

OPERATOR TROUBLE REPORTING

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1.0 GENERAL

1.01 This Section describes the procedures, and classes and types of troubles which are reported to the DDD Bureau by switchboard operators and service observers encountering ineffective call attempts.

1.02 Operator-encountered call attempt failures remain the largest single source of reliable input data for the DDD Bureau. Each Bureau should establish "bench marks" for the quantity of operator reports expected from all reporting units. Any unexplained changes in report levels are referred to the Traffic member of the DDD Task Force for investigation. Attachment #1 is a suggested control log for operator reports.

1.03 As the number of TSPS positions in the System grow, the number of operator-encountered call attempt failures reported will increase. This increase in reports is due to the ease and speed of operator reporting from TSPS, as compared to other types of switchboards. DDD Bureau treatment of these reports will require major changes from the procedures existing in most Bureaus.

1.04 The TSPS is a SPC (stored program control) machine similar to ESS. It is capable of recalling and reporting all pertinent parts of a call failure when requested, and will transmit this information by private line data-phone to the DDD Bureau.

1.05 The Bureau receives the data on a 35 type TTY. Hard copy is produced for immediate "eyeballing", and an 8-level paper tape is punched.

1.06 The TSPS tape can be transmitted to a computer for sorting and assembling of reports into various categories. The computer then outputs summaries to designated Bureaus (based on NPA, TC, and NNX administrative responsibilities) to perform originating, intermediate and terminating analysis of the network.

1.07 Since the TSPS is not arranged with features which will allow hold and trace activity, Bureaus should strive to improve their techniques of pattern analysis immediately.

1.08 When DDD Steering Committees review data handling procedures in their Bureaus, consideration must be given to the TSPS program in their Bureaus prime area.

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1.09 As the growth of TSPS continues, a centralized computer will permit the rapid exchange of call failure information between Bureaus. A centralized processor to which all TSPS installations are connected will provide a central merging and redistribution facility for TSPS reports.

1.10 The same facility can simultaneously serve as a collection and redistribution point for all *non-TSPS* trouble reports, *providing* they utilize *standard class of trouble* report and *standard type of trouble* report codes as outlined in Section 010-401-014.

2.0 CLASSIFICATION OF TROUBLE REPORTS

2.01 BSP 660-621-000 classifies the trouble reports received by the DDD Service Bureau. Switchboard locations having mechanized reporting, and all TSPS locations will use those codes in making their reports. DDD Bureaus receiving live operator reports will record on the mark sense ticket the appropriate standard source and trouble type code.

2.02 System wide application of standard source and type of trouble codes will allow inter-exchange of information between all DDD Service Bureaus and Area Network Service Centers (Long Lines.)

3.0 REPORT SOURCES AND DISPOSITION

3.01 Sources of reports and their dispositions are —

CLASSIFICATION	SOURCE (NOTE 1)	DISPOSITION
Special Services	Operator & Customer	DDD Bureau
a. Overseas		DDD Bureau
b. WATS		DDD Bureau
c. Data		DDD Bureau
D.D.D.	Operator & Customer	DDD Bureau
Credit Requests	Customer	DDD Bureau (Note 2) OMS Ticket
Local Assistance (DSA)	Customer	DDD Bureau (Note 3) P.S.C.
Code 5, 7, 8	P.S.C.	DDD Bureau (Note 4) Local C.O.
Coin	Operator & Customer	P.S.C.
Switchboard Troubles	Operator	Local Plant
a. Lamps		Local Plant
b. Cords		Local Plant
c. Keys & Keysets		Local Plant
d. Calculagraphs		Local Plant
Service Observations	Service Observer	DDD Bureau & Observed Machine
a. Incoming Trunk		DDD Bureau & Observed Machine
b. Outgoing Trunk		DDD Bureau & Observed Machine

CLASSIFICATION	SOURCE (NOTE 1)	DISPOSITION
c. DDD Dial Line		DDD Bureau & Observed Machine (As Directed)
d. Local Dial Line		
121 Assistance	Operator	DDD Bureau
131 Assistance	Operator	DDD Bureau
CDO Alarms	Operator	(As Directed)
Independent C.O. Alms.	Operator	(As Directed)

Note 1 – Customer reports are operator referred reports

Note 2 – Credit requests can be reported direct to DDD Bureau and marked on OMS ticket. In latter case listings are provided weekly by the DPC to the Service Bureau.

Note 3 – Common control or single train SXS assistance reports can be taken by the DDD Bureau to assist in end office analysis. Areas with little or no DDD traffic originating and terminating in their area are good candidates.

Note 4 – Same comments as Note 3 – location taking local assistance reports performs TOK and FOK analysis.

4.0 REPORTING METHODS

4.01 Different reporting methods are employed throughout the System for transmitting operator switchboard reports to DDD Service Bureaus. Local factors will determine which method best meets the requirements of each location, but where large volumes of reports are received, or TSPS serves any portion of the Bureaus Prime Area, mechanized reporting must be considered.

4.02 Various methods for transmitting operator reports to DDD Bureaus are –

- (1) Operator (Cord boards) selects reporting trunk and *keys trouble* information using System standard format and trouble codes to DDD Bureau.

Reporting trunk is associated with card punch in the Bureau. Bureau personnel sort the cards to form patterns, and then list them using printers located in Bureau or at Data Processing Centers.

Other forms of input can be key punched by Bureau into the trouble ticket and associated with operator reports for analysis. (Service Observing etc.)

- (2) Operator mark senses trouble information on OMS ticket following System standard format. Traffic clerk using an optical mark sense reader transmits the data to a DDD Bureau card punch. The same procedure is then followed as in (1).

- (3) Either method of reporting as used in (1) or (2) except that data is fed directly into a computer for assembly, and output is transmitted back to originating Bureau TTY via data-phone. Where circuit holding time is a factor, Bureau can produce a tape first and then complete the printing operation after the circuit is released.

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(4) Operator (cord-board) selects reporting trunk to Bureau and passes call failure information to report clerk verbally. The clerk prepares a mark sense trouble ticket using System standard trouble coding.

Bureau performs manual sorting of mark sense cards for significant trouble patterns. At prescribed intervals cards are forwarded to DPC for preparation of lists for detailed analysis. Other data is mark sensed and associated with operator reports. (Service observing, connection appraisal, etc).

(5) Operator (TSPS) encountering failure, operates trouble key and keys (2) two digits for identification of trouble source and type, followed by start key.

Information is transmitted to DDD Bureau TTY for a hard copy and also prepares a tape.

Tape is transmitted to computer for assembly and output data is returned to originating Bureau or other Bureaus serving the FNPAs as directed.

4.03 Locations presently on mechanized reporting must –

(1) Determine if present method can accommodate expected TSPS report volumes and also produce standard format out-puts which can be inter-exchanged with other Bureaus.

(2) Where computer assembly and listing of data is implemented for TSPS – furnish inter-face equipment (optical scanners or card readers) to integrate remaining cord board data with TSPS data for analysis.

(3) Where a TSPS program is not a part of any current plans, and operator trouble reporting is already mechanized, arrange for inter-face equipment which will allow tape preparations while receiving operator reports. These tapes can then be transmitted to a centralized computer which is receiving TSPS reports from other locations, merge them, and return the assembled data to the Bureaus serving the points encountering the failures.

4.04 Bureaus which have not mechanized the processing of their operator reports should review the following advantages of some type of mechanization.

(1) Reduced operator holding time while reporting.

(2) Quicker pattern analysis.

(3) Handles large volumes of reports.

Bureaus which can conveniently handle their present report levels manually and perform a thorough analysis job must consider the conversion and machine costs prior to mechanization.

5.0 GENERAL REPORTING PROCEDURES

5.01 Traffic Operating Practices which cover in detail the procedures for trouble reporting from switchboards and TSPS positions are –

Division G Section 10 – General Procedures and Techniques – Operator Trouble Reporting

Division C Section 24 – Traffic Service Position – Reporting Trouble

5.02 Switchboards employing mechanized reporting procedures will use System standard report codes and input and output formats as listed in Section 010-401-014.

5.03 Section 010-401-015, "Hold and Trace Procedure" has attachments which outline procedures for the use of the 161-1 trouble reporting trunk. The attachments #1 through #6 show procedures to be followed when tracing through various types of switching systems and equipment arrangements.

6.0 SUMMARY

6.01 Traffic will *report* troubles in 3 ways – (See Attachment #2)

(1) Hold and report (as directed)

- a. No Ring – No – Answer
- b. No Operator Answer

(2) Report only (operator or customer)

- a. Wrong number or intercept
- b. Noisy, crosstalk or garble
- c. Can't hear or can't be heard
- d. Improper supervision
- e. Cut off

(3) On mark sense billing ticket

- a. Reorders – 3rd attempt.
- b. Credit requests (as directed)
 - 1 – Wrong number
 - 2 – Cut off
 - 3 – Transmission, noise, garble

OPERATORS REPORT TROUBLES
IN THREE WAYS

1. HOLD AND REPORT - (AS DIRECTED)

OPERATOR HOLDS TRUNK OUT OF SERVICE AND REPORTS TO BUREAU WHENEVER SHE ENCOUNTERS -
NO RING - NO ANSWER
NO OPERATOR ANSWER

2. REPORT ONLY - (OPERATOR & CUSTOMER REFERRED)

OPERATOR REPORTS OR KEYS ALL CASES OF -
POOR TRANSMISSION - NOISE - CUTOFF
CAN'T HEAR - CAN'T BE HEARD
IMPROPER SUPERVISION
WRONG NUMBERS - INTERCEPT

3. MARK SENSE BILLING TICKET (AS DIRECTED)

A. - OPERATOR MARKS "RO" BUBBLE WHEN SHE ENCOUNTERS A 3RD REORDER

B. - OPERATOR MARKS "DIAL RATE" BUBBLE WHEN SHE RECEIVES A CREDIT REQUEST FOR CUTOFF - NOISE POOR TRANSMISSION - "CTO" & "PTR" ON BACK SIDE OF TICKET ALSO MARKED

C. - OPERATOR MARKS "WNO" BUBBLE ON CREDIT REQUESTS FOR WRONG NUMBERS

PLACE	FROM CO	CHARGE	TO CO	TO NO	RAO	10	30+	BL	CA
BILL TO						A.M. 11	FROM NNX	FROM NO.	
						P.M. 12	COIN	PT CHG	NOTE
							0	0	0
STATE	P-CB	NC PD				1	1	1	1
	S	3RD NO				2	2 ABC	2 ABC	2
	P	CR CD				3	3 DEF	3 DEF	3
	COL	YES				4	4 GHI	4 GHI	4
	TBC	SP COL				5	5 JKL	5 JKL	5
	Q DET	CN PD				6	6 MNO	6 MNO	6
	AC N	COL				7	7 PRS	7 PRS	7
		TO CN				8	8 TUV	8 TUV	8
						9	9 WXY	9 WXY	9
						10			

5 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78

RAO PLACE STATE OR LOC TO RECH CR CHI