

TOPIC 5

TECHNICAL CONTROL ADMINISTRATION

INTRODUCTION

The objective of each NAVSECGRU or SPINTCOMM Technical Control Facility (TCF) is to provide a reliable communications path for the timely exchange of information between designated users. As a member of the technical control team, you will quickly see that being proficient at your job requires a sound fundamental knowledge of communications signal flow, a functional use of available testing equipment, and an understanding of administrative tools and requirements, such as logs, forms, and reporting procedures.

TECHNICAL CONTROL LOGS

A communications log is a continuous record of events that occur during a 24-hour period or radio day. Never erase an entry in any communications log. Make any changes by drawing a single line through the original entry and indicating the changed version next to the original entry. The controller or supervisor making the change initials all such changes. Keep log entries legible. All logs must be complete and accurate. Station logs and records are maintained to conduct performance analysis and to afford a comprehensive picture of all circuit outages and failures. You, as the on-watch controller, may have spent many constructive hours troubleshooting a faulty circuit. That effort may be for nothing if your station log does not reflect the procedures, tests, and coordination techniques already applied. Accurate logs also identify *circuit trends*.

PERSONAL SIGNS

A personal sign is a two-letter identification, usually the operator's initials, assigned

to each operator. Your personal sign is your "signature" on all logs and records. It identifies your work. The chief requirement concerning personal signs is that they must be legible.

TELECOMMUNICATIONS SERVICE REQUEST (TSR)

A TSR is a valid, approved, and funded telecommunications requirement, prepared in accordance with chapter 3 of DCAC-310-130-1, *Submission of Telecommunications Service Requests*. Requirements for telecommunications service will be validated in accordance with the policies and procedures of the parent command. The TSR is divided into the following numbered sequences:

- Item 101 General Technical Information
- Item 201 AUTOVON/AUTOSEVO-COM Service Information
- Item 301 AUTODIN MSU Service
- Item 352 DDN Service Information
- Item 401 Narrative Information
- Item 501 Justification and Approvals

The itemized format permits computer processing of TSRs into Telecommunications Service Orders (TSOs). The TSR sequence item number is the key used by computer software to transfer information from specific TSR items to specific TSO paragraphs. Detailed information on TSR submission is in DCAC-310-130-1.

TELECOMMUNICATIONS SERVICE ORDER (TSO)

The TSO is the authorization to start, change, or discontinue circuits, trunks, links, or systems; to amend previously issued TSOs; and to effect administrative changes. Verbal TSOs are issued when there is not enough time to prepare and distribute a record TSO. Verbal TSOs are issued as Operational Direction Messages (ODMs) when possible; they must be confirmed by a record TSO within 5 working days of issue.

Numbering

Each TSO is assigned an alphanumeric TSO number (e.g., D60019/B350-02 or E65002/

34JH02-02). Figure 5-1 is a sample TSO number: D60019/B350-02. The makeup of this TSO number indicates that it was issued by Headquarters, DCA in 1986, it was the 19th TSO issued by that office, and it was the second action taken on circuit B350.

A message may contain one or more TSOs. Each circuit or trunk action for each service availability involved carries a separate TSO number, with each TSO of a multiple TSO in a separate part of the message.

Prepare TSOs for electrical transmission in teletypewriter message format as shown in figure 5-2. The paragraphs following the figure briefly describe the entries for each TSO paragraph. Further details may be found in DCAC-310-70-1, *DCA Systems Control*.

(1)	(2)	(3)	(4)	(5)
D	6	0019	/ B350	- 02
(1)	The beginning letter designates the issuing office: DCA HEADQUARTERS—D.C.; DCA-EUROPE—E, F, G, or H; DCA-PACIFIC—P or Q; and NCS/DCAOC-AED—A, B, X, or W.			
(2)	The first digit designates the year in which the TSO is issued, such as 6 for 1986.			
(3)	The next four digits represent sequential TSO serial numbering within the year, beginning 1 January.			
(4)	Following the diagonal mark (/) are the last four characters of the circuit CCSD, or the entire six-character designator of the trunk being acted upon.			
(5)	Following the dash (–) is a two-digit number that identifies the sequential action being taken on the circuit or trunk. The number 01 is used as the first action or start; numbers 02 through 99 are used in sequential order to indicate changes occurring within the circuitry or equipments.			

Figure 5-1.—Sample TSO number.

UNCLAS E F T O R
 FM DCA PAC TSR-TSO-CRP TRAFFIC WHEELER AFB HI//P211A//
 TO DCS STATION FT BUCKNER JA//TCG/SYT/FCO//
 DCS TECH CONTROL FAC CP ZAMA JA
 INFO DIRUSARCCO RFS-TSR TRAFFIC FT HUACHUCA AZ//ASA-DN//
 DDN PMO TSR-CRP TRAFFIC WASH DC
 CDR7THSIGCMD FT RITCHIE MD//ASN-PO-TL/ASH-PO-M//
 CDR169THSIGCO TAEGU KOR//CCD-DB-D//
 DCA NWP YOKOTA AB JA
 DCA SWP CLARK AB RP
 DCA WASH DC//B440//
 USCINCPAC HONOLULU HI//C3STM//
 CDRUSAISCJ CP ZAMA JA//CCJ-PO-OD//
 RUADBEA/CDRUSAISC FT BUCKNER JA//ASJS-DDN//
 DCA PAC WHEELER AFB HI//P500, BBN/P430//

BT

UNCLAS E F T O

SUBJ: TSO P51102/XDCX-01B

- A. DDN PMO 191943Z JUL 85, TSR
- B. TELCON MSGT SELDERS/CP ZAMA TCF, MSGT SMITH/DCA PAC, 10 SEP 85
- C. DDN PMO 122337Z NOV 85, TSR AMEND
- D. DCA PAC/P430 DF, TSR CORRECTION, 19 NOV 85

