputs are receiving their reference from the ST3 with its FAIL lamp off. Outputs are not affected.	Replace the ST3 card (A or B) with the FAIL lamp lit (Appendix A).

NOTE: For the corrective action to take for each condition type, refer to Table C-2.

Holdover Clock Troubleshooting Procedures

Table C-3. Shelf and Output Alarm Conditions - Not Related to Input and ST Conditions

SAI/MIS LAMPS	ABNORMAL SHELF AND CARD LAMPS	ACTIVATED OFFICE ALARMS AND SHELF STATUS	ACTIVATED CLOCK STATUS A AND B	CONDITION TYPE # (NOTE)
None lit	All lamps on all cards are off	Visual = CRITICAL (MIS ONLY), MAJOR, and MINOR Shelf Status = CRTSI (MIS only), MAJSI, MINSI, and BATTALM	None	1
MINOR lit	MCA-5 = All 10 PORT ALM lamps lit	Visual = MINOR Shelf Status = MINSI	None	2
MINOR lit	Any TO card = PORT ALM lit Output protection pushbutton lamps = Lamp over TO card with PORT ALM lit, and like HS TO card light for a short period of time (approx 3 seconds) then goes off MCA-5 = AUTO lamp flashes for approx 6 seconds when HS protection switch is activated and released.	Visual = MINOR Shelf Status = MINSI and PRTA (SW1 positions 3 and 5 on MCA-5 set to MAJ or MIN)	None	3
MINOR lit	Shelf fuse A or B = Lamp lit	Visual = MINOR Shelf Status = MINSI, and BATTALM. POWER ALARM switch SW2 on backplane is set to MIN)	None	4
MAJOR lit	Any TO, ST, or MCA-5 = FAIL lit	Visual = MAJOR Shelf Status = MAJSI (MCA-5 SW1, positions 3 and 5 set to MAJ)	Visual = MAJOR Shelf Status = MAJSI (MCA-5 SW1, positions 3 and 5 set to MAJ)	5
FAIL and MAJOR lit (MIS only)	MIS = FAIL lit	Visual = MAJOR Shelf Status = MAJSI	None	5
MAJOR and MINOR lit	Shelf fuse A or B = Lamp lit	Visual = MAJOR Shelf Status = MAJSI, MINSI, and BATTALM. (POWER ALARM switch SW2 on backplane is set to MAJ)	None	4

Table C-3. Shelf and Output Alarm Conditions - Not Related to Input and ST Conditions (Continued)

SAI/MIS LAMPS	ABNORMAL SHELF AND CARD LAMPS	ACTIVATED OFFICE ALARMS AND SHELF STATUS	ACTIVATED CLOCK STATUS A AND B	CONDITION TYPE # (NOTE)
MAJOR and MINOR lit	Any TO card = FAIL lamp lit Output protection pushbutton lamp = Lamps lit over TO with FAIL lamp lit and like HSTO card (HS protection switch activated).	Visual = MAJOR and MINOR Shelf Status = MAJSI and MINSI (MCA-5 SW1, positions 3 and 5 set to MIN)	None	5
MAJOR and MINOR lit or MINOR lit or None lit (MAJOR and MINOR lit if MCA-5 SW1, positions 3 and 5 set to MAJ; if SW1 set to MIN, then MIN lit; if set to NO ALARM, then None lit)	Output protection pushbutton lamps = Lamps over TO cards and HS cards alternately light and then go off.	Visual = MAJOR and MINOR or MINOR or None Shelf Status = MAJSI and MINSI or MINSI or None (MAJOR and MINOR if MCA-5 card SW1 set to MAJ; MINOR if SW1 set to MIN; none if SW1 set to NO ALARM)	None	6
MINOR lit or MAJOR and MINOR lit (MINOR if MCA-5 SW1, positions 3 and 5, are set to MIN or NO ALARM; MAJOR and MINOR lit if set to MAJ)	Any TO card = PORT ALM lit Output protection pushbutton lamps = Lamps lit over TO card with PORT ALM lit, and like HS TO card.	Visual = MINOR or MAJOR and MINOR Shelf Status = MINSI and PRTA or MAJSI, MINSI, and PRTA (MINOR if SW1 positions 3 and 5 on MCA-5 set to MIN or NO ALARM; MAJOR and MINOR if set to MAJ)	None	7

Holdover Clock Troubleshooting Procedures

Table C-3. Shelf and Output Alarm Conditions - Not Related to Input and ST Conditions (Continued)

SAI/MIS LAMPS	ABNORMAL SHELF AND CARD LAMPS	ACTIVATED OFFICE ALARMS AND SHELF STATUS	ACTIVATED CLOCK STATUS A AND B	CONDITION TYPE # (NOTE)
MINOR lit or MAJOR lit or None lit (MINOR lit if MCA-5 SW1, positions 3 and 5 set to MIN; if SW1 set to MAJ, then MAJOR is lit; if set to NO ALARM, then None lit)	Output protection pushbutton lamps = Lamps lit over a TO card and like HS TO cards MCA-5 = MAN lamp is flashing	Visual = MINOR or MAJOR or None Shelf Status = MINSI or MAJSI or None (MINOR lit if MCA-5 SW1, positions 3 and 5 set to MIN; if SW1 set to MAJ, then MAJOR is lit; if set to NO ALARM, then None lit)	None	8

NOTE: For the corrective action to take for each condition type, refer to Table C-4.

Table C-4. Shelf and Output Corrective Actions - Not Related to Input and ST Conditions

CONDITION TYPE # (FROM Table E-3.)	CONDITION AND PROBABLE CAUSE	CORRECTIVE ACTIONS
1	Loss of Battery A and B to shelf. All outputs are squelched. Causes could be from operating error, office battery source failure, blown fuses, or a component failure, e.g., isolation diode which shorts battery to battery return.	1.Determine cause of loss of battery and repair. 2.Restore office battery source. 3.Replace blown fuses in battery distribution bays, miscellaneous fuse bays, and panels, and/or on DCD shelf.
2	Communication between MCA-5 and TO cards is not functioning. Microprocessor on the MCA-5 is failed or garbled. Does not affect outputs. Automatic TO protection switching function disabled. Manual TO protection switching function is still operational.	1.No TO cards in shelf. Install at least one TO card. 2.No input references or input cards, and no clock cards installed. Install at least one clock (ST) card (See Appendix A.) 3.MCA-5 communications bus or microprocessor garbled. Remove and reinsert the MCA-5 card to clear bus and microprocessor. 4.MCA-5 microprocessor failed. Replace MCA-5 card (Appendix A).

Table C-4. Shelf and Output Corrective Actions - Not Related to Input and ST Conditions (Continued)

CONDITION TYPE # (FROM Table E-3.)	CONDITION AND PROBABLE CAUSE	CORRECTIVE ACTIONS
3	<p>HS protection switch activated, then released because of:</p> <ul style="list-style-type: none"> • Unterminated cable on TOTA or TOTL output, <p>or,</p> <ul style="list-style-type: none"> • Shorted cable on TO output. <p>When the condition occurred, an HS protection switch was activated, PORT ALM on TO goes off, and lights on the HS TO card, output protection pushbutton lamps over the TO and HS light, MCA-5 AUTO lamp flashes, HS protection switch releases, PORT ALM on HS TO goes off and lights on TO, output protection pushbutton lamps go off, and MCA-5 AUTO lamp stops flashing (duration = 3 to 6 seconds). Non-failed ports on TO with PORT ALM lit lost output for one millisecond during HS protection switch activation and release. Failed TO port is out of service.</p>	<ol style="list-style-type: none"> 1. Press and hold the output protection pushbutton over the TO card with PORT ALM lamp lit. MCA-5 lights PORT ALM lamp(s) of failed TO port. Release pushbutton. 2. Isolate and repair cable or NE connected to that TO port. 3. If port connection is new and not yet terminated at NE, then either insert disabling pin in that port's disabling jack on TO card faceplate, or remove cable from output wire-wrap panel, or place an appropriate resistor termination across tip (T) and ring (R) of cable at NE end, until ready to connect cable at NE end.
4	<p>Loss of Battery A or B to shelf. Does not affect outputs. Causes could be from operating error, blown fuse, or a component failure, e.g., isolation diode which shorts battery to battery return.</p>	<ol style="list-style-type: none"> 1. Determine cause of loss of battery and repair. 2. Replace blown fuses in battery distribution bays, miscellaneous fuse bays, and panels, and/or on DCD shelf.
5	<p>Card with FAIL lamp lit has failed, except for input card which causes a MINOR alarm when its FAIL lamp lights. Outputs are not affected if MCA-5 and HS slots are equipped.</p>	<p>Replace the card with the FAIL lamp lit (Appendix A). Release HS protection switch, if activated, by pressing lit HS pushbutton until switch releases.</p>
6	<p>A TO card's microprocessor has lost its ability to process data. The TO cards are alternately being switched to HS protection and then released. One millisecond loss of outputs each time a TO is switched to or released from HS protection.</p>	<p>Manually switch each TO card to the HS, replace the TO card (Appendix A) and release the HS switch. Continue until the malfunctioning TO card is located and removed from the shelf.</p>

Holdover Clock Troubleshooting Procedures

Table C-4. Shelf and Output Corrective Actions - Not Related to Input and ST Conditions (Continued)

CONDITION TYPE # (FROM Table E-3.)	CONDITION AND PROBABLE CAUSE	CORRECTIVE ACTIONS
7	<p>Output port failed on TO card with PORT ALM lamp lit. HS protection switch activated. Loss of output on failed port. Other output on same TO lost for one millisecond when HS protection switch activated.</p> <p>When condition occurred, an HS protection switch was activated, PORT ALM lamp on TO card remained lit, output protection pushbutton lamps over TO and HS slots lit, and MCA-5 card's AUTO lamp flashes for 6 seconds and then lights steady.</p>	<ol style="list-style-type: none"> 1. Press and hold the output protection pushbutton over the TO card with the PORT ALM lamp lit. MCA-5 lights PORT ALM lamp(s) of failed TO port. Release pushbutton. 2. Remove TO card with PORT ALM lamp lit. 3. Set option switch settings on the replacement TO card identical to settings on removed TO card. 4. Insert replacement TO card in shelf slot and wait 10 seconds for TO to warm-up. Verify ST, INPUT and OPTION lamps are lit and PORT ALM and/or FAIL lamps are not lit. 5. Press output protection pushbutton over HS TO until pushbutton lamps go out (releases HS switch). MCA-5 card's AUTO lamp flashes for 6 seconds and then lights steady.
8	TO card manually switched to HS TO card	Release the manual HS switch by pressing the lit pushbutton over the HS TO card for 3 seconds.

Holdover Clock Troubleshooting Procedures

D

UAM Balancing Matrix

Introduction.....	D-2
Alarms	D-2

Introduction

The tables in this appendix list Critical, Major, Minor, and Normal alarms that appear for device conditions, and indicate the clearing alarm that appears when each condition is resolved in the system. (Some device conditions are categorized as Normal, and have an associated clearing alarm when the device changes to another Normal condition.)

NOTE: A generic clearing alarm, UAM 0500 "Alarm being cleared for this device," addresses scenarios where an alarm used to silently remove an active alarm did not make sense for the condition that was being cleared. This UAM is a generic alarm clearing output that applies to all setting alarms (Critical, Major, and Minor).

Alarms

This section lists the following alarm types in alphabetical order:

- Application Data Path Alarms
- Card Alarms
- CDT (Customer Defined Trouble) Alarms
- Clock (Holdover) Alarms
- Clock System Alarms
- DCM Alarms
- DLK Alarms
- DPC Alarms
- DPC System Alarms
- DSM Alarms
- E1 Port Alarms
- EIR Alarms
- EMAP Alarms
- EMAP (NDC) Alarms
- ENET Alarms
- EROUTE Alarms
- Frame Alarms
- Fuse Alarms
- GLS Alarms

UAM Balancing Matrix

- GPL Alarms
- HS Clock System Alarms
- IMT Bus Alarms
- IMT System Alarms
- INP System Alarms
- IP7 Alarms
- IP Connection Alarms
- IP TPS System Alarms
- IP7 System Alarms
- Linkset Alarms
- LNP System Alarms
- LSMS Connection Alarms
- LSMS System Alarms
- MCPM Alarms
- MEAS System Alarms
- MPS (ELAP/EPAP) Alarms
- MPS Alarm Support
- NDC System Alarms
- RTX System Alarms
- SCCP System Alarms
- SCCP Service Alarms
- SEAS OAP Alarms
- SEAS System Alarms
- SEAS X25 Alarms
- Security Log Alarms
- Security System Alarms
- SLK Alarms
- STPLAN Alarms
- System Alarms
- System GPL Alarms

- T1 Port Alarms
- Terminal Alarms
- X-LIST Alarms

Application Data Path Alarms

Table D-15 shows the critical application data path alarms and the clearing alarm that appears when each condition is resolved.

Table D-1. Application Data Path Alarms

Critical		Normal	
UAM	Text	UAM	Text
0541	MSU cksum error threshold exceeded	0542	Cksum error threshold cleared

Card Alarms

Table D-2 shows the critical and major card alarms and the clearing alarm that appears when each condition is resolved.

Table D-2. Card Alarms

Critical		Normal	
UAM	Text	UAM	Text
0077	Card temperature is critical lvl:T2	0079	Card temperature again at nominal levels
0092	MDAL not responding	0093	MDAL alarm cleared
0442	RTDB database capacity is 95% full	0447	RTDB database capacity alarm cleared
Major		Normal	
UAM	Text	UAM	Text
0001	Card has reset	0014	Card is present
		0096	Card has been reloaded
0008	Active MASP has become isolated	0009	MASP became active
		0010	MASP became standby
0013	Card is isolated from the system	0014	Card is present
		0096	Card has been reloaded
0053	Standby TDM failure	0054	Standby TDM failure cleared
0078	Card temperature exceeds nominal lvl:T1	0079	Card temperature again at nominal levels
0088	Clocks A and B TSCs are out of sync	0089	Clocks A and B TSCs are resynchronized

UAM Balancing Matrix

Table D-2. Card Alarms (Continued)

0132	Loading failed: table not found	0096	Card has been reloaded
0133	Loading failed: data read error		
0134	Loading failed: bad checksum returned		
0135	Loading failed: GPL load timeout		
0136	Loading failed: data load timeout		
0137	Loading failed: invalid GPL		
0138	Loading failed: GPL format error		
0139	Loading failed: disk read prep error		
0140	Loading failed: disk read response error		
0141	Loading failed: disk read failed		
0300	TVG Grant Failure	0301	TVG Grant Recovery
0306	SNM Overload Onset	0307	SNM Overload Abated
0043	Incorrect feature configuration	0423	Card reload attempted
0099	Incompatible HW for provisioned slot		
0276	Insufficient HW for IP7 provisioning		
0297	Incorrect port configuration		
0422	Insufficient extended memory		
0441	Incorrect MDB – CPU		
0446	RTDB database capacity is 80% full		
0449	RTDB resynchronization in progress	0450	RTDB resynchronization complete
0443	RTDB database is corrupted	0445	RTDB database has been corrected
0451	RTDB reload is required		
0493	RTDB database is 100% full		
0514	Standby MASP is inhibited	0515	Standby MASP is allowed
0901	Card DB load timeout, check GLS card	0902	Card DB is stable
0903	IP Link A is down	0904	IP Link A is up
0905	IP Link B is down	0906	IP Link B is up
0908	HW cannot support purchased TPS rate	0907	HW limiting TPS rate alarm cleared
0051	TSC Sync is in simplex mode	0052	TSC sync feature is available
0466	STC Network Unavailable	0467	STC Network Available
0088	Clocks A and B TSCs are out of sync	0089	Clocks A and B TSCs are resynchronized
0390	Illegal Address Error	0388	Illegal Address Error Cleared
0391	Card not responding Error	0389	Card responding normally
Minor		Normal	
UAM	Text	UAM	Text

Table D-2. Card Alarms (Continued)

0022	Clock B for card failed, Clock A normal	0025	Clock B for card normal
0023	Clocks A and B for card failed	0026	Clocks A and B for card normal
0034	Card database is inconsistent	0033	Card database has been corrected
0035	Card database is corrupted		
0037	Card backup database is inconsistent	0036	Card backup database has been corrected
0038	Card backup database is corrupted		
0044	Real time clock battery low	0045	Real time clock battery restored
0055	Persistent device state tbl corrupt	0057	Persistent device state tbl corrected
0056	Persistent device state tbl diff ver		
0102	Motherboard BIP invalid	0103	Motherboard BIP valid
0145	HS Clock A for card failed, B normal	0148	High Speed Clock A for card normal
0146	HS Clock B for card failed, A normal	0149	High Speed Clock B for card normal
0147	High Speed Clocks A and B for card failed	0159	High Speed Clocks A and B for card normal
0298	Card not using config. SCTP csum method	0299	Config. SCTP csum method alarm cleared
0304	REPT-NMTSK-DSCD: SNM Discard Onset	0305	RECVY-NMTSK-DSCD: SNM Discard Abated
0427	LNP database is corrupted	0431	LNP database has been corrected
0429	LNP database is inconsistent		
0428	Backup LNP database is corrupted	0432	Backup LNP database has been corrected
0430	Backup LNP database is inconsistent		
0444	RTDB database is inconsistent	0445	RTDB database has been corrected
0448	RTDB database incoherent		
0480	Timestamp Invalid	0481	Timestamp Valid
0498	Sanity monitoring is disabled	0499	Sanity monitoring is enabled
		0130	Card successfully loaded with data
		0400	Alarm cleared by deleting card
		0294	REPT-ALMINH: alarm output PERM inhibit
		0295	REPT-ALMINH: alarm output enabled
		0296	REPT-ALMINH: alarm output TEMP inhibit

UAM Balancing Matrix

CDT (Customer Defined Trouble) Alarms

Table D-3 shows the critical, major, minor, and normal card alarms and the clearing alarm that appears when each condition is resolved.

Table D-3. CDT (Customer Defined Trouble) Alarms

Critical		Normal	
UAM	Text	UAM	Text
0058	Critical customer trouble detected	0062	Customer trouble cleared
Major		Normal	
0059	Major customer trouble detected	0062	Customer trouble cleared
Minor		Normal	
0060	Minor customer trouble detected	0062	Customer trouble cleared
Normal		Normal	
0061	Customer trouble detected	0062	Customer trouble cleared

Clock (Holdover Clock) Alarms

Table D-4 shows the critical, major, and minor Holdover Clock alarms and the clearing alarm that appears when each condition is resolved.

Table D-4. Clock (Holdover) Alarms

Critical		Normal	
UAM	Text	UAM	Text
0063	Critical holdover clock trbl detected	0066	Holdover clock trouble cleared
Major		Normal	
0064	Major holdover clock trouble detected	0066	Holdover clock trouble cleared
Minor		Normal	
UAM	Text	UAM	Text
0065	Minor holdover clock trouble detected	0066	Holdover clock trouble cleared

Clock System Alarms

Table D-5 shows the critical, major, and minor clock alarms and the clearing alarm that appears when each condition is resolved.

Table D-5. Clock System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0128	All clocks have failed	0113	Clock alarm(s) cleared
Major		Normal	
UAM	Text	UAM	Text
0162	1116-P, 1116-S clocks failed	0113	Clock alarms cleared
0164	1114-S, 1116-S clocks failed		
0166	1114-S, 1116-P, 1116-S clocks failed		
0169	1114-P, 1116-P clocks failed		
0170	1114-P, 1116-P, 1116-S clocks failed		
0171	1114-P, 1114-S clocks failed		
0172	1114-P, 1114-S, 1116-S clocks failed		
0173	1114-P, 1114-S, 1116-P clocks failed		
Minor		Normal	
UAM	Text	UAM	Text
0160	1116-S clock failed	0113	Clock alarms cleared
0161	1116-P clock failed		
0163	1114-S clock failed		
0165	1114-S, 1116-P clocks failed		
0167	1114-P clock failed		
0168	1114-P, 1116-S clocks failed		

DCM Alarms

Table D-6 shows the major DCM alarm and the clearing alarm that appears when the condition is resolved.

Table D-6. DCM Alarms

Major		Normal	
UAM	Text	UAM	Text
0084	IP Connection Unavailable	0085	IP Connection Available

UAM Balancing Matrix

DLK Alarms

Table D-7 shows the minor DLK alarm and the clearing alarm that appears when the condition is resolved.

Table D-7. DLK Alarms

Minor		Normal	
UAM	Text	UAM	Text
0155	STPLAN connection unavailable	0156	STPLAN connection available

DPC Alarms

Table D-8 shows the critical, minor, and normal DPC alarms and the clearing alarm that appears when each condition is resolved.

Table D-8. DPC Alarms

Critical		Other Alarm Conditions Which Clear Given Alarm		Normal	
UAM	Text	UAM	Text	UAM	Text
0313	DPC is prohibited	0312	DPC is restricted	0311	DPC is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0402	Alarm cleared by deleting route
		0334	DPC subsystem is Abnormal		
Minor		Other Alarm Conditions Which Clear Given Alarm		Normal	
UAM	Text	UAM	Text	UAM	Text
0312	DPC is restricted	0313	DPC is prohibited	0311	DPC is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0402	Alarm cleared by deleting route
		0334	DPC subsystem is Abnormal		
Normal		Other Alarm Conditions Which Clear Given Alarm		Normal	
UAM	Text	UAM	Text	UAM	Text
0315	Route is restricted	0316	Route is prohibited	0314	Route is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0402	Alarm cleared by deleting route
0316	Route is prohibited	0315	Route is restricted	0314	Route is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0402	Alarm cleared by deleting route

DPC System Alarms

Table D-9 shows the critical and normal DPC System alarms and the clearing alarm that appears when each condition is resolved.

Table D-9. DPC System Alarms

Critical		Other Alarm Conditions Which Clear Given Alarm		Normal	
UAM	Text	UAM	Text	UAM	Text
0325	DPC subsystem is blocked	0312	DPC is restricted	0324	DPC subsystem is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0327	DPC subsystem has been deleted
		0326	DPC subsystem is prohibited	0333	DPC subsystem is Normal
		0332	DPC subsystem is prohibited and blocked		
		0334	DPC subsystem is Abnormal		
0326	DPC subsystem is prohibited	0312	DPC is restricted	0324	DPC subsystem is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0327	DPC subsystem has been deleted
		0325	DPC subsystem is blocked	0333	DPC subsystem is Normal
		0332	DPC subsystem is prohibited and blocked		
		0334	DPC subsystem is Abnormal		
0332	DPC subsystem is prohibited and blocked	0312	DPC is restricted	0324	DPC subsystem is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0327	DPC subsystem has been deleted
		0325	DPC subsystem is blocked	0333	DPC subsystem is Normal
		0326	DPC subsystem is prohibited		
		0334	DPC subsystem is Abnormal		
0334	DPC subsystem is Abnormal	0319	REPT-MTPLP-DET: Circ rte det(cong)	0324	DPC subsystem is allowed
				0327	DPC subsystem has been deleted
				0333	DPC subsystem is Normal
0319	REPT-MTPLP-DET: Circ rte det(cong)			0340	RCVRY-MTPLP-RST: Circ rte status cleared
0320	REPT-MTPLP-SUST: Sustained circ rt (cong)			0340	RCVRY-MTPLP-RST: Circ rte status cleared
				0337	DPC-SS status changed ^a

a. When DPC subsystem transitions between prohibited and block to either blocked or prohibited only, this UAM is raised.

UAM Balancing Matrix

DSM Alarms

Table D-10 shows the major DSM alarm and the clearing alarm that appears when the condition is resolved.

Table D-10. DSM Alarms

Major		Normal	
UAM	Text	UAM	Text
0084	IP Connection Unavailable	0085	IP Connection Available

E1 Port Alarms

Table D-11 shows the major E1 alarms and the clearing alarm that appears when each condition is resolved.

Table D-11. E1 Port Alarms

Major		Normal	
UAM	Text	UAM	Text
0381	REPT-E1F:FAC-E1 LOS failure	0386	RCVRY-E1F:FAC-E1 available
0382	REPT-E1F:FAC-E1 LOF failure		
0383	REPT-E1F:FAC-E1 AIS detected		
0384	REPT-E1F:FAC-E1 Far End failure		
0385	REPT-E1F:FAC-E1 10E-3 BER failed		
0387	REPT-E1F:FAC-E1 unavailable		

EIR Alarms

Table D-12 shows the critical and minor EIR alarms and the clearing alarm that appears when each condition is resolved.

Table D-12. EIR Alarms

Critical		Normal	
UAM	Text	UAM	Text
0455	EIR System is not available	0458	EIR Subsystem is available
		0459	EIR Subsystem is removed
0456	EIR Subsystem is disabled	0458	EIR Subsystem is available
		0459	EIR Subsystem is removed
Minor		Normal	
0457	EIR Subsystem normal,card(s) abnormal	0458	EIR Subsystem is available
		0459	EIR Subsystem is removed

EMAP Alarms

Table D-13 shows the major and minor EAMP alarms and the clearing alarm that appears when each condition is resolved.

Table D-13. EMAP Alarms

Major		Normal	
UAM	Text	UAM	Text
0084	IP Connection Unavailable	0085	IP Connection Available

EMAP (NDC) Alarms

Table D-14 shows the major and minor EAMP (NDC) alarms and the clearing alarm that appears when each condition is resolved.

Table D-14. EMAP (NDC) Alarms

Major		Normal	
UAM	Text	UAM	Text
0084	IP Connection Unavailable	0085	IP Connection Available
Minor		Normal	
0179	NDC Q.3 Association is unavailable	0180	NDC Q.3 Association is available

ENET Alarms

Table D-15 shows the major ENET alarms and the clearing alarm that appears when each condition is resolved.

Table D-15. ENET Alarms

Major		Normal	
UAM	Text	UAM	Text
0537	Ethernet error threshold exceeded	0538	Ethernet error threshold cleared
0539	Ethernet Interface Down	0540	Ethernet Interface Up

EROUTE Alarms

Table D-16 shows the critical, major, and minor EROUTE alarms and the clearing alarm that appears when each condition is resolved.

Table D-16. EROUTE Alarms

Critical		Normal	
UAM	Text	UAM	Text
0468	All STC Networks Unavailable	0470	EROUTE is Removed

UAM Balancing Matrix

Table D-16. EROUTE Alarms (Continued)

0469	All STC Cards Unavailable	0471	EROUTE System is Available
		0474	EROUTE capacity normal, card(s) abnormal
Major		Normal	
0473	EROUTE System Capacity Exceeded	0470	EROUTE is Removed
0482	Card(s) have been denied EROUTE service	0471	EROUTE System is Available
		0474	EROUTE capacity normal, card(s) abnormal
Minor		Normal	
0472	EROUTE System Threshold Exceeded	0470	EROUTE is Removed
		0471	EROUTE System is Available
		0474	EROUTE capacity normal, card(s) abnormal
0475	NTP Time Unavailable	0476	NTP Time Available

Frame Alarms

Table D-17 shows the major Frame alarms and the clearing alarms that appear when the condition is resolved.

Table D-17. Frame Alarms

Critical		Normal	
UAM	Text	UAM	Text
0520	Frame power usage reached LVL3	0523	Frame power usage normal
Major		Normal	
UAM	Text	UAM	Text
0521	Frame power usage reached LVL2	0523	Frame power usage normal
Minor		Normal	
UAM	Text	UAM	Text
0522	Frame power usage reached LVL1	0523	Frame power usage normal

Fuse Alarms

Table D-18 shows the major fuse alarm and the clearing alarm that appears when the condition is resolved.

Table D-18. Fuse Alarms

Major		Normal	
UAM	Text	UAM	Text
0082	Alarm in fuse panel	0083	Fuse panel alarm has cleared

GLS Alarms

Table D-19 shows the critical and major GLS alarms and the clearing alarm that appears when each condition is resolved.

Table D-19. GLS Alarms

Critical		Normal	
UAM	Text	UAM	Text
0292	GLS is not available	0290	GLS is available
		0293	GLS have been removed from the system
Major		Normal	
0291	GLS is at minimum service limit	0290	GLS is available
		0293	GLS have been removed from the system

GPL Alarms

Table D-20 shows the minor GPL alarms and the clearing alarm that appears when each condition is resolved.

Table D-20. GPL Alarms

Critical		Normal	
UAM	Text	UAM	Text
0002	Card is not running approved GPL	0003	Alarm cleared for GPL
0004	Card is running non-activated GPL	0005	Alarm cleared running non-activated GPL
0040	GPL is corrupted	0039	GPL has been corrected

HS Clock System Alarms

Table D-21 shows the critical, major, and minor HS Clock System alarms and the clearing alarm that appears when each condition is resolved.

Table D-21. HS Clock System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0197	All high speed clocks have failed	0198	High Speed clock alarm(s) cleared
Major		Normal	
UAM	Text	UAM	Text

UAM Balancing Matrix

Table D-21. HS Clock System Alarms (Continued)

0185	1116-PHS, 1116-SHS clocks failed	0198	High Speed clock alarm(s) cleared
0187	1114-SHS, 1116-SHS clocks failed		
0189	1114-SHS, 1116-PHS,1116-SHS clks failed		
0192	1114-PHS, 1116-PHS clocks failed		
0193	1114-PHS, 1116-PHS,1116-SHS clks failed		
0194	1114-PHS, 1114-SHS clocks failed		
0195	1114-PHS, 1114-SHS, 1116-SHS clks failed		
0196	1114-PHS, 1114-SHS, 1116-PHS clks failed	409	Clock configuration corrected
403	1114 E1/T1 clock requires TDM-GTI		
404	1116 E1/T1 clock requires TDM-GTI		
405	1114, 116 E1/T1 clock requires TDM-GTI		
406	1114 Clock selection mismatch		
407	1116 Clock selection mismatch		
408	1114, 1116 Clock selection mismatch		
Minor		Normal	
UAM	Text	UAM	Text
0183	1116-SHS clock failed	0198	High speed clock alarm(s) cleared
0184	1116-PHS clock failed		
0186	1114-SHS clock failed		
0188	1114-SHS, 1116-PHS clocks failed		
0190	1114-PHS clock failed		
0191	1114-PHS, 1116-SHS clocks failed		

IMT Bus Alarms

Table D-22 shows the major, minor, and normal IMT Bus alarms and the clearing alarm that appears when each condition is resolved.

Table D-22. IMT Bus Alarms

Major		Normal	
UAM	Text	UAM	Text
0108	Major IMT failure detected	0106	IMT bus alarm cleared
Minor		Normal	
0107	Minor IMT failure detected	0106	IMT bus alarm cleared
Normal		Normal	
0098	IMT inhibited	0097	IMT allowed

IMT System Alarms

Table D-23 shows the critical, major, and minor IMT System alarms and the clearing alarm that appears when each condition is resolved.

Table D-23. IMT System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0112	Major failures detected on both IMTs	0109	All IMT system level alarms cleared
Major		Normal	
0111	Failure on both IMT A and IMT B	0109	All IMT system level alarms cleared
Minor		Normal	
0110	Failure detected on one IMT bus	0109	All IMT system level alarms cleared

INP System Alarms

Table D-24 shows the critical and minor NP System alarms and the clearing alarm that appears when each condition is resolved.

Table D-24. INP System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0395	Local Subsystem is not available	0394	Local Subsystem is available
0396	Local Subsystem is disabled	0397	Local Subsystem is removed
Minor		Normal	
0398	Local Subsystem normal,card(s) abnormal	0394	Local Subsystem is available
		0397	Local Subsystem is removed

IP7 Alarms

Table D-25 shows the major and minor IP Connection alarms and the clearing alarm that appears when each condition is resolved.

Table D-25. IP Connection Alarms

Major		Normal	
UAM	Text	UAM	Text
0277	AS Unavailable	0278	AS Available
0084	IP Connection Unavailable	0085	IP Connection Available
		0087	IP Connection manually removed
Minor		Normal	
0279	AS Restricted	0280	AS Unrestricted

UAM Balancing Matrix

Table D-25. IP Connection Alarms (Continued)

0086	IP Connection Congested	0085	IP Connection Available
		0087	IP Connection manually removed
0466	STC Network Unavailable	0467	STC Network Available
0536	IP Connection Excess Retransmits	0085	IP Connection Available
		0087	IP Connection manually removed

IP TPS System Alarms

Table D-26 shows the major IP TPS System alarm and the clearing alarm that appears when the condition is resolved.

Table D-26. IP TPS System Alarms

Major		Normal	
UAM	Text	UAM	Text
0114	System IP TPS threshold exceeded	0117	System IP TPS threshold normal

IP7 System Alarms

Table D-27 shows the major IP7 System alarm and the clearing alarm that appears when the condition is resolved.

Table D-27. IP7 System Alarms

Major		Normal	
UAM	Text	UAM	Text
0535	IP Connection Restricted	0085	IP Connection Available

Linkset Alarms

Table D-28 shows the major Linkset alarm and the clearing alarms that appears when the condition is resolved.

Table D-28. Linkset Alarms

Major		Normal	
UAM	Text	UAM	Text
0115	Linkset IP TPS threshold exceeded	0118	Linkset IP TPS threshold normal
0318	REPT-LKSTO: link set prohibited	0317	RRCVRY-LKSTO: link set allowed
		0399	RRCVRY-LKSTO: Alarm clr'd by deleting SLK

LNP System Alarms

Table D-29 shows the critical and major LNP System alarms and the clearing alarm that appears when each condition is resolved.

Table D-29. LNP System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0424	LNP Subsystem is not available	0426	LNP Subsystem is available
		0425	LNP Subsystem normal, card(s) abnormal
0435	LNP Subsystem is disabled	0434	LNP Subsystem is removed
		0425	LNP Subsystem normal, card(s) abnormal
0287	RTDB Table Level 2 FAK Cap exceeded	0289	RTDB Table FAK Capacity Normal
Major		Normal	
0283	LNP Ported NPAs approaching Feat. Capacity	0284	LNP Ported NPAs Capacity Normal
0285	LNP Ported LRNs approaching Feat. Capacity	0286	LNP Ported LRNs Capacity Normal
0288	RTDB Table Level 1 FAK Cap exceeded	0289	RTDB Table FAK Capacity Normal
0436	LNP ACG node overload	0426	LNP Subsystem is available

LSMS Connection Alarms

Table D-30 shows the critical and major LSMS Connection alarms and the clearing alarm that appears when each condition is resolved.

Table D-30. LSMS Connection Alarms

Critical		Normal	
UAM	Text	UAM	Text
0041	LNP DB Maintenance required.	0042	LSMS bulk load complete.
Major		Normal	
0358	LSMS connection unavailable	0359	LSMS connection available

LSMS System Alarms

Table D-31 shows the critical and major LSMS System alarms and the clearing alarm that appears when each condition is resolved.

Table D-31. LSMS System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0356	LSMS unavailable	0355	LSMS is available

UAM Balancing Matrix

Table D-31. LSMS System Alarms (Continued)

		0357	All OAP terminals are removed
0350	OAP terminals inhibited	0355	LSMS is available
		0357	All OAP terminals are removed
Major		Normal	
0341	OAP unavailable	0353	OAP is available
0354	One OAP terminal unavailable	0357	All OAP terminals are removed
0362	LSMS is at min service limit	0355	LSMS is available
		0357	All OAP terminals are removed

MCPM Alarms

Table D-32 shows the major MCPM alarm and the clearing alarm that appears when the condition is resolved.

Table D-32. MCPM Alarms

Major		Normal	
UAM	Text	UAM	Text
0084	IP Connection Unavailable	0085	IP Connection Available

MEAS System Alarms

Table D-33 shows the critical, major, and minor MEAS System alarms and the clearing alarm that appears when each condition is resolved.

Table D-33. MEAS System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0518	Measurements subsystem unavailable	0519	Measurements subsystem available
Major		Normal	
0517	Degraded Mo-- multiple cards failed	0519	Measurements subsystem available
Minor		Normal	
0516	Degraded Mo-- 1 card failed	0519	Measurements subsystem available

MPS (ELAP/EPAP) Alarms

Table D-34 shows the critical, major, and minor MPS (ELAP/EPAP) alarms and the clearing alarm that appears when each condition is resolved.

Table D-34. MPS (ELAP/EPAP) Alarms

Critical		Normal	
UAM	Text	UAM	Text
0370	Critical Platform Failure(s)	0250	MPS available
0371	Critical Application Failure(s)		
0261	MPS unavailable		
Major		Normal	
0372	Major Platform Failure(s)	0250	MPS available
0373	Major Application Failure(s)		
Minor		Normal	
0374	Minor Platform Failure(s)	0250	MPS available
0375	Minor Application Failure(s)		

NOTE: Critical Platform/Application alarms cause the MPS to go OOS-MT and Major/Minor Platform/Applications alarms cause the MPS to go IS-ANR.

MPS Alarm Support

The MPS running software Release 2.0 (ELAP) or higher, Release 27.0 will support MPS alarms (370-375), as well as UAMs 442-451 against a card.

Table D-35. MPS Alarm Support

	Release 27.0 and higher
UAM #	Format
0442 0446 0447	CARD
0443-0445 0448-0451	CARD
0370-0375	MPS1
0250	MPS2

UAM Balancing Matrix

NDC System Alarms

Table D-36 shows the major NDC System alarms and the clearing alarm that appears when the condition is resolved.

Table D-36. NDC System Alarms

Major		Normal	
UAM	Text	UAM	Text
0181	NDC system is Unavailable	0182	NDC system is Available

RTX System Alarms

Table D-37 shows the major RTX system alarms and the clearing alarm that appears when the condition is resolved.

Table D-37. RTX System Alarms

Critical		Other alarm conditions which clear given alarm		Normal	
UAM	Text			UAM	Text
0534	RTX is prohibited	0533	RTX is restricted	0532	RTX is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0402	Alarm cleared by deleting route
Minor		Other alarm conditions which clear given alarm		Normal	
UAM	Text			UAM	Text
0533	RTX is restricted	0534	RTX is prohibited	0532	RTX is allowed
		0319	REPT-MTPLP-DET: Circ rte det(cong)	0402	Alarm cleared by deleting route

SCCP System Alarms

Table D-38 shows the critical, major, and minor SCCP system alarms and the clearing alarm that appears when each condition is resolved.

Table D-38. SCCP System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0331	SCCP is not available	0328	SCCP is available
		0335	SCCP is removed
0437	System SCCP TPS Capacity Exceeded	0329	SCCP capacity normal, card(s) abnormal
0453	Exceeded Service Error Threshold Lvl 2	0454	Service Error Threshold Alarm Cleared
Major		Normal	
0336	LIM(s) have been denied SCCP service	0328	SCCP is available

Table D-38. SCCP System Alarms (Continued)

		0335	SCCP is removed
0452	Exceeded Service Error Threshold Lvl 1	0454	Service Error Threshold Alarm Cleared
Minor		Normal	
0330	System SCCP TPS Threshold exceeded	0329	SCCP capacity normal, card(s) abnormal
		0335	SCCP is removed

SCCP Service Alarms

Table D-39 shows the critical, major, and minor SCCP service alarms and the clearing alarm that appears when each condition is resolved.

Table D-39. SCCP Service Alarms

Critical		Normal	
UAM	Text	UAM	Text
0528	Service is not available	0526	Service is available
		0530	Service is removed
0529	Service is disabled	0526	Service is available
		0530	Service is removed
Minor		Normal	
0527	Service abnormal	0526	Service is available
		0530	Service is removed

SEAS OAP Alarms

Table D-40 shows the major and minor SEAS OAP alarms and the clearing alarm that appears when each condition is resolved.

Table D-40. SEAS OAP Alarms

Major		Normal	
UAM	Text	UAM	Text
0341	OAP unavailable	0353	OAP is available
0342	SEAS UAL unavailable		
0354	One OAP terminal unavailable		
0360	EMS Agent unavailable	0361	EMS Agent available
Minor		Normal	
UAM	Text	UAM	Text
0364	Configuration data checksum mismatch	0365	Configuration data checksum alarm cleared

UAM Balancing Matrix

0363	OAP filesystem full	0361	EMS Agent available
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SEAS System Alarms

Table D-41 shows the critical and major SEAS System alarms and the clearing alarm that appears when each condition is resolved.

Table D-41. SEAS System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0349	SEAS unavailable	0351	SEAS is available
0350	OAP terminals inhibited	0352	SEAS is removed
Major		Normal	
0348	SEAS is at min service limit	0351	SEAS is available
		0352	SEAS is removed

SEAS X25 Alarms

Table D-42 shows the major and minor SEAS X25 alarms and the clearing alarm that appears when each condition is resolved.

Table D-42. SEAS X25 Alarms

Major		Normal	
UAM	Text	UAM	Text
0343	SEAS X.25 Link unavailable	0347	SEAS X.25 Link is available
0345	All SEAS UAL sessions unavailable		
Minor		Normal	
0344	SEAS PVC unavailable	0347	SEAS X.25 Link is available
0346	SEAS UAL session unavailable		

Security Log Alarm

Table D-43 shows the minor and normal Security Log alarms and the clearing alarm that appears when each condition is resolved.

Table D-43. Security Log Alarms

Minor		Normal	
UAM	Text	UAM	Text
0174	%full threshold reached-upload required	0177	Security log exception cleared
0175	LOGGUFROVFL-SECUL-G - upload required		

Table D-43. Security Log Alarms (Continued)

0176	Stby security log – upload required		
Normal		Normal	
0178	Security log failed	0177	Security log exception cleared

Security System Alarms

Table D-44 shows the major Security System alarm and the clearing alarm that appears when the condition is resolved.

Table D-44. Security System Alarms

Major		Normal	
UAM	Text	UAM	Text
0392	OA&M IP Security feature status is OFF	0393	OA&M IP Security feature status is ON
		0199	OA&M IP Security feature disabled

SLK Alarms

Table D-45 shows the major, minor, and normal SLK alarms and the clearing alarm that appears when each condition is resolved.

Table D-45. SLK Alarms

Major		Normal	
UAM	Text	UAM	Text
0201	REPT-LFK: remote NE loopback	0223	REPT-LKF: remote NE loopback cleared
		0401	Alarm cleared by deleting SLK
0202	REPT-LFK: H-P -too many interrupts	0200	RCVRY-LFK: link available
0203	REPT-LFK: lost data	0401	Alarm cleared by deleting SLK
0204	REPT-LFK: X-R -SUERM threshold exceeded		
0205	REPT-LFK: A-F -lvl-2 T1 expd (ready)		
0206	REPT-LFK: A-F -lvl-2 T1 expd(not ready)		
0207	REPT-LFK: A-F - lvl-2 T3 expired		
0208	REPT-LFK: A-F - lvl-2 T2 expired		
0209	REPT-LFK: A-F - failed proving period		
0210	REPT-LFK: O-A - received SIO		
0211	REPT-LFK: O-A - received SIN		
0212	REPT-LFK: O-A - received SIE		

UAM Balancing Matrix

Table D-45. SLK Alarms (Continued)

0213	REPT-LFK: O-A - received SIOS	0200	RCVRY-LFK: link available
0214	REPT-LFK: A-N - rcvd 2 of 3 invalid BSN	0401	Alarm cleared by deleting SLK
0215	REPT-LFK: A-N - rcvd 2 of 3 invalid FIB		
0216	REPT-LFK: remote congestion timeout		
0217	REPT-LFK: XDA - excess acknowledge delay		
0218	REPT-LFK: C-O - rcvd changeover order		
0219	REPT-LFK: false congestion restart		
0220	REPT-LFK: MTP link restart delayed		
0221	REPT-LFK: X25 link unavailable		
0222	REPT-LFK: remote FE loopback		
0224	REPT-LFK: link test failed		
0230	REPT-LKF: local blocked - thermal		
0232	REPT-LFK: remote blocked		
0233	REPT-LINK-MANUAV: local blocked		
0234	REPT-LFK: RMI remote inhibited		
0235	REPT-LINK-MGTINH: local inhibited		
0236	REPT-LFK: not aligned		
0237	REPT-LKF: LM Timer NO-CREDIT expired		
0238	REPT-LKF: XDA-Timer NO-RESPONSE expired		
0239	REPT-LKF: M-L - local processor outage		
0240	REPT-LKF: rcvd SSCOP END-proc. outage		
0241	REPT-LKF: rcvd SSCOP END-out of service		
0242	REPT-LKF: rcvd SSCOP END-protocol error		
0243	REPT-LKF:rcvd SSCOP END-mgmt initiated		
0244	REPT-LKF: F-C - DS1/E1 LOS failure		
0245	REPT-LKF: F-C - DS1/E1 LOF failure		
0246	REPT-LKF: F-C - DS1/E1 LCD failure		
0247	REPT-LKF: XER - ISERM threshold exceeded		
0158	X25 no logical channels available	0157	X25 logical channels available
Minor		Normal	
UAM	Text	UAM	Text
0116	Link expected IP TPS threshold exceeded	0119	Link IP TPS threshold normal

Table D-45. SLK Alarms (Continued)

0477	Congestion: Copy Function De-activated	0478	Copy Function Activated
		0479	Link not monitored
0531	Insufficient HW Copy Function Inhibited	0478	Copy Function Activated
		0479	Link not monitored
Normal		Normal	
UAM	Text	UAM	Text
0264	REPT-LINK-CGST: congestion level 0 to 1	0269	RCVRY-LINK-CGST:congestion has cleared
0265	REPT-LINK-CGST: congestion level 1 to 2	0268	RCVRY-LINK-CGST:congestion level 2 to 1
		0269	RCVRY-LINK-CGST:congestion has cleared
0266	REPT-LINK-CGST: congestion level 2 to 3	0267	RCVRY-LINK-CGST:congestion level 3 to 2
		0269	RCVRY-LINK-CGST:congestion has cleared
0270	REPT-LINK-CGST: discard level 0 to 1	0275	RVCRY-LINK-CGST: discard has cleared
0271	REPT-LINK-CGST: discard level 1 to 2	0274	RVCRY-LINK-CGST: discard level 2 to 1
		0275	RVCRY-LINK-CGST: discard has cleared
0272	REPT-LINK-CGST: discard level 2 to 3	0273	RVCRY-LINK-CGST: discard level 3 to 2
		0275	RVCRY-LINK-CGST: discard has cleared

STPLAN Alarms

Table D-46 shows the critical and major STPLAN alarms and the clearing alarm that appears when each condition is resolved.

Table D-46. STPLAN Alarms

Critical		Normal	
UAM	Text	UAM	Text
0153	STPLAN not available	0150	STPLAN is available
		0151	STPLAN capacity normal, card(s) abnormal
		0154	STPLAN is removed
Major		Normal	
0152	LIM(s) have been denied STPLAN service	0150	STPLAN is available
		0151	STPLAN capacity normal, card(s) abnormal
		0154	STPLAN is removed

System Alarms

Table D-47 shows the critical, major, and minor System alarms and the clearing alarm that appears when each condition is resolved.

UAM Balancing Matrix

Table D-47. System Alarms

Critical		Normal	
UAM	Text	UAM	Text
0308	Node isolated due to SLK failures	0309	Node is no longer isolated
0368	Temp Keys(s) have expired.	0366	Temp Key(s) expiration alarm cleared
0438	Degraded Mode, Invalid OAM HW config	0439	Exiting Degraded Mode
Major		Normal	
0367	Temp Keys(s) expiring soon.	0366	Temp Key(s) expiration alarm cleared
0011	Entering forced simplex mode	0018	Exiting forced simplex mode
0911	Dynamic database is inconsistent	0912	Dynamic database is now consistent
Minor		Normal	
0302	Cooling fan failure	0303	Cooling fans normal

System GPL Alarms

Table D-48 shows the minor GPL alarms and the clearing alarm that appears when each condition is resolved.

Table D-48. System GPL Alarms

Minor		Normal	
UAM	Text	UAM	Text
0143	System release GPL(s) not approved	0142	System release alarm cleared
0144	System release version unknown		

T1 Port Alarms

Table D-49 shows the major T1 alarms and the clearing alarm that appears when each condition is resolved.

Table D-49. T1 Port Alarms

Major		Normal	
UAM	Text	UAM	Text
0369	REPT-T1F:FAC-T1 unavailable	0380	RCVRY-T1F:FAC-T1 available
0376	REPT-T1F:FAC-T1 LOS failure		
0377	REPT-T1F:FAC-T1 LOF failure		
0378	REPT-T1F:FAC-T1 Remote Alarm		
0379	REPT-T1F:FAC-T1 Alarm		

Terminal Alarms

Table D-50 shows the minor Terminal alarm and the clearing alarm that appears when the condition is resolved.

Table D-50. Terminal Alarms

Minor		Normal	
UAM	Text	UAM	Text
0048	Terminal failed	0046	Terminal enabled

X-LIST Alarms

Table D-51 shows the major and minor X-LIST alarms and the clearing alarm that appears when each condition is resolved.

Table D-51. X-LIST Alarms

Major		Normal	
UAM	Text	UAM	Text
0338	X-LIST space full-entry(s) discarded	0339	X-LIST space full condition abated
Minor		Normal	
0321	X-LIST occupancy threshold exceeded	0322	X-List occupancy below threshold

E

Unsolicited Output Message Groups

Introduction..... E-2

Introduction

This appendix provides a list of the unsolicited alarm messages (UAMs) and unsolicited information messages (UIMs) generated by the EAGLE 5 ISS and the output groups that these messages are assigned to.

These messages are broadcast to the EAGLE 5 ISS terminals. To control which terminals these messages are broadcast, the messages have been placed into these output message groups. The **chg-trm** command is used to control to which terminals these groups of output messages are broadcast. For details about using the **chg-trm** command, see the “Changing Terminal Characteristics” in the “Configuring the OAP Port” procedure in the *Database Administration Manual - SS7*, or the **chg-trm** command description in the *Commands Manual*.

Scheduled Measurements for systems up to 700 links are sent to the Traffic Unsolicited Output Message Group and are not included in this appendix. No other unsolicited output is sent to this output group. Refer to Chapter 4, *Measurements* for detailed traffic measurement information. Refer to the System Administration Manual - System Management for information on configuring the measurements terminal for systems up to 700 links.

The messages are shown in these tables.

- Table E-1. System Maintenance Unsolicited Output Message Groups
- Table E-2. Link Maintenance Unsolicited Output Message Group
- Table E-3. Card Unsolicited Output Message Group
- Table E-4. Application Subsystem Unsolicited Output Message Group
- Table E-5. GTT Unsolicited Output Message Group
- Table E-6. GWS Unsolicited Output Message Group
- Table E-7. Clock Unsolicited Output Message Group
- Table E-8. Measurements Maintenance Unsolicited Output Message Group
- Table E-9. LNP Database Unsolicited Output Message Group
- Table E-10. Security Administration Unsolicited Output Message Group
- Table E-11. Program Update Unsolicited Output Message Group
- Table E-12. UIM Redirect Unsolicited Output Message Group
- Table E-13. Database Unsolicited Output Message Group
- Table E-14. MPS Unsolicited Output Message Group
- Table E-15. Monitor Unsolicited Output Message Group
- Table E-16. SLAN Maintenance Unsolicited Output Message Group
- Table E-17. SEAS Maintenance Unsolicited Output Message Group

Unsolicited Output Message Groups

NOTE: If the LNP feature is not on, the messages in the LNP Subscription and LNP Database Unsolicited Output Message groups are not displayed.

Each table contains the number of the UAM or UIM, the alarm level assigned to the message, and the text of the message. More information on these messages can be found in Chapter 3, *Corrective Maintenance*.

Table E-1. System Maintenance Unsolicited Output Message Groups

UAM/UIM Number	Alarm Level	Message Text
0002	Minor	Card is not running approved GPL
0003	None	Alarm cleared for GPL
0004	Minor	Card is running non-activated GPL
0005	None	Alarm cleared running non-activated GPL
0011	Major	Entering forced simplex mode
0018	None	Exiting forced simplex mode
0039	None	GPL has been corrected
0040	Minor	GPL is corrupted
0043	Major	Incorrect feature configuration
0044	Minor	Real time clock battery low
0045	None	Real time clock battery restored
0046	None	Terminal enabled
0047	Major	Card type not valid for application
0048	Minor	Terminal failed
0058	Critical	Critical customer trouble detected
0059	Major	Major customer trouble detected
0060	Minor	Minor customer trouble detected
0061	None	Customer trouble detected
0062	None	Customer trouble cleared
0063	Critical	Critical holdover clock trouble detected
0064	Major	Major holdover clock trouble detected
0065	Minor	Minor holdover clock trouble detected
0066	None	Holdover clock trouble cleared
0077	Critical	Card temperature is critical lvl:T2
0078	Major	Card temperature above nominal
0079	None	Card temperature within nominal levels
0082	Major	Alarm in Fuse Panel
0083	None	Fuse Panel alarm has cleared

Table E-1. System Maintenance Unsolicited Output Message Groups (Continued)

UAM/UIM Number	Alarm Level	Message Text
0097	None	IMT allowed
0098	None	IMT inhibited
0106	None	IMT Bus alarm cleared
0107	Minor	Minor IMT failure detected
0108	Major	Major IMT failure detected
0109	None	All IMT System level alarms cleared
0110	Minor	Failure detected on one IMT bus
0111	Major	Failure on both IMT A and IMT B
0112	Critical	Major failures detected on both IMTs
0114	Major	System IP TPS threshold exceeded
0117	None	System IP TPS normal
0142	None	System release alarm cleared
0143	Minor	System release GPL(s) not approved
0144	Minor	System release version unknown
0276	Major	Insufficient memory for IP7 provisioning
0277	Major	AS Unavailable
0278	None	AS Available
0279	Minor	AS Restricted
0280	None	AS Unrestricted
0294	None	REPT-ALMINH: alarm output PERM inhibit
0295	None	REPT-ALMINH: alarm output enabled
0296	None	REPT-ALMINH: alarm output TEMP inhibit
0302	Minor	Cooling fan failure
0303	None	Cooling fan normal
0308	Critical	Node isolated due to SLK failures
0309	None	Node is no longer isolated
0366	None	Temp Key(s) expiration alarm cleared
0367	Major	Temp Keys(s) expiring soon
0368	Critical	Temp Keys(s) have expired
0388	None	Illegal Address Error Cleared
0389	None	Card responding normally
0390	Major	Illegal Address Error
0391	Major	Card not responding Error

Unsolicited Output Message Groups

Table E-1. System Maintenance Unsolicited Output Message Groups (Continued)

UAM/UIM Number	Alarm Level	Message Text
0392	Major	OA&M IP Security feature is OFF
0393	None	OA&M IP Security feature is ON
0438	Critical	Degraded Mode, Invalid OAM HW config
0439	None	Exiting Degraded Mode
0466	Major	STC Network Unavailable
0467	None	STC Network Available
0500	None	Alarm being cleared for this device
0514	Major	Standby MASP is inhibited
0515	None	Standby MASP is allowed
0520	Critical	Frame power usage reached LVL3
0521	Major	Frame power usage reached LVL2
0522	Minor	Frame power usage reached LVL1
0523	None	Frame power usage normal
0524	None	REPT-ALMINH: alarm output TIMED inhibit
0525	None	Timed alm inh rdy to expire
0541	Critical	MSU cksum error threshold exceeded
0542	None	Cksum error threshold cleared
0911	Major	Dynamic database is inconsistent
0912	None	Dynamic database is now consistent
1000	None	MTP rcvd UPU - user part is not SCCP
1001	None	MTP rcvd Transfer Controlled (TFC)
1002	None	MTP rcvd invalid TFC - status 0
1003	None	MTP rcvd invalid H0/H1 code
1004	None	MTP rcvd unknown DPC
1059	None	Telnet terminal connection disconnected
1098	None	Unexpected disk access timeout
1105	None	REPT EVT:IMT GPL reloading
1106	None	REPT COND:IMT GPL reloading
1120	None	TRBL Queue is full: elements overwritten
1129	None	Ported subs SMSC matches Home SMSC Addr
1130	None	LOCREQ rcvd - IS412GSM not provisioned
1131	None	Invalid digits in IS41 MAP Digits parm
1196	None	IP Connection Congestion Timeout

Table E-1. System Maintenance Unsolicited Output Message Groups (Continued)

UAM/UIM Number	Alarm Level	Message Text
1197	None	IP Connection refused
1198	None	IP Connection, Cannot resolve RHOST
1200	None	INW ALT card as first to be preloaded
1201	None	INW MAIN card as last to be reset
1202	None	INW Asserted DDL inhibition
1203	None	INW Card reset command issued
1204	None	INW Waiting for card loading validation
1205	None	INW Detected card loaded
1206	None	INW Detected card reset or removed
1207	None	INW Allowed card to skip DDL inhibited
1208	None	INW Removed DDL inhibition
1209	None	INW Card must be reset/removed/inhibited
1210	None	INW Card failed to reset
1211	None	INW Failed to assert DDL inhibition
1212	None	INW Failed to remove DDL inhibition
1213	None	INW Card failed to DDL crossload
1214	None	INW Allowed card to DDL crossload
1237	None	Dynamic database audit not current
1298	None	Updates inhibited: loading stability
1299	None	Updates allowed: loading stability
1300	None	REPT EVT: Incremental Loading
1308	None	Updates inhibited: Target-Cell CRC Fail
1309	None	Updates inhibited: Source-Cell CRC Fail
1320	None	FPT value unprovisioned for frame
1321	None	Eagle RTDB Birthdate Mismatch
1322	None	Eagle RTDB Levels Invalid
1323	None	Eagle/Elap TN Quantity Mismatch
1324	None	Eagle/Elap NPANXX Quantity Mismatch
1325	None	Eagle/Elap LNRN Quantity Mismatch
1326	None	Eagle RTDB Depth Alert
1330	None	Mismatched UA Routing Context
1331	None	IP Route Table Entry Conflict
1333	None	IPGW RCVD MSG DISCARDED

Unsolicited Output Message Groups

Table E-1. System Maintenance Unsolicited Output Message Groups (Continued)

UAM/UIM Number	Alarm Level	Message Text
1334	None	IPGW TX MSG DISCARDED
1335	None	Table Information
1336	None	IPGW UA ERROR MSG RECEIVED
1337	None	UA HEARTBEAT TIMEOUT
1338	None	SCCP did not route - no PC in CgPA
1339	None	SCCP did not route - no dflt Clg PC Set
1340	None	REPT COND: TRBL resynch required
1349	None	MSU invalid size – discarded
1355	None	Card Integ Chk: MSU cksum err
1490	None	Telnet terminal connection successful
1491	None	Terminal enabled
1492	None	Terminal disabled

Table E-2. Link Maintenance Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0084	Major	IP Connection Unavailable
0085	None	IP Connection Available
0086	Minor	IP Connection Congested
0087	None	IP Connection manually removed
0115	Major	Linkset IP TPS threshold exceeded
0116	Minor	Link expected IP TPS threshold exceeded
0118	None	Linkset IP TPS normal
0119	None	Link IP TPS normal
0157	None	X25 logical channels available
0158	Minor	X25 no logical channels available
0200	None	RCVRY-LKF: link available
0201	Major	REPT-LKF: remote NE loopback
0202	Major	REPT-LKF: HWP - too many link interrupts
0203	Major	REPT-LKF: lost data
0204	Major	REPT-LKF: XER - SUERM threshold exceeded
0205	Major	REPT-LKF: APF - lvl-2 T1 expd (ready)
0206	Major	REPT-LKF: APF - lvl-2 T1 expd (not ready)

Table E-2. Link Maintenance Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0207	Major	REPT-LKF: APF - lvl-2 T3 expired
0208	Major	REPT-LKF: APF - lvl-2 T2 expired
0209	Major	REPT-LKF: APF - failed proving period
0210	Major	REPT-LKF: OSA - received SIO
0211	Major	REPT-LKF: OSA - received SIN
0212	Major	REPT-LKF: OSA - received SIE
0213	Major	REPT-LKF: OSA - received SIOS
0214	Major	REPT-LKF: ABN - rcvd 2 of 3 invalid BSN
0215	Major	REPT-LKF: ABN - rcvd 2 of 3 invalid FIB
0216	Major	REPT-LKF: remote congestion timeout
0217	Major	REPT-LKF: excess acknowledge delay
0218	Major	REPT-LKF: COO - rcvd changeover order
0219	Major	REPT-LKF: false congestion restart
0220	Major	REPT-LKF: MTP link restart delayed
0221	Major	REPT-LKF: X25 link unavailable
0222	Major	REPT-LKF: remote FE loopback
0223	None	REPT-LKF: remote NE loopback cleared
0224	Major	REPT-LKF: link test failed
0230	Major	REPT-LKF: local blocked - thermal
0232	Major	REPT-LKF: remote blocked
0233	Major	REPT-LINK-MANUAV: local blocked
0234	Major	REPT-LKF: RMI remote inhibited
0235	Major	REPT-LINK-MGTINH: local inhibited
0236	Major	REPT-LKF: not aligned
0237	Major	REPT-LKF: LM Timer NO-CREDIT expired
0238	Major	REPT-LKF: XDA-Timer NO-RESPONSE expired
0239	Major	REPT-LKF: MBL - local processor outage
0240	Major	REPT-LKF: rcvd SSCOP END-proc. outage
0241	Major	REPT-LKF: rcvd SSCOP END-out of service
0242	Major	REPT-LKF: rcvd SSCOP END-protocol error
0243	Major	REPT-LKF: rcvd SSCOP END-mgmnt initiated
0244	Major	REPT-LKF: FAC - DS1/E1 LOS failure
0245	Major	REPT-LKF: FAC - DS1/E1 LOF failure

Unsolicited Output Message Groups

Table E-2. Link Maintenance Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0246	Major	REPT-LKF: FAC - DS1/E1 LCD failure
0247	Major	REPT-LKF: XER - ISERM threshold exceeded
0264	None	REPT-LINK-CGST: congestion level 0 to 1
0265	None	REPT-LINK-CGST: congestion level 1 to 2
0266	None	REPT-LINK-CGST: congestion level 2 to 3
0267	None	RCVRY-LINK-CGST: congestion level 3 to 2
0268	None	RCVRY-LINK-CGST: congestion level 2 to 1
0269	None	RCVRY-LINK-CGST: congestion has cleared
0270	None	REPT-LINK-CGST: discard level 0 to 1
0271	None	REPT-LINK-CGST: discard level 1 to 2
0272	None	REPT-LINK-CGST: discard level 2 to 3
0273	None	RCVRY-LINK-CGST: discard level 3 to 2
0274	None	RCVRY-LINK-CGST: discard level 2 to 1
0275	None	RCVRY-LINK-CGST: discard has cleared
0304	Minor	REPT-NMTSK-DSCD: SNM Discard Onset
0305	None	RECVY-NMTSK-DSCD: SNM Discard Abated
0306	Minor	SNM Overload Onset
0307	None	SNM Overload Abated
0311	None	DPC is allowed
0312	Minor	DPC is restricted
0313	Critical	DPC is prohibited
0314	None	Route is allowed
0315	None	Route is restricted
0316	None	Route is prohibited
0317	None	RCVRY-LKSTO: link set allowed
0318	Major	REPT-LKSTO: link set prohibited
0319	Critical	REPT-MTPLP-DET: Circ rte det(cong)
0320	Critical	REPT-MTPLP-SUST: Sustained circ rte(cong)
0321	Minor	X-LIST occupancy threshold exceeded
0322	None	X-LIST occupancy below threshold
0324	None	DPC subsystem is allowed
0325	Critical	DPC subsystem is blocked
0326	Critical	DPC subsystem is prohibited

Table E-2. Link Maintenance Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0327	None	DPC subsystem has been deleted
0332	Critical	DPC Subsystem is prohibited and blocked
0333	None	DPC Subsystem is Normal
0334	Critical	DPC Subsystem is Abnormal
0337	None	DPC-SS status changed
0338	Major	X-LIST space full-entry(s) discarded
0339	None	X-LIST space full condition abated
0340	None	RCVRY-MTPLP-RST:Circ rte status cleared
0369	Major	REPT-T1F:FAC-T1 unavailable
0376	Major	REPT-T1F:FAC-T1 LOS failure
0377	Major	REPT-T1F:FAC-T1 LOF failure
0378	Major	REPT-T1F:FAC-T1 Remote Alarm
0379	Major	REPT-T1F:FAC-T1 Alarm
0380	None	RCVRY-T1F:FAC-T1 available
0381	Major	REPT-E1F:FAC-E1 LOS failure
0382	Major	REPT-E1F:FAC-E1 LOF failure
0383	Major	REPT-E1F:FAC-E1 AIS detected
0384	Major	REPT-E1F:FAC-E1 Far End Failure
0385	Major	REPT-E1F:FAC-E1 10E-3 BER failed
0386	None	RCVRY-E1F:FAC-E1 available
0387	Major	REPT-E1F:FAC-E1 unavailable
0399	None	RCVRY-LKSTO: Alarm clr'd by deleting SLK
0401	None	Alarm cleared by deleting SLK
0402	None	Alarm cleared by deleting route
0500	None	Alarm being cleared for this device
0532	None	RTX is allowed
0533	Minor	RTX is restricted
0534	Critical	RTX is prohibited
0535	Minor	IP Connection Restricted
0536	Minor	IP Connection Excess Retransmits
0537	Major	Ethernet error threshold exceeded
0538	None	Ethernet error threshold cleared
0539	Major	Ethernet Interface Down

Unsolicited Output Message Groups

Table E-2. Link Maintenance Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0540	None	Ethernet Interface Up
0558	Critical	REPT-MTPLP-DET: Circ rte det (cong)
1016	None	MTP Adj PC not in routing table
1017	None	MTP Message Received for Network 255
1018	None	REPT-MTPERR: MTP received - invalid SIO
1070	None	SLTC failure: invalid Point Code (OPC)
1071	None	SLTC failure: invalid SLC
1072	None	SLTC failure: no response
1073	None	SLTC failure: bad data pattern
1075	None	MTP: link bypassed SLT phase
1076	None	SLTC failure: invalid Point Code (DPC)
1077	None	SLTC failure: failed link
1078	None	SLTC success: manual test passed
1079	None	SLTC aborted: unable to perform the test
1081	None	MTP: Changeback T5 timeout
1084	None	GWS MSU discarded by redirect function
1085	None	GWS MSU too large to be redirected
1086	None	LFS test terminated with OAM switch over
1087	None	MTP RSTRT rcvd unexpected user traffic
1088	None	REPT-MTP-RSTRT: MTP Restart started
1089	None	RCVRY-MTP-RSTRT: MTP Restart Completed
1090	None	ITU GWY:CPC conversion failure
1091	None	ITU GWY:OPC conversion failure
1092	None	ITU GWY:H0H1 conversion failure
1093	None	ITU GWY:rcvd msg type cannot convert
1094	None	ITU GWY:Invalid ISUP msg structure
1095	None	ITU GWY:GRS buffer full
1096	None	ITU GWY:RSC buffer full
1097	None	ITU GWY:CGB buffer full
1100	None	GWS rcvd H0/H1 that is not allowed
1104	None	IP Connection Failed
1133	None	GX25 outbound data exceeds packet size
1134	None	GX25 route not found

Table E-2. Link Maintenance Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1135	None	GX25 route not available
1136	None	GX25 route already connected
1137	None	GX25 incorrect X25 address
1138	None	GX25 unsupported packet type received
1139	None	GX25 unsupported MSU type received
1140	None	GX25 DPC not defined
1141	None	GX25 unrecognized X25 calling address
1142	None	GX25 unrecognized X25 called address
1143	None	GX25 cannot make connection
1144	None	GX25 logical channel cleared
1145	None	GX25 unexpected restart received
1146	None	REPT-XLST-TIMO: X-LIST entry expired
1147	None	MTP Invalid TFA received
1148	None	MTP Invalid TFR received
1149	None	SLK Level-3 T19 timer expired
1150	None	SLK Inhibit denied
1151	None	SLK Inhibit response timeout
1152	None	SLK Uninhibit denied
1153	None	SLK Uninhibit response timeout
1154	None	MSU-received threshold exceeded
1155	None	MSU-rejected threshold exceeded
1156	None	Loopback success
1157	None	Loopback failed
1158	None	Loopback aborted
1159	None	Loopback in progress
1160	None	GWS rcvd ISUP that is not allowed
1170	None	Loopback prevented
1171	None	Loopback invalid
1172	None	REPT-OVSZMSG: SCCP MSU too large to route
1173	None	REPT-OVSZMSG: MTP MSU too large to route
1177	None	Cnvrns Discard: SCCP MSU too large
1184	None	Cnvrns Discard: Invalid SCCP element len
1233	None	MTP Invalid ITU TFR RCVD

Unsolicited Output Message Groups

Table E-2. Link Maintenance Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1305	None	MTP rcvd UPU-User SCCP, Cause invalid
1332	None	Invalid Initial M2PA FSN Received
1345	None	CRD Auto-Clear Sent to All MTP Card

Table E-3. Card Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0001	Major	Card has reset
0008	Major	Active MASP has become isolated
0009	None	MASP became active
0010	None	MASP became standby
0013	Major	Card is isolated from the system
0014	None	Card is present
0021	Minor	Clock A for card failed, Clock B normal
0022	Minor	Clock B for card failed, Clock A normal
0023	Minor	Clocks A and B for card failed
0024	None	Clock A for card normal
0025	None	Clock B for card normal
0026	None	Clocks A and B for card normal
0033	None	Card database has been corrected
0034	Minor	Card database is inconsistent
0035	Minor	Card database is corrupted
0036	None	Card backup database has been corrected
0037	Minor	Card backup database is inconsistent
0038	Minor	Card backup database is corrupted
0053	Major	Standby TDM failure
0054	None	Standby TDM failure cleared
0055	Minor	Persistent device state tbl corrupt
0056	Minor	Persistent device state tbl diff version
0057	None	Persistent device state tbl corrected
0077	Critical	Card temperature is critical lvl:T2
0078	Major	Card temperature above nominal
0079	None	Card temperature within nominal levels

Table E-3. Card Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0092	Critical	MDAL not responding
0093	None	MDAL alarm cleared
0096	None	Card has been reloaded
0099	Major	Incompatible HW for provisioned slot
0102	Minor	Motherboard BIP invalid
0103	None	Motherboard BIP valid
0130	None	Card successfully loaded with data
0132	Major	Loading failed: table not found
0133	Major	Loading failed: data read Error
0134	Major	Loading failed: bad checksum returned
0135	Major	Loading failed: GPL load timeout
0136	Major	Loading failed: data load timeout
0137	Major	Loading failed: invalid GPL
0138	Major	Loading failed: GPL format error
0139	Major	Loading failed: disk read prep error
0140	Major	Loading failed: disk read response error
0141	Major	Loading failed: disk read failed
0145	Minor	HS Clock A for card failed, B normal
0146	Minor	HS Clock B for card failed, A normal
0147	Minor	High Speed Clocks A & B for card failed
0148	None	High Speed Clock A for card normal
0149	None	High Speed Clock B for card normal
0159	None	High Speed Clocks A & B for card normal
0297	Major	Incorrect LIM port configuration
0298	Minor	Card not using config. SCTP csum method
0299	None	Config. SCTP csum method alarm cleared
0300	Major	TVG Grant Failure
0301	None	TVG Grant Recovery
0400	None	Alarm cleared by deleting card
0422	Major	Insufficient memory for LNP
0423	None	Card reload attempted
0441	Major	Incorrect MDB - CPU
0442	Critical	RTDB database capacity is 95% full

Unsolicited Output Message Groups

Table E-3. Card Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0443	Major	RTDB database is corrupted
0444	Minor	RTDB database is inconsistent
0445	None	RTDB database has been corrected
0446	Major	RTDB database capacity is 80% full
0447	None	RTDB database memory alarm cleared
0448	Minor	RTDB database is incoherent
0449	Major	RTDB resynchronization in progress
0451	Major	RTDB reload is required
0452	Major	Exceeded Service Error Threshold Lvl1
0453	Critical	Exceeded Service Error Threshold Lvl 2
0454	None	Service Error Threshold Alarm Cleared
0492	Minor	RTDB database is 80% full
0493	Major	RTDB database is 100% full
0500	None	Alarm being cleared for this device
0901	Major	Card DB load timeout, check GLS card
0902	None	Card DB is stable
0903	Major	IP Link A is down
0904	None	IP Link A is up
0905	Major	IP Link B is down
0906	None	IP Link B is up
0907	None	HW limiting TPS rate alarm cleared
0908	Major	HW cannot support purchased TPS rate
1082	None	Amem single bit error report
1238	None	Full database reload initiated
1239	None	LNP updates inhibited: loading stability
1240	None	LNP updates allowed: loading stability

Table E-4. Application Subsystem Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0283	Major	LNP Ported LRNs approaching Feat. Capacity
0284	None	LNP Ported LRNs Capacity Normal
0285	Major	LNP Ported NPAs approaching Feat. Capacity

Table E-4. Application Subsystem Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0286	None	LNP Ported NPAs Capacity Normal
0287	Critical	RTDB Table Level 2 FAK Cap Exceeded
0288	Major	RTDB Table Level 1 FAK Cap Exceeded
0289	None	RTDB Table FAK Capacity Normal
0394	None	Local Subsystem is available
0395	Critical	Local Subsystem is not available
0396	Critical	Local Subsystem is disabled
0397	None	Local Subsystem is removed
0398	Minor	Local Subsystem normal, card(s) abnormal
0424	Critical	LNP Subsystem is not available
0425	None	LNP Subsystem normal, card(s) abnormal
0426	None	LNP Subsystem is available
0434	None	LNP Subsystem is removed
0435	Critical	LNP Subsystem is disabled
0436	Major	LNP ACG node overload
0452	Major	Exceeded Service Error Threshold Lvl 1
0453	Critical	Exceeded Service Error Threshold Lvl 2
0454	Normal	Service Error Threshold Alarm Cleared
0455	Critical	EIR Subsystem is not available
0456	Critical	EIR Subsystem is disabled
0457	Minor	EIR Subsystem normal, card(s) abnormal
0458	None	EIR Subsystem is available
0459	None	EIR Subsystem removed
0526	None	Service is available
0527	Minor	Service abnormal
0528	Critical	Service is not available
0529	Critical	Service is disabled
0530	None	Service is removed
0500	None	Alarm being cleared for this device
1030	None	Inh EIR SS request already outstanding
1031	None	Failure Inhibiting EIR SS
1102	None	Invalid Length for Map IMEI Parameter
1103	None	LSS:No Map IMEI Parameter present

Unsolicited Output Message Groups

Table E-4. Application Subsystem Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1118	None	Audit of LNP backup database completed
1119	None	LNP database audit - internal error
1121	None	LNP rcvd query from unknown CGPA PC
1122	None	LNP rcvd query with undefined TT
1123	None	LNP rcvd query with Message Relay TT
1124	None	LNP Database IMPORT started
1164	None	Inh LNP SS request already outstanding
1165	None	Failure Inhibiting LNP SS
1166	None	ACG Node Overload Level Change
1169	None	SCCP rcvd inv TCAP portion
1174	None	Inh Local SS request already outstanding
1175	None	Failure Inhibiting Local SS
1241	None	REPT EVT:LNP Incremental Loading
1242	None	Conv to intl num - Dflt CC not found
1243	None	Conv to intl num - Dflt NC not found
1244	None	Conv to intl num - Dflt MCC not found
1245	None	Conv to intl num - Dflt MNC not found
1246	None	Invalid length of conditioned digits
1247	None	Conversion of MGT to IMSI not possible
1255	None	IS-41 LNP Qry rejected: WNP is OFF
1256	None	MNP Circular Route detected
1260	None	LSS: Unsupported TCAP msg type
1261	None	LSS: Invalid len in transaction portion
1262	None	LSS: Invalid len in dialogue portion
1263	None	LSS: Invalid len in component portion
1264	None	LSS: No originating transaction ID
1265	None	LSS: Invalid transaction ID len
1266	None	LSS: Destination transaction ID in Begin
1267	None	LSS: No External element
1268	None	LSS: No External Object Identifier
1269	None	LSS: Not Structured Dialogue
1270	None	LSS: No External ASN1-Type
1271	None	LSS: No Dialogue Request

Table E-4. Application Subsystem Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1272	None	LSS: No Application Context Name
1273	None	LSS: No ACN Object Identifier
1274	None	LSS: No component portion
1275	None	LSS: First component not an Invoke
1276	None	LSS: No Invoke ID
1277	None	LSS: No operation code
1278	None	LSS: No parameter (set/sequence)
1279	None	LSS: Unsupported network type
1280	None	LSS: Unsupported SCCP msg type
1281	None	LSS: No SCCP CDPA SSN
1282	None	LSS: Unsupported SCCP CDPA GTI
1283	None	LSS: Unsupported SCCP CGPA RI
1284	None	LSS: Unknown SSP PC
1285	None	LSS: No SCCP CGPA SSN
1286	None	LSS: Invalid INAP CalledPartyNumber len
1287	None	LSS: Unsupported ACN Object ID len
1288	None	LSS: Unsupported operaton code
1289	None	LSS: No parameter sequence
1290	None	LSS: No INAP ServiceKey parameter
1291	None	LSS: No INAP CalledPartyNumber parameter
1292	None	LSS: Parameters out of sequence
1293	None	LSS: Linked ID in query
1294	None	Invalid digits in MAP MSISDN parameter
1295	None	Translation PC is EAGLE's
1296	None	Translation PC type is ANSI
1297	None	Invalid length of prefix/suffix digits
1306	None	GSMOPTS: EIR Global Response in ON
1307	None	GSMOPTS: EIR Global Response in OFF

Table E-5. GTT Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0328	None	SCCP is available
0329	None	SCCP capacity normal, card(s) abnormal

Unsolicited Output Message Groups

Table E-5. GTT Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0330	Major	System SCCP TPS Threshold exceeded
0331	Critical	SCCP is not available
0335	None	SCCP is removed
0336	Major	LIM(s) have been denied SCCP service
0437	Critical	System SCCP TPS Capacity Exceeded
0500	None	Alarm being cleared for this device
1019	None	SCCP rcvd invalid UDTS/XUDTS msg
1020	None	SCCP rcvd invalid XUDT msg
1021	None	SCCP rcvd invalid XUDTS msg
1023	None	SCCP rcvd unknown msg type
1024	None	SCCP rcvd inv msg length
1025	None	SCCP rcvd inv msg class
1029	None	SCCP rcvd inv Cld Party - bad GT ind
1033	None	SCCP rcvd inv Cld Party - bad network
1034	None	SCCP rcvd inv Cld Party - no SSN
1035	None	SCCP rsp did not route - invalid GTI
1036	None	SCCP rsp did not route - invalid TT
1037	None	SCCP rsp did not route - bad Xlation
1038	None	SCCP rsp did not route - SSP not True PC
1039	None	SCCP rsp did not route - bad Selectors
1040	None	ITU <-> ANSI translation not supported
1041	None	SCCP did not route - no SSN in msg or DB
1042	None	SCCP rcvd inv GT - invalid Trans. Type
1043	None	SCCP did not route - bad translation If the UIMRD field in rtrv-stpopts is set to yes, this message is output in the UIM Redirect output group (see Table E-12). Otherwise, this message is output in the System Maintenance output group.
1044	None	SCCP did not route - DPC OOS
1045	None	SCCP did not route - DPC congested
1046	None	SCCP did not route - DPC not in MAP tbl
1047	None	SCCP did not route - SS OOS
1048	None	SCCP did not route - SS congested
1049	None	SCCP did not route - SS not in MAP tbl
1050	None	SCCP-CNV: Unable to convert ANSI CDPA GT
1051	None	SCCP-CNV: Unable to convert ANSI CGPA GT
1052	None	SCCP-CNV: Unable to convert ITU CDPA GT
1053	None	SCCP-CNV: Unable to convert ITU CGPA GT

Table E-5. GTT Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1054	None	SCCP rcvd inv LSS - bad SSN
1055	None	SCCP rcvd inv SCMG - bad AFTPC
1056	None	SCCP rcvd inv SCMG - bad subsystem
1057	None	SCCP rcvd inv SCMG - bad length
1058	None	SCCP rcvd inv SCMG - bad msg type
1063	None	SCCP screen set is too large
1107	None	SCCP XUDT (S) msg: Hop Counter violation
1108	None	SCCP XUDT (S) msg: inv opt portion len
1109	None	XUDT(S) msg: inv segmentation parm
1178	None	Cnvrsn Discard: Invalid SCCP msg type
1179	None	Cnvrsn Discard: CGPA PC alias undefined
1180	None	Cnvrsn Discard: Aft. PC alias undefined
1181	None	Cnvrsn Discard: Invalid SCMG msg type
1182	None	Cnvrsn Discard: Invalid TCAP element
1183	None	Cnvrsn Discard: Invalid TCAP element len
1189	None	SCCP did not route: DPC not in RTE table
1190	None	SCCP rcvd inv Clg Party - bad GT ind
1191	None	SCCP rcvd inv Clg Party - bad selectors
1192	None	SCCP translation found: XLAT=UDTS
1193	None	SCCP translation found: XLAT=DISC
1195	None	SCCP did not route: DPC/SS not in Mapset
1219	None	SCCP rcvd inv Cld Party - bad GT ind
1220	None	SCCP rcvd inv Cld Party - bad network
1221	None	SCCP rcvd inv Cld Party - no SSN
1222	None	SCCP rcvd inv Cld Party - bad Selectors
1223	None	SCCP rcvd inv Cld Party - bad Xlation
1224	None	SCCP rcvd inv Cld Party - bad SSN
1225	None	SCCP did not route - DPC OOS
1226	None	SCCP did not route - DPC congested
1227	None	SCCP did not route - DPC not in MAP tbl
1228	None	SCCP did not route - SS OOS
1229	None	SCCP did not route - SS congested
1230	None	SCCP did not route - SS not in MAP tbl
1231	None	SCCP Encode Failure
1232	None	SCCP Encode Failure 2
1248	None	GSM Map Screening rcvd unknown orig

Unsolicited Output Message Groups

Table E-5. GTT Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1249	None	SCCP rcvd GSM Map Opcode w/ forbid param
1250	None	SCCP rcvd undefined Map Op-Code

Table E-6. GWS Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0290	None	GLS is available
0291	Major	GLS is at minimum service limit
0292	Critical	GLS is not available
0293	None	GLS have been removed from the system
0500	None	Alarm being cleared for this device
1005	None	GWS rcvd OPC that is not allowed
1006	None	GWS rcvd DPC that is not allowed
1007	None	GWS rcvd OPC that is blocked
1008	None	GWS rcvd DPC that is blocked
1009	None	GWS rcvd SIO that is not allowed
1010	None	GWS rcvd a priority that is not allowed
1011	None	GWS rcvd TFC, AFTPC not in routing tbl
1012	None	GWS rcvd Clg Party that is not allowed
1013	None	GWS rcvd Cld Party that is not allowed
1014	None	GWS rcvd Translation Type not allowed
1015	None	GWS rcvd SCMG with not allowed AFTPC
1060	None	Map Screening cannot generate ATIERR
1062	None	Text string with screen set name & line #(<screen set name> too large)
1064	None	GWS rcvd TFP, AFTPC not in routing tbl
1065	None	GWS rcvd TFR, AFTPC not in routing tbl
1066	None	GWS rcvd TFA, AFTPC not in routing tbl
1067	None	GWS rcvd UPU, AFTPC not in routing tbl
1068	None	GWS rcvd RSP, AFTPC not in routing tbl
1069	None	GWS rcvd RSR, AFTPC not in routing tbl
1110	None	GWS rcvd AFTPC that is not allowed
1111	None	GWS rcvd TCA, AFTPC not in routing tbl
1112	None	GWS rcvd TCR, AFTPC not in routing tbl
1113	None	GWS rcvd TCP, AFTPC not in routing tbl

Table E-6. GWS Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1125	None	GWS rcvd CDPA that could not be RDCTd
1126	None	GWS rcvd CGPA that could not be RDCTd
1127	None	GWS rcvd AFTPC that could not be RDCTd
1128	None	GWS rcvd TT that could not be RDCTd
1161	None	GWS rcvd nonSNM msg in DESTFLD screening
1162	None	GWS rcvd nonSCCP msg in CGPA/CDPA screen
1163	None	GWS rcvd invalid GTI in TT screening
1215	None	GWS rcvd CDPA that could not be CNCFd
1216	None	GWS rcvd CGPA that could not be CNCFd
1217	None	GWS rcvd AFTPC that could not be CNCFd
1218	None	GWS rcvd TT that could not be CNCFd
1258	None	Map Screening cannot Forward MSU
1259	None	Map Screening cannot Duplicate MSU
1301	None	SECMTPMATE - rcvd mate PC on non C-link
1302	None	SECMTPSID - rcvd MSU with OPC = SID
1303	None	SECMTPSNM - no rte to OPC/AFTPC
1304	None	SECSCCPSCMG - no rte to AFTPC

Table E-7. Clock Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0113	None	Clock alarm(s) cleared
0128	Critical	All clocks have failed
0160	Minor	1116-S clock failed
0161	Minor	1116-P clock failed
0162	Major	1116-P, 1116-S clocks failed
0163	Minor	1114-S clock failed
0164	Major	1114-S, 1116-S clocks failed
0165	Minor	1114-S, 1116-P clocks failed
0166	Major	1114-S, 1116-P, 1116-S clocks failed
0167	Minor	1114-P clock failed
0168	Minor	1114-P, 1116-S clocks failed
0169	Major	1114-P, 1116-P clocks failed
0170	Major	1114-P, 1116-P, 1116-S clocks failed

Unsolicited Output Message Groups

Table E-7. Clock Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0171	Major	1114-P, 1114-S clocks failed
0172	Major	1114-P, 1114-S, 1116-S clocks failed
0173	Major	1114-P, 1114-S, 1116-P clocks failed
0183	Minor	1116-SHS clock failed
0184	Minor	1116-PHS clock failed
0185	Major	1116-PHS, 1116-SHS clocks failed
0186	Minor	1114-SHS clock failed
0187	Major	1114-SHS, 1116-SHS clocks failed
0188	Minor	1114-SHS, 1116-PHS clocks failed
0189	Major	1114-SHS, 1116-PHS, 1116-SHS clks failed
0190	Minor	1114-PHS clock failed
0191	Minor	1114-PHS, 1116-SHS clocks failed
0192	Major	1114-PHS, 1116-PHS clocks failed
0193	Major	1114-PHS, 1116-PHS, 1116-SHS clks failed
0194	Major	1114-PHS, 1114-SHS clocks failed
0195	Major	1114-PHS, 1114-SHS, 1116-SHS clks failed
0196	Major	1114-PHS, 1114-SHS, 1116-PHS clks failed
0197	Critical	All High Speed Clocks have failed
0198	None	High Speed Clock Alarm(s) Cleared
0403	Major	1114 E1/T1 clock requires TDM-GTI
0404	Major	1116 E1/T1 clock requires TDM-GTI
0405	Major	1114, 1116 E1/T1 clock requires TDM-GTI
0406	Major	1114 Clock selection mismatch
0407	Major	1116 Clock selection mismatch
0408	Major	1114, 1116 Clock selection mismatch
0409	None	Clock configuration corrected
0500	None	Alarm being cleared for this device
1185	None	GTI input clock anomalies detected

Table E-8. Measurements Maintenance Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0179	Minor	NDC Q.3 association is Unavailable

Table E-8. Measurements Maintenance Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0180	None	NDC Q.3 association is Available
0181	Critical	NDC system is Unavailable
0182	None	NDC system is Available
0500	None	Alarm being cleared for this device
0516	Minor	Degraded Mode - 1 card failed
0517	Major	Degraded Mode - multiple cards failed
0518	Critical	Measurements subsystem unavailable
0519	None	Measurements subsystem available
1022	None	System Meas limit exceeded for LSONISMT
1026	None	System Meas. limit exceeded for LSORIGNI
1027	None	System Meas. limit exceeded for LSDESTNI
1028	None	System Meas. limit exceeded for ORIGNET
1061	None	Meas sync not allowed from old version
1080	None	disk measurement status unreadable
1199	None	LNP DTH Measurements Discarded for DPC
1234	None	LNP Day Meas. Discarded for NPANXX
1251	None	Measurements data copy failure
1252	None	Report generation failure
1253	None	Report transfer failure FTP Server
1254	None	Scheduled transer failure
1310	None	System Meas. Limit exceeded for LRN
1311	None	System Meas. Limit exceeded for NPANXX

Table E-9. LNP Database Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0427	Minor	LNP database is corrupted
0428	Minor	Backup LNP database is corrupted
0429	Minor	LNP database is inconsistent
0430	Minor	Backup LNP database is inconsistent
0431	None	LNP database has been corrected
0432	None	Backup LNP database has been corrected
0500	None	Alarm being cleared for this device

Unsolicited Output Message Groups

Table E-9. LNP Database Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
1074	None	SCCP rcvd inv SCMG - invalid SOR
1167	None	LNP database audit is disabled
1168	None	Audit of LNP database completed
1495	None	Awaiting LSMS Bulk Download
1496	None	LSMS Bulk Download in progress
1497	None	LSMS Bulk Download complete
1498	None	LSMS Bulk Download cancelled at LSMS

Table E-10. Security Administration Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0174	Minor	%full threshold reached - upload required
0175	Minor	LOGBUFROVFL-SECULOG -upload required
0176	Minor	Stdby security log -- upload required
0177	None	Security log exception cleared
0178	None	Security log failed
0199	None	OA&M IP Security feature disabled
0500	None	Alarm being cleared for this device
1493	None	SSH Host Keys Regenerated
1494	None	SSH Host Keys Loaded

Table E-11. Program Update Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
1083	None	REPT COND: system alive

Table E-12. UIM Redirect Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
1043	None	SCCP did not route - bad translation
The UIM Redirect output message group is used only if the UIMRD field in rtrv-stpopts is set to yes. Otherwise, this message is output in the System Maintenance output group (see Table E-1).		

Table E-13. Database Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
1114	None	Database BACKUP started
1115	None	Database RESTORE started
1116	None	Database action ended - OK
1117	None	Database action ended - FAIL
1257	None	DB restore has cleared and Disabled PDS

Table E-14. MPS Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0041	Critical	LNP DB Maintenance required
0042	None	LSMS bulk load complete
0250	None	MPS available
0261	Critical	MPS unavailable
0355	None	LSMS is available
0356	Critical	LSMS unavailable
0357	None	All OAP terminals are removed
0358	Major	LSMS connection unavailable
0359	None	LSMS connection available
0362	Major	LSMS is at min service limit
0370	Critical	Critical Platform Failure(s)
0371	Critical	Critical Application Failure(s)
0372	Major	Major Platform Failure(s)
0373	Major	Major Application Failure(s)
0374	Minor	Minor Platform Failure(s)
0375	Minor	Minor Application Failure(s)
0500	None	Alarm being cleared for this device

Table E-15. Monitor Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0051	Major	TSC sync is in simplex mode
0052	None	TSC sync feature is available
0088	Major	Clocks A and B TSCs are out of sync

Unsolicited Output Message Groups

Table E-15. Monitor Unsolicited Output Message Group (Continued)

UAM/UIM Number	Alarm Level	Message Text
0089	None	Clocks A and B TSCs are resynchronized
0468	Critical	All STC Networks Unavailable
0469	Critical	All STC Cards Unavailable
0470	None	EROUTE is Removed
0471	None	EROUTE System is Available
0472	Minor	EROUTE System Threshold Exceeded
0473	Major	EROUTE System Capacity Exceeded
0474	None	EROUTE capacity normal card(s) abnormal
0475	Minor	NTP Time Unavailable
0476	None	NTP Time Available
0477	Minor	Congestion: Copy Function De-activated
0478	None	Copy Function Activated
0479	None	Link not Monitored
0480	Minor	Timestamp Invalid
0481	None	Timestamp Valid
0482	Major	Card(s) have been denied EROUTE service
0500	None	Alarm being cleared for this device
0531	Minor	Insufficient HW Copy Function Inhibited

Table E-16. SLAN Maintenance Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0150	None	STPLAN is available
0151	None	STPLAN capacity normal, card(s) abnormal
0152	Major	LIM(s) have been denied STPLAN service
0153	Critical	STPLAN not available
0154	None	STPLAN is removed
0155	Minor	STPLAN connection unavailable
0156	None	STPLAN connection available
0500	None	Alarm being cleared for this device
1132	None	STPLAN DLK ping test completed

Table E-17. SEAS Maintenance Unsolicited Output Message Group

UAM/UIM Number	Alarm Level	Message Text
0341	Major	OAP unavailable
0342	Major	SEAS UAL unavailable
0343	Major	SEAS X.25 Link unavailable
0344	Minor	SEAS PVC unavailable
0345	Major	All SEAS UAL sessions unavailable
0346	Minor	SEAS UAL session unavailable
0347	None	SEAS X.25 Link is available
0348	Major	SEAS is at min service limit
0349	Critical	SEAS unavailable
0350	Critical	OAP terminals inhibited
0351	None	SEAS is available
0352	None	SEAS is removed
0353	None	OAP is available
0354	Major	One OAP terminal unavailable
0360	Major	EMS Agent unavailable
0361	None	EMS Agent available
0363	Minor	OAP filesystem full
0364	Minor	Config. data checksum mismatch
0365	None	Config. data checksum alarm cleared
0500	None	Alarm being cleared for this device
1099	None	Text string that was received from the OAP

F

Auto-Inhibit HW Verification Codes

Introduction..... F-2

Introduction

This appendix provides a list of the auto-inhibit hardware verification codes used in the card device format. Table F-1 contains a list of the hardware verification codes that appear in certain UAMs, and shows the card or application that it applies to, a description of the code, and the UAM code with which it is associated.

Table F-1. Hardware Verification Codes

Verification Code	Card or Application	Description	Associated UAM Code
002	VSCCP	VSCCP card equipped w/non-DSM MPS feat on (see Note)	0099
003	VSCCP	VSCCP card equipped w/non-DSM LNP & VGTT feat on (see Note 1)	0099
004	VSCCP	VSCCP card equipped w/non-DSM XGTT1MIL feat on (see Note 1)	0099
005	VSCCP	VSCCP card equipped w/non-DSM when EGMS enabled	0099
025	SCCP	SCCP card equipped w/ASM when EGTT on	0441
050	VSCCP	VSCCP card equipped w/no daughterboards	0099
051	VSCCP	VSCCP card equipped w/ < 4GB when 48MIL on	0422
052	VSCCP	VSCCP card equipped w/ < 3GB when 36MIL on	0422
053	VSCCP	VSCCP card equipped w/ < 2GB when 300+ NPA & 150+LRN feature ON	0422
054	SCCP EBDA	SCCP or EBDA card w/ < 2GB when LNP24MIL on	0422
055	SCCP EBDA	SCCP or EBDA card DB memory insufficient for LNP 4 MIL (Requires a minimum of 512 MB)	0422
056	SCCP EBDA	SCCP or EBDA card DB memory insufficient for LNP 6 MIL (Requires a minimum of 768 MB)	0422
057	SCCP EBDA	SCCP or EBDA card DB memory insufficient for LNP 8-12 MIL (Requires a minimum of 1024 MB)	0422
058	SCCP	SCCP card equipped w/ < 256K or > MAX of extended memory	0422
059	VSCCP	MPS database has been detected to exceed capacity of DSM extended memory (only for GPORT, GFLEX, INP, and EIR features). UAMs 281, 283, and 285 used for LNP, ELAP config.	0422
100	SS7IPGW IPGWI	DCM w/ IP connection on B port only when debug enabled	0276
101	SS7IPGW, IPGWI, IPLIM, IPLIMI	DCM only supports SLK link A and B -OR- EDCM only supports SLK link A-A3 and B-B3 -OR- E5-ENET only supports SLK link A-A11 and B-B11	0276
102	SS7IPGW IPGWI	Non-DCM detected in slot (see Note 1)	0099

Auto-Inhibit HW Verification Codes

Table F-1. Hardware Verification Codes (Continued)

Verification Code	Card or Application	Description	Associated UAM Code
103	SS7IPGW, IPGWI, IPLIM, IPLIMI	DCM does not support >2 associations (IPLIMx) -OR- DCM does not support >4 associations (IPGWx) -OR- EDCM does not support >8 associations (IPLIMx) -OR- EDCM does not support >50 associations (IPGWx) -OR- E5-ENET does not support >24 associations (IPLIMx) -OR- E5-ENET does not support >50 associations (IPGWx)	0276
104	SS7IPGW, IPGWI, IPLIM, IPLIMI	DCM does not support >2 sockets (IPLIMx) -or- DCM does not support >50 sockets (IPGWx) -or- EDCM does not support >8 sockets (IPLIMx) -or- EDCM does not support >50 sockets (IPGWx) -or- E5-ENET does not support >0 sockets (IPLIMx) -or- E5-ENET does not support >0 sockets (IPGWx)	0276
105	SS7IPGW, IPGWI, IPLIM, IPLIMI	DCM does not support >2 (sockets + associations) (IPLIMx) -OR- DCM does not support >50 (sockets + assoc*) (IPGWx) -OR- EDCM does not support >8 (sockets + associations) (IPLIMx) -OR- EDCM does not support >50 (sockets + associations) (IPGWx) Note: *assoc = 8 X associations	0276
106	SS7IPGW, IPGWI, IPLIM, IPLIMI	DCM does not support >64Kb SCTP buffers (IPLIMx) -or- DCM does not support >64Kb SCTP buffers (IPGWx) -or- EDCM does not support >1600Kb SCTP buffers (IPLIMx) -or- EDCM does not support >800Kb SCTP buffers (IPGWx) -or- E5-ENET does not support >3200Kb SCTP buffers (IPLIMx) -or- E5-ENET does not support >3200Kb SCTP buffers (IPGWx)	0276
110	SS7IPGW IPGWI	(SRKQ + DRKQ > 1000) not supported on DCM	0276

Table F-1. Hardware Verification Codes (Continued)

Verification Code	Card or Application	Description	Associated UAM Code
119	LIME1	2 port E1 card provisioned w/ ports > 2 (slk prov on port A1-B3)	0297
120	LIMDS0	2 port LIM card provisioned w/ ports > 2 (slk prov on port A1-B3)	0297
121	LIME1	2 port LIM card not support MIM w/E1 port AMI encoding provisioned.	0297
122	MIM	Card is not a MIM - provisioned as T1 or T1 chan associated with T1	0099
123	MPL	MPL can't run w/ port A or B provisioned for speeds ¹ 56K	0297
124	MIM HC MIM	Card is not a MIM or HC MIM and is provisioned as a T1 card	0099
125	MIM MPL	MIM/MPL card with SLK provisioned on link greater than B3.	0297
126	LIME1	2 Port E1 card with an SLK provisioned on E1 port 2-7	0297
127	MIM	MIM card with an SLK provisioned on E1/T1 port 2-7	0297
128	HC MIM	Fan feature bit must be ON for HC MIM	0043
129	HC-MIM / E5-E1T1	Card does not support CAS framing	297
130	LIME1 MIM	Card is not a LIME1 or MIM and is provisioned as and E1 channel card.	0099
131	HC-MIM / E5-E1T1	Card has channel bridging mode active but is not running supported high capacity gpl	0297
132	MPL	Card is not a LIME1 or MIM and is provisioned as and E1 card.	0099

G

Part Numbers

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Overview

This chapter lists the part numbers of Tekelec equipment, components, cables, and miscellaneous parts described in this manual.

Each table provides the item name, part number, and related notes. Items are listed by their name (as described in this manual) in alphabetical order. Shaded part numbers indicate that the item is obsolete or no longer shipped. Unless the item is indicated as obsolete, the item is still supported in the field.

Tekelec reserves the right to ship compatible part numbers or revisions for new installations and replacements. Always check the latest Hardware Baseline for your release. The latest hardware baseline can be found in the Feature Notice of your release.

RoHS 5/6 - As of July 1, 2006, all products that comprise new installations shipped to European Union member countries will comply with the EU Directive 2002/95/EC "RoHS" (Restriction of Hazardous Substances). The exemption for lead-based solder described in the Annex will be exercised. RoHS 5/6 compliant components will have unique part numbers and are identified as the International part number in this chapter.

NOTE: Throughout the manual, international part numbers have replaced the North American part numbers where applicable.



WEEE - All products shipped to European Union member countries comply with the EU Directive 2002/96/EC, Waste Electronic and Electrical Equipment. All components that are WEEE compliant will be appropriately marked. For more information regarding Tekelec's WEEE program, contact your sales representative.

Cables, Adapters

Table G-1. EAGLE 5 ISS Cables, Connectors, and Power Cords

Name	Part Numbers		Note
	zNorth America	International	
Adapter, 15 PIN to 26 PIN	830-0425-01	---	
Adapter 25 to 15 pin	000-0088-01	---	POWER SUPPLY V.35 PATCH PANEL -48 VDC
Adapter cables	830-0846-01	830-1183-01	backplanes -03 and -04 for master timing and HS clock cable 830-0873-xx
Alarm cable	830-0543-01	---	Holdover Clock
Alarm cable	830-0638-xx	830-1163	Rack alarm
Alarm NETRA Server Cable	830-0900-xx	---	

Part Numbers

Table G-1. EAGLE 5 ISS Cables, Connectors, and Power Cords (Continued)

Name	Part Numbers		Note
	zNorth America	International	
B Clock Cable	830-0404-xx	---	replaced by 830-0398-xx (NA) or 830-1150-xx (I) both are for HMUX
B Clock Cable	830-0398-xx	830-1150-xx	
A and B Frame Clock cable	---	---	see B Clock Cable
BITS clock cable	830-0226-xx	830-1146-xx	Backplanes -03 and -04
BITS clock cable	830-0873-xx	---	Backplane -06
BNC pen end cable	830-0625-xx	830-1161-xx	
BNC to BNC cable assembly	830-0624-xx	830-1160-xx	
Breaker-to-Terminal Strip Power Cable	830-0866-xx	---	
CD-ROM Cable	830-0421-xx	---	
Clock Connection cable	830-0657-xx	830-1164-xx	Fan, alarm, control EOAP to Control shelf
Composite clock cable	---	---	See BITS clock cable
Converter	804-0176-01	---	
Crossover (CAT-5) Cable	830-0723-xx	830-1173-xx	
Crossover Patch Panel Cable	830-0789-xx	830-1178-xx	DCM
DCM, 100-BASE TX Interface	830-0711-xx	---	
Drive Power Cable	830-0224-xx	---	
DS1 Cable	830-0849-xx	830-1184-xx	
E1 cable	830-0622-xx	830-1233-xx	
E1 patch cable	830-0605-02	830-1156-xx	
E1-T1 MIM 22 AWG	830-0932-01	830-1106-xx	
E1/T1 MIM LIM Cable	830-0948-01	830-1197-xx	4 Port 24 AWG
E1/T1 MIM LIM to MPL Adapter	830-0949-01	830-1197-01	
Ethernet cable	830-0788-xx	830-1177-xx	DCM, DSM, EDCM-A, and EDCM
External alarm cable	830-0435-xx	830-1151-xx	
Fan cable	830-0690-01	---	AC power
Fan power/alarm cable	830-0609-01	830-1157-01	incl. with fan assembly
Fifty Position Cable Hard Drive I/O	830-0656-01	---	
Filter Rack Alarm Cable	830-0638-xx	830-1163-xx	

Table G-1. EAGLE 5 ISS Cables, Connectors, and Power Cords (Continued)

Name	Part Numbers		Note
	zNorth America	International	
Force Transition Card	850-0496-01	---	
Hazard Ground Cable	830-0257-xx	---	
High density connector	000-0088-01	---	POWER SUPPLY V.35 PATCH PANEL -48 VDC
High Speed (BITS) Clock Cable	830-0873-xx	830-1189-xx	
High Speed Master Timing Adapter	830-0846-01	830-1183-01	
HMUX Adapter Cable	830-0857-01	830-1185-01	
1/0 Green Ground Cable	690-0108-07	690-0108-R07	
Interface Cable	830-0366-xx	830-1149-xx	
Local Maintenance Center Cable	830-0231-xx	830-1144-xx	
Loop Back Cable Adapter	830-0763-01	830-1176-xx	
MMI Port Cable	830-0708-xx	830-1169-xx	
Modem/Terminal Cable	830-0709-xx	830-1170-xx	
Multi-port LIM Diagnostic Cable	803-0029-0	---	
Multi-port LIM DS0 cable	830-0772-xx	---	26 AWG, inactive
Multi-port LIM DS0 cable	830-0892-xx	830-1194-xx	24 AWG, inactive
Multi-Port Power Cable	830-0814-xx	---	
Network Cable	830-0710-xx	830-1257-xx	
Null Modem Cable	830-0759-xx	---	
Null-Modem for Terminal Cable	830-0859-xx	830-1186-xx	
Output panel frame ground cable	690-0009	---	
Pin Protector Assembly	830-0880-01	---	use with clock cable replacement (66 min for 6 shelves)
Power Cable	830-0315-xx	830-1147-xx	
Power Cable, -48V	830-0651-xx	---	
Power Ring	830-0908-xx	---	AXi
RAID Power Cable	830-0872-xx	---	DC
Remote Maintenance Center Cable	830-0233-xx	830-1146-xx	
RJ45/RJ45 Cable (CAT-5) (Yellow)	830-0888-xx	---	
RJ45/RJ45 Cable (CAT-5) (Blue)	830-0889-xx	830-1192-xx	
RJ45 to 9 Pin Adapter	830-0917-01	---	

Part Numbers

Table G-1. EAGLE 5 ISS Cables, Connectors, and Power Cords (Continued)

Name	Part Numbers		Note
	zNorth America	International	
Row Alarm Cable	830-0232-xx	830-1145-xx	
Router Power Cable	830-0869-xx	830-1188-xx	DC
RS232 Cable	830-0527-xx	830-1152-xx	
Serial I/O Transition Card	850-0514-01	---	
Serial Interface Converter Cable	830-0531-01	---	inactive
Serial Interface/Modem Adapter	830-0531-03	830-1153-03	use with 830-0394-xx
Serial Interface/Modem Adapter	830-0531-04	830-1153-04	use with 830-0535-xx
Serial DB44 to DB9 (X4) cable	830-0972-01	830-1231-01	36-inch T1x00 AS
Serial Interface, Terminal, Printer Adapter	830-0531-02	830-1153-02	use with 830-0394-xx
Straight Through Cable (CAT-5)	830-0724-xx	---	
Straight Through Cable (Patch Panel)	830-0788-xx	830-1177-xx	
Switch-to-Frame Ground Cable	830-0884-01	---	
Terminal/Converter Cable	830-0528-01	---	
Terminal/Printer Cable	830-0535-xx	830-1154-xx	
Tone and Announcement Server Alarm Cable	830-0901-xx	---	
T1 LIM-to-MPL Cable Adapter	830-0895-01	---	
T1 MIM cable	830-0894-xx	---	
Terminal cable adapter	---	---	see Terminal/Printer cable

Components

Table G-2. EAGLE 5 ISS Components

Acronym	Name	Part Numbers		Note
		North America	International	
ACM	Application Communication Module	870-1008-xx	---	
---	Air Management Card	870-1824-01	870-1824-02	single slot, eeded for empty slots when using Fan Tray 890-0001-02
ASM	Application Service Module	870-1011-xx	---	Obsolete as of EAGLE 5 ISS 31.6
---	Breaker Panel Alarm Card	804-1489-01	804-1489-R01	

Table G-2. EAGLE 5 ISS Components (Continued)

Acronym	Name	Part Numbers		Note
		North America	International	
CI	Clock Interface Card (Holdover Clock)	804-0165-01	---	
DCM	Database Communications Module	870-1945-038	---	K6-III, 200 TPS STC card
DCMX	Expandable Database Communications Module	870-1984-01	---	
DSM	Database Service Module	870-1984-07 870-1984-09	870-1984-13 870-1984-15	4GB 1GB
DSM	Database Service Module	870-2371-08	870-2371-13	1GB
E1/T1 MIM	E1-T1 Multichannel Interface Module 02	870-2198-01	870-2198-02	European equivalent of the North American T1
EDCM	Enhanced Database Communications Module	870-2197-01	---	double-slot Pre-IP7 SG 4.0
EDCM	Enhanced Database Communications Module	870-2372-08 870-2372-09	870-2372-13 870-2372-14	single-slot
EDCM-A	Enhanced Database Communications Module A	870-2508-01	870-2508-02	single-slot
EILA	Enhanced Integrated Link Interface Module Applique	870-2049-xx	---	
EOAP	Embedded Operations Support System Applications Processor	890-1050-01 890-1050-03	---	single dual
GPSSM-II	General Purpose Service Module	870-2360-06	870-2360-07	Replaces MCAP as of 30.0
HCMIM	High Capacity Multi-channel Interface Module	870-2671-01	870-2574-02	Replaces IPMX
HIPR	High-Speed IMT Packet Router Module	870-2574-01	870-2574-02	Replaces IPMX
HMUX	High-Speed Multiplexer	870-1965-01	870-1965-03	Replaces IPMX
IPMX	Interprocessor Message Transport Power and Multiplexer	870-1171-01	---	replaced by HMUX
ILE1	Integrated Link Interface Module E1	870-2423-01	---	
ILA	Integrated Link Interface Module Applique	870-1484-xx	---	Use EILA
LIM	Link Interface Module	870-1014-xx	---	
LIM-AINF	Link Interface Module - Application Interface	870-1488-xx	---	Replaced by ILA and EILA
LIM-ATM	Link Interface Module - Asynchronous Transfer Module	870-1293-10	870-1293-13	
LIM-DS0A	Link Interface Module	870-1009-xx 870-1014-xx	---	Replaced by ILA and EILA

Part Numbers

Table G-2. EAGLE 5 ISS Components (Continued)

Acronym	Name	Part Numbers		Note
		North America	International	
LIM- E1	Link Interface Module - E1	870-1379-01	870-1379-02	European equivalent of the North American T1
LIM-OCU	Link Interface Module - Office Channel Units	870-1010-xx 870-1486-xx	---	Replaced by ILA and EILA
LIM-V.35	Link Interface Module - Trunk Interface	870-1012-xx 870-1487-xx	---	Replaced by ILA and EILA
MCA	Matrix Controller Automatic (Holdover Clock)	000-0028-xx	---	
MCAP	Maintenance Administration Subsystem (MAS) Communications Applications Processor	870-1013-xx 870-1307-xx	---	Replaced by GPSM-II as of 30.0
MDAL	Maintenance Disk and Alarm Card	870-0773-08	870-0773-09	
MIS	Maintenance Interface System Card (Holdover Clock)	804-0175-xx	---	
MPL	Multi-Port Link Interface Module	870-2061-xx	870-2061-05 870-2061-05	
MPLT	Multi-Port Link Interface Module with Taxi Component	870-2062-02	---	
MPS	Multi-purpose Server	890-1287-xx 890-1374-xx	--- ---	OEM Open System
TDM-GTI	Terminal Disk Module - Global Timing Interface	870-0774-15	870-0774-18	As of 31.6 (NA) 35.0 (I)
TOCA	Timing Output Composite Automatic (Holdover Clock)	804-0166-xx	---	
TSM	Translation Service Module	870-1289-04 870-1291-xx 870-1292-xx	870-1289-06 --- ---	TSM-1G TSM-3G TSM-4G

Frames, Backplanes, FAPs, and Fans

Table G-3. Frames, Backplanes, FAPs, and Fans

Acronym	Name	Part Numbers		Note
		North America	International	
BP	Breaker Panel	804-1423-01	804-1423-R01	
BP	Breaker Panel	870-1814-01	---	
	Control Shelf Backplane -02	850-0330-02	---	inactive

Table G-3. Frames, Backplanes, FAPs, and Fans (Continued)

Acronym	Name	Part Numbers		Note
		North America	International	
	Control Shelf Backplane -03	850-0330-03	---	inactive
	Control Shelf Backplane -04	850-0330-04	---	
	Control Shelf Backplane -05	850-0330-05	---	
	Control Shelf Backplane -06	850-0330-06	850-0330-07	shelves 6 and 7 no longer supported
	E1 Backplane	850-0459-01	850-0459-02	
	Extension Shelf Backplane	850-0356-01	---	inactive
	Extension Shelf Backplane	850-0356-02	---	inactive
	Extension Shelf Backplane	850-0356-03	---	inactive
	Extension Shelf Backplane	850-0356-04	---	
	Extension Shelf Backplane	850-0356-05	850-0356-06	not used
EOAP	Embedded Operations Support System Applications Processor	890-1050-01 890-1050-03	---	single dual
	Fan Assembly	890-0001-02	890-0001-04	All systems with HCMIMs EAGLE 33.0
	Fan Assembly	890-1038-01	890-1038-03 890-1038-04	Standard frame Heavy Duty frame
	Filter, fan tray	551-0032-01	---	
	Fan filter	551-0022-01	---	
FAP	Fuse and Alarm Panel	860-0434-01	860-0434-03 860-0434-04	Heavy Duty Frame
FAP	Fuse and Alarm Panel	870-1606-02 Rev C	---	Standard Frame 60 Amp feeds
FAP	Fuse and Alarm Panel	870-1606-02 Rev B	---	Standard 40 Amp feeds
FAP	Fuse and Alarm Panel	870-2320-028 Rev J	870-2320-04	Heavy Duty Frame 60 Amp feeds
FAP	Fuse and Alarm Panel	870-2320-01 Rev A - I	870-2320-03	Heavy Duty Frame 40 Amp feeds
FAP	Fuse and Alarm Panel	870-0243-08 Rev C	---	Control/ Extension Frame
FAP	Fuse and Alarm Panel	870-0243-09 Rev C	---	Misc Frame
	FAP Jumper Board	870-1641-01	---	
	FAP Jumper Board	870-1641-02	---	

Part Numbers

Table G-3. Frames, Backplanes, FAPs, and Fans (Continued)

Acronym	Name	Part Numbers		Note
		North America	International	
	Heavy Duty Frame	860-0434-01	---	
	MPS Server	870-2640-01	870-2640-03	T1000 AS

Labels

Table G-4. Labels

Name	Part Numbers
Lable, Control frame	658-0486-01
Lable, Extension frame 00	658-0486-02
Lable, Extension frame 01	658-0486-03
Lable, Extension frame 02	658-0486-04
Lable, Extension frame 03	658-0486-05
Lable, Extension frame 04	658-0486-06
Lable, Miscellaneous frame 00	658-0374-01
Lable, Miscellaneous frame 01	658-0374-02
Lable, OAP frame	658-0486-08
Lable, Heavy Duty Frame	658-0374-01
Lable, CF-00, Shelf 1	658-0490-01
Lable, CF-00, Shelf 2	658-0490-02
Lable, CF-00, Shelf 3	658-0490-03
Lable, EF-00, Shelf 1	658-0490-04
Lable, EF-00, Shelf 2	658-0490-05
Lable, EF-00, Shelf 3	658-0490-06
Lable, EF-01, Shelf 1	658-0490-07
Lable, EF-01, Shelf 2	658-0490-08
Lable, EF-01, Shelf 3	658-0490-09
Lable, EF-02, Shelf 1	658-0490-10
Lable, EF-02, Shelf 2	658-0490-11
Lable, EF-02, Shelf 3	658-0490-12
Lable, EF-03, Shelf 1	658-0490-13
Lable, EF-03, Shelf 2	658-0490-14
Lable, EF-03, Shelf 3	658-0490-15
Lable, EF-04, Shelf 1	658-0490-16

Table G-4. Labels (Continued)

Name	Part Numbers
Lable, EOAP	658-0499-05
Lable, Field Tool Identification	658-0941-01
Lable, Field Tool Identification wrap	658-0941-02

Miscellaneous Parts

Table G-5. Miscellaneous Part Numbers

Name	Part Numbers		Note
	North America	International	
Drives			
Dual CD-RW\DVD-ROM	870-2746-01	870-2746-02	T1x00 AS
Disk Drive, 120GB	804-1804-01	804-1804-R01	ULTRA ATA/100/133_7200 RPM
Panels			
Alarm side pane	870-0259-02	---	
Alarm indicator lamps	525-0036-02)	---	
Blank side panel	840-0017-02	---	
Gray tinted plastic rear covers	654-0075-01	654-0075-R01	
Brackets, unit separation	652-0609-01	652-0609-02	
Bracket	652-0954-01	652-0954-02	Fan
Kits			
Cable Rack Mounting Kit	804-1571-01	---	Heay duty frame
Cable Rack Mounting Kit	804-0219-01 804-0219-02	804-0219-R01 804-0219-R02	raised floor
external tooth washers	606-0062-01	---	fan bracket
Diode Board A	870-1608-01	---	
Diode Board A	870-1608-03	---	
Diode Board B	870-1608-02	---	
Diode Board B	870-1608-04	---	
Diode Upgrade kit	870-1831-01	---	For 870-1606-02
Diode Upgrade kit	870-1831-02	---	For 870-2320-01
E1 Interface Kit	890-1037-01	890-1037-06	

Part Numbers

Table G-5. Miscellaneous Part Numbers (Continued)

Name	Part Numbers		Note
	North America	International	
Mounting hardware kit	840-0092-01	840-0092-03	For heavy duty frame. South America/India only
Brackets, Screws, and other small items			
Brackets, unit separation	652-0609-01	652-0609-02	
Bracket	652-0954-01	652-0954-02	Fan
Bracket, fan tray	652-0012-01	652-0012-02	Fan tray
Bracket, side, fan tray	652-0015-01	652-0015-02	Fan tray
Heat-shrink	804-0229-01	---	
Heat-shrink	804-0228-01	---	
logic ground cable lugs; ee terminal lugs	---	---	
Lugs, # 6 two-hole	502-0085-01	502-0085-R01	FAP connector
#6 AWG	690-0131-01	690-0131-R01	
1/0 pink lug	804-0977-01	804-0977-R01	
Pin Protector Assembly	830-0880-01		
Screws (12)	601-0010-01	---	
Screws	600-0193-01	---	12x24 .500 cs zinc fan bracket
Terminal lug	804-0817-02	804-0817-R02	
Terminating resistor	104-0032-01	---	E1 backplane

Power Cords for Peripherals

Table G-6. Power Cords for Peripherals

Country	Part Number		
USA	Cord provided	Latvia	804-1185-R01
Argentina	804-1185-R02	Liechtenstein	804-1185-R11
Australia	804-1185-R02	Lithuania	804-1185-R01
Austria	804-1185-R01	Luxembourg	804-1185-R01
Belgium	804-1185-R01	Malaysia	804-1185-R03
Brazil	804-1185-R01	Malta	804-1185-R03
Bulgaria	804-1185-R01	Mexico	Cord provided
Canada	Cord provided	Monaco	804-1185-R01
Chile	804-1185-R01	Netherlands	804-1185-R01

Table G-6. Power Cords for Peripherals (Continued)

Country	Part Number		
China	804-1185-R09	New Zealand	804-1185-R02
Columbia	Cord provided	Norway	804-1185-R01
Cyprus	804-1185-R03	Peru	804-1185-R01
Czech Republic	804-1185-R01	Philippines	Cord provided
Denmark	804-1185-R04	Poland	804-1185-R01
Egypt	804-1185-R01	Portugal	804-1185-R01
Estonia	804-1185-R01	Romania	804-1185-R01
Finland	804-1185-R01	Russia	804-1185-R01
France	804-1185-R07	Saudi Arabia	Cord provided
Germany	804-1185-R01	Singapore	804-1185-R03
Greece	804-1185-R01	Slovakia	804-1185-R01
Hong Kong	804-1185-R03	South Africa	804-1185-R06
Hungary	804-1185-R01	South Korea	804-1185-R01
Iceland	804-1185-R01	Spain	804-1185-R01
India	804-1185-R06	Sweden	804-1185-R01
Ireland	804-1185-R03	Switzerland	804-1185-R11
Israel	804-1185-R12	Taiwan	Cord provided
Italy	804-1185-R07	Turkey	804-1185-R01
Ivory Coast	804-1185-R01	United Kingdom	804-1185-R03
Japan	804-1185-R10	United Arab	804-1185-R03

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