MINICOMPUTER MAINTENANCE AND OPERATIONS CENTER

OPERATIONAL TROUBLE REPORT PROCEDURES FOR MINICOMPUTER SYSTEMS

1. GENERAL

1.01 This section describes the procedures for use of the Operational Trouble Report (OTR), Form E-6809 for minicomputer systems by the Minicomputer Maintenance and Operations Center (MMOC). The OTR form provides an expeditious procedure for reporting design problems in Operations Systems (OSs). This procedure is available to the Bell Operating Companies (BOCs) for use and is in addition to the standard Bell Engineering Complaint procedure explained in Section 010-700-010.

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 The title for each figure includes a number(s) in parentheses which identifies the paragraph(s) in which the figure is referenced.

1.04 This section contains guidelines to be followed when OTRs are recorded and referred on minicomputer-based OSs.

1.05 Other documentation is available which provides procedures for reporting on minicomputer activities such as routine maintenance and hardware failures experienced on OSs with embedded minicomputers. However, troubles may arise which suggest that software and/or hardware design problems exist. This section addresses those situations.

1.06 Table A provides a representative list of OSs covered by the OTR. Some systems, such as Loop Maintenance Operations System (LMOS) have special AT&T Technologies support centers with special reporting procedures due to their unique configurations. They are not covered by procedures documented in this section.

2. WHEN TO PREPARE AN OTR

2.01 An OTR for an OS should be prepared when any unusual action is observed which is contrary to or not covered in the OS operating, maintenance, and related system administrative documentation.

2.02 An OTR should be prepared on hardware as well as software abnormalities or those of uncertain or mixed cause. It should cover all aspects of the system, whether operational, maintenance, or administrative problems.

2.03 An OTR should not be prepared for situations not related to the present OS design (ie, suggestions for new system capabilities, administrative routines, human safety problems, etc). Such items should be submitted in an Engineering Complaint, by letter to the Central Service Organization (CSO), or through other channels. The OTR does not supersede the Bell Engineering Complaint for items on which the BOC requests direct corrective action and a final report.

3. HOW TO PREPARE AN OTR

3.01 Figure 1 provides an example of Form E-6809, Operational Trouble Report; Figure 2 provides a completed example.

3.02 Instructions for completing line 1.1, Form E-6809, are as follows:

(a) *Telco OTR No.:* Enter the BOC report number assigned by the Minicomputer Support Group (MSG). The OTR number is formatted as: **OCX-YZZZ**. The following explains this format:

   OC = 2-alpha character BOC designation

   X = Last digit of the year of the report

   Y = 1-alpha character that identifies the area of the report

   ZZ = Digit number applied in sequence for each OTR during X year.

For example: **DC3-A123** represents the one hundred twenty-third OTR issued by the "DC Company" in 1983 for Area A.

(b) *Originated By:* Enter the name of the OTR author.

(c) *Telephone No.:* Enter the telephone number of the OTR author.

(d) *Date:* Enter the date the OTR is issued.

3.03 Instructions for completing line 1.2, Form E-6809, are as follows:

(a) *Telco Name:* Enter the name of the BOC.

(b) *Office Name:* Enter the name of the office or building that contains the subject system.

(c) *Street Address (City, State, Zip):* Enter the complete address of the named office.

3.04 Instructions for completing line 1.3, Form E-6809, are as follows:

(a) *System Name:* Enter the name of the subject system (eg, Engineering and Administrative Data Acquisition System (EADAS), File Access Subsystem (FAS), etc).

(b) *T (Office Base & CTLGRP No.):* Enter the office base drawing and control group numbers which appear on the generic program wiring list drawing for the subject system (eg, T-1234-KO-2660).

(c) *PG/ISS (PG and Issue No.):* Enter the program generic (PG) and issue number of the generic program or of the generic program configuration currently installed in the subject system.

3.05 Instructions for completing line 2.1, Form E-6809, are as follows:

(a) *Trouble Source (hardware), (Program), (Documentation), (Other):* Circle or enter the source of the trouble. If the source is not known, enter the notation "unknown."

(b) *Trouble Symptom—Reference Material Attached (No) (Yes):* Any document that pertains to the reported trouble should be attached to the OTR (eg, system TTY printouts). For some systems, special OTR information may be requested. The originator should refer to the appropriate computer system CSO Practice or program application (PA) document for the system in question for special instructions before filling out the OTR.

(c) *Narrative:* Enter a brief description of the system trouble.

3.06 Instructions for completing line 2.3, Form E-6809, are as follows:

(a) *Trouble Description—Narrative:* Enter sufficient details to permit a complete investigation of the troubles. If there is not sufficient space, continue on blank sheets. For some systems, special OTR information may be requested. The originator should refer to the appropriate computer system CSO Practice or PA document for the system in question for special instructions before filling out the OTR.

3.07 Instructions for completing line 2.4, Form E-6809, are as follows:

(a) *Trouble Resolution—Narrative:* Enter any interim resolution devised for the trouble.

Note: The NAC is responsible for reviewing the traffic orders to ensure adequate provision of common equipment data leads for measurement requirements.

- Assigning common equipment and trunk relay rack equipment to the Traffic Usage Recorder (TUR) as required.

- Assigning TUR cross-connections as required.

- Assigning the Engineering and Administrative Data Acquisition System (EADAS) Traffic Data Converter (ETDC) or equivalent input locations as required.

- Assigning central office equipment and completing marker route relay appearances for peg count type data to data collection apparatus (DCA) input locations and assign all traffic register distributing frame cross-connects as required.

- Performing a physical verification test (peg count and usage) on each register circuit and data collection device (DCD) to ensure the continuity of the register circuit from source of ground through ETDC input location.

- Performing acceptance testing of the ETDC or equivalent.

- Preparing and maintaining the official office traffic DCD assignment records. Providing user groups with current copies of these documents as required.

- Preparing and maintaining the official office ETDC input assignment cards, or equivalent.

- Performing a continuity test of select traffic register circuits or traffic DCDs as directed by user initiated trouble tickets or system identified measurement device abnormalities. Performing corrective action as required.

B. Traffic Register Administration—Stored Program Control System

3.06 The NAC is responsible for the administration of the measurement device for ESS* switch switching entities. Included are the following functions:

- Reviewing all traffic orders which impact traffic registers for the adequate provision of registers, including the parameters and head table capacities.

- Assigning all traffic registers for central office equipment and software, trunk groups, features, and special studies (if required).

- Providing transmittal with the ESS switch form (eg, 1400 form for 1/1A ESS switch) to the Recent Change Memory Administration (RCMA) work group for recent change inputs.

- Verifying all traffic register assignments using the appropriate traffic TTY input message.

- Preparing and maintaining the official office traffic register assignment records (eg, 1400 form for 1/1A ESS switch). Providing current copy to the NDCC.

- Verifying specific traffic assignments as directed by user initiated trouble tickets or system identified measurement device abnormalities. Performing corrective action as required.

C. Schedule Base Administration

Electromechanical and Electronic Switching Systems

3.07 The responsibilities and functions associated with scheduling the collection and processing of traffic data are divided between the NAC and the NDCC as follows:

- The NAC is responsible for receiving data collection requests from the Network Switching Engineering Center (NSEC), Switching Control Center (SCC), and internal requests.

* Trademark of AT&T Technologies.

The NAC reviews the request and determines its ability to satisfy the requests while coordinating with the NDCC.

- The NDCC is responsible for receiving data collection requests from the NAC and other users. The NDCC reviews the request and determines its ability to deliver the required data.

- The NAC is responsible for developing the data collection requirements to satisfy the data needs of the NAC and the user groups (NSEC, SCC) that the NAC represents and forwarding those requirements to the NDCC.

- The NAC is responsible for preparing and entering the traffic map which collects the data in the event EADAS is down, and controls W schedule collection.

- The NAC is responsible for implementing the data collection schedule for the Network Operations Report Generator (NORGEN) and Stored Program Control System (SPCS) Central Office Equipment Reports (COER).

- The NAC provides the data collection requirements for all other downstream systems to the NDCC. The NDCC is responsible for implementing data collection and processing schedules for Common Update/Equipment (CU/EQ) and may be contracted to input schedules required for other user systems, eg, No. 5 Crossbar Central Office Equipment Reports (No. 5XB COER).

- The NDCC is responsible for conducting schedule base verifications in response to user initiated schedule base trouble tickets or system identified schedule base errors except for NORGEN, the No. 5XB COER, and SPCS COER which are the responsibility of the NAC.

3.08 The NAC is responsible for collecting additional ESS switch traffic-like data that is not processed by TNDS. This responsibility includes collecting PM01 messages, TOC01 and TOC02 messages, LEN01 messages, TC15 and DA15 data.

D. Record Base Administration

Electromechanical and Electronic Switching Systems

3.09 The responsibilities associated with establishing and maintaining the record bases (office description of each switching entity) of the various downstream data processing systems are partitioned between the NAC and the NDCC as follows:

- The NAC is responsible for providing updated information to the NDCC for certain record base elements such as main station counts, loading divisions, user defined thresholds, etc. The NDCC is responsible for entering these record base updates. Refer to Table A for association of responsibilities.

- The NDCC is responsible for establishing and maintaining the Traffic Data Administration System (TDAS) CU/EQ. It is also responsible for the NORGEN DCD and special study record base. The remaining NORGEN and SPCS COER record bases are the responsibility of the NAC.

3.10 The work group responsible for areas of record and schedule base administration is identified in Table A.

E. Report Generation and Distribution

3.11 The NDCC is responsible for the generation and distribution of all TNDS reports. The NORGEN schedule, demand, and exception reports are received directly in the NAC. Generation and distribution of SPCS COER reports are also a NAC responsibility.

F. Data Collection — Routine/Manual

3.12 In a nonmechanized data administration environment, the NAC is responsible for collecting, processing, posting, validating, and reporting all data required by NSA, the traffic engineer (TE), and other concerned work groups. (*Note:* The TE is part of the NSEC.) The NDCC retains responsibilities for coordinating all studies and is also responsible for measurement device administration as previously described.

**OPERATIONAL TROUBLE REPORT
FOR OPERATIONS SUPPORT SYSTEMS**

E 6809

1. GENERAL

1.1 ___DC3-A123_____   ___J. J. Doe_____   ___612-868-3657_____   ___09-22-83___

   Telco OTR No.   Originated By   Telephone No.   Date

1.2 ___NWB_____   ___Main South_____   _26 South Main St._ _Minneapolis, Minn_ _55402_

   Telco Name   Office Name   Street Address   City   State   Zip

1.3 ___TASC_____   T._1234- KO-2660_____   PG._00000_, ISS._1_

   System Name   Office Base & CTLGRP No.   PG And Issue No.

2. TROUBLE SUMMARY

2.1 Trouble Source: (Hardware),(Program),(Documentation),(Other — _____

_____).

2.2 Trouble Symptom: Reference Material Attached (No) (Yes) _____

   Narrative — _"Event Time" Display Invalid_____

_____

_____

_____

2.3 Trouble Description: Narrative — _The Event Time display at each console changes with each_
new call event but appears to specify random information. Examination of PR-00000,
Iss. 1 (Time Compute) shows that time is computed for each call event and stored in
the 'TTY PKT' buffer instead of 'CRTDIS' buffer. Therefore, the 'Event Time' display
is really whatever was last in the 'CRTDIS' buffer.

2.4 Trouble Resolution: Narrative — _Electric clocks were bought for every position. These_
clocks are set at the start of each shift to agree with TASC System time printed by
hourly error printout.

2.5 Trouble Impact: Narrative — _It takes two to four hours at the end of each shift to_
associate computer logs with operator logs because of wide time differences.

2.6 System Outage Data: Date_04-01-83____, Time_10-31____(AM)(PM).

   Duration____307____, System State __Step 6 of CN 1245 CR_____

2.7 Related OTR's: ____None_____

For PECC Use Only

Disposition _____

_____   Eng. _____

_____   Tel. _____

_____   Dept. _____

_____   Date _____

1 — P.E.C.C.
2 — W.E.-Region
3 — TELCO.
4 — TELCO.

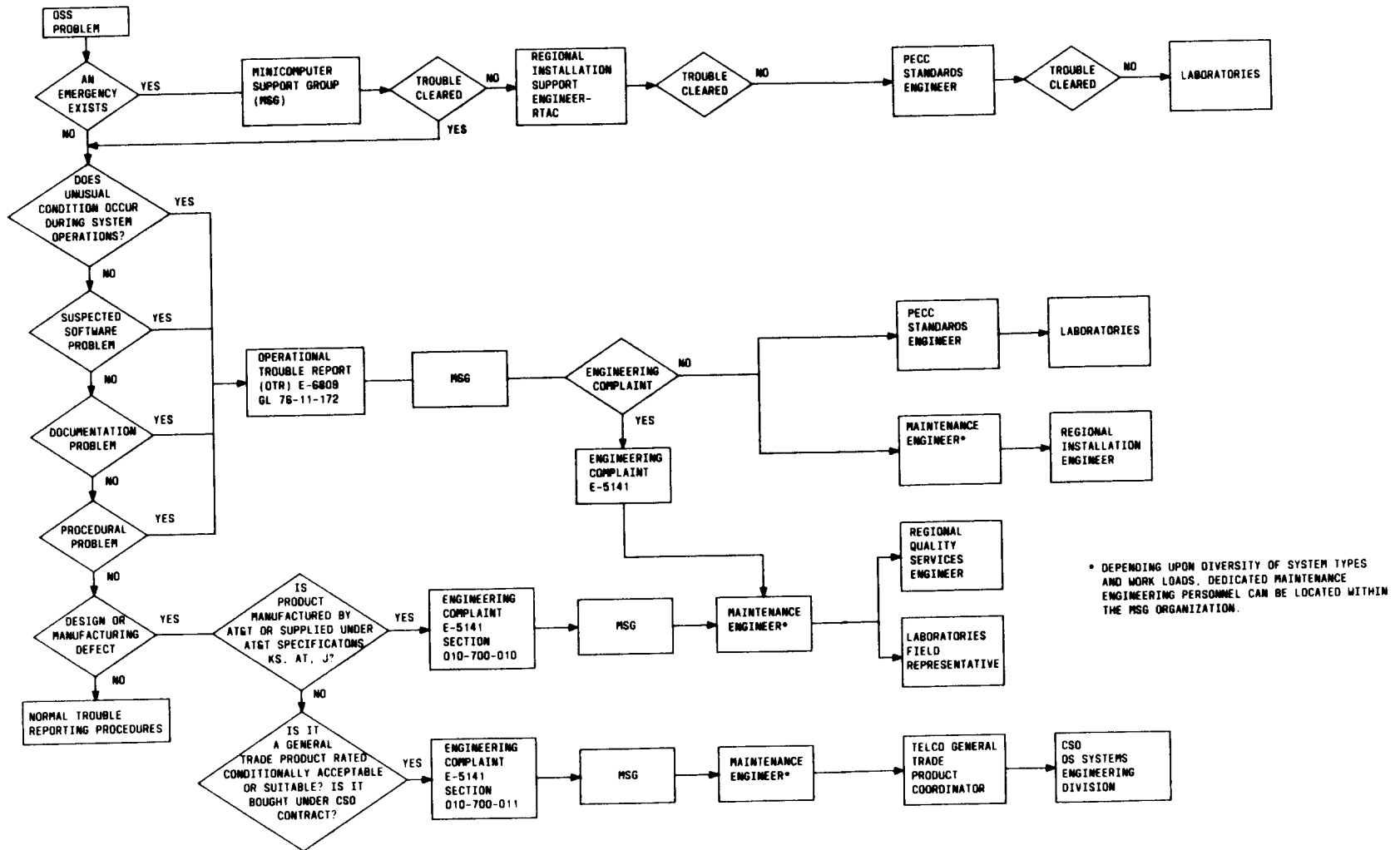**Fig. 2—Completed Operational Trouble Report (3.01)**

Fig. 3—Routing Operational Trouble Reports (4.01)

* DEPENDING UPON DIVERSITY OF SYSTEM TYPES AND WORK LOADS, DEDICATED MAINTENANCE ENGINEERING PERSONNEL CAN BE LOCATED WITHIN THE MSG ORGANIZATION.

TABLE A

LIST OF SYSTEMS
COVERED BY OTR

STANDARD ACRONYM	STANDARD ACRONYM
ADTS	HOBIS #1
AFADS	1A CONSOLES
AIS-FAS	CTMS
#1 AMARC	DUE
#1A AMARC	EADAS
ATA	EADAS1A
ATRS	EADAS/NM
CAMA-C	LAMA-C
CAROT 1	NSCS
CAROT 2	PBC
CC1A	PC-1A
CMS-1A	RMAP
CMS-1B	#2 SCCS
CMS-2A	SCOTS
COMAS I	SES #1A
COMAS III	TASC
COSMOS	TCAS
CPMS	TDRS
CSACS	TFMS
CMS-3A	TOMUS
DBAS	12A CIS
DMS	PWUNIX