1. PURPOSE

- A. THIS TSO IS ISSUED TO START A 50-KB DDN, SYNCHRONOUS, 1ST BETWEEN FT BUCKNER DDN AND CP ZAMA DDN.
- B. NA
- C. NA

2. GENERAL CIRCUIT/TRUNK INFORMATION

- A. DUN8XDCX
- B. 0D(C)
- C. START
- D. 130001Z DEC 85
- E. (1) CP ZAMA DDN JA/7 CONTACT: DCA COORD. 233-4927
 (2) FT BUCKNER DDN JA/7 CONTACT: DCA COORD. 635-3841
- F. A9
- G. FULL DUPLEX (N)
- H. CCO CP ZAMA TCF
- I. 50 KB
- J. KG-84A
- K. FULL PERIOD
- L. NO SIGNALING
- M. NA
- N. DU17JUL852334C
- O. NA
- P. A
- Q. A
- R. NA
- S. DK
- T. NA
- U. (1) NA
 (2) NA

Figure 5-2.—Sample TSO.

V. NA
W. NA
X. NA
Y. D
Z. NA
AA. DCA
AB. NA
AC. NA
AD. NA
AE. NA
AF. NA
AG. NA
AH. NA
AI. NA
AJ. NA
AK. NA
AL. NA
AM. NA
AN. NA
AO. NA
AP. NA
AQ. NA
AR. NA
AS. NA
AT. NA
AU. NA
AV. NA
AW. NA
AX. NA

3. FACILITY AND EQUIPMENT INFORMATION

A. SIDE 1

- (1) (A) NA
- (B) NA

B. BLDG: 101

- (1) (A) BBN-C/30 IMP (MIL-STD 188-114, BALANCED, IMP 77 PORT 3)
- (B) RED DIGITAL PATCH
- (C) KG-84A
- (D) BLACK DIGITAL PATCH
- (E) LINE DRIVER (AVANTI 2200, MIL-STD 188-114 BALANCED)
- (F) PATCH
- (G) CABLE TIE POINT
- (2) (A) 77 C NO SIG
- (B) 7,000FT, 22CANL, LOSS UNKN, USA

C. CP ZAMA JA TCF

BLDG: 771

- (1) (A) CABLE TIE POINT
- (B) PATCH 0.0 / 0.0
- (C) LINE DRIVER (AVANTI 2200, MIL-STD 188-114 BALANCED)
- (D) DIGITAL PATCH
- (E) LINE DRIVER (DDU)
- (F) PATCH 0.0 / 0.0

Figure 5-2.—Sample TSO (continued).

- (G) CABLE TIE POINT
 (2) (A) 77 C NO SIG Z
 (B) 9,000FT, 22CANL, LOSS UNKN, USAF
- D. CP ZAMA JA SYT
 BLDG: 1030
 (1) (A) CABLE TIE POINT
 (B) PATCH 0.0 / 0.0
 (C) LINE DRIVER DDU
 (D) DIGITAL PATCH
 (E) MUX (GSC-24)
- (2) (A) 77CN20 OBOT NO SIG Z
- E. FT BUCKNER JA SYT
 BLDG: 103
 (1) (A) MUX (GSC-24)
 (B) PATCH 0.0 / 0.0
 (C) CABLE TIE POINT
- (2) (A) 77 C NO SIG Z
 (B) IN-HOUSE CABLE
- F. FT BUCKNER JA DDN
 BLDG: 103
 (1) (A) CABLE TIE POINT
 (B) KG-84A
 (C) RED DIGITAL PATCH
 (D) BBN-C/30 IMP (MIL-STD 188-114, BALANCED, IMP 82 PORT 3)
- (2) (A) NA
- G. SIDE 2
 (1) (A) NA
 (2) (B) NA
- H. FT BUCKNER JA DDN
 BLDG: 103
 (1) (A) BBN-C/30 IMP (MIL-STD 188-114, BALANCED, IMP 82 PORT 3)
 (B) RED DIGITAL PATCH
 (C) KG-84A
 (D) BLACK DIGITAL PATCH
 (E) CABLE TIE POINT
- (2) (A) 77 C NO SIG Z
 (B) IN-HOUSE CABLE
- I. FT BUCKNER JA SYT
 BLDG: 103
 (1) (A) CABLE TIE POINT
 (B) DIGITAL PATCH
 (C) MUX (GSC-24)
- (2) (A) 77CN20 ODOT NO SIG Z
- J. CP ZAMA JA SYT
 BLDG: 1030
 (1) (A) MUX (GSC-24)
 (B) DIGITAL PATCH
 (C) LINE DRIVER DDU
 (D) PATCH 0.0 / 0.0
 (E) CABLE TIE POINT
- (2) (A) 77 C NO SIG Z

Figure 5-2.—Sample TSO (continued).

- (B) 9,000FT, 22CANL, LOSS UNKN, USAF
- K. CP ZAMA JA TCG
BLDG: 771
- (1) (A) CABLE TIE POINT
(B) PATCH 0.0 / 0.0
(C) LINE DRIVER (AVANTI 2200, MIL-STD 188-114 BALANCED)
(D) DIGITAL PATCH
(E) CABLE TIE POINT
- (2) (A) 77 C NO SIG Z
(B) 7,000FT, 22CANL, LOSS UNKN, USA
- L. CP ZAMA JA DDN
BLDG: 101
- (1) (A) CABLE TIE POINT
(B) PATCH 0.0 / 0.0
(C) LINE DRIVER (AVANTI 2200)
(D) BLACK DIGITAL PATCH
(E) KG-84A
(F) RED DIGITAL PATCH
(G) BBN-C/30 IMP (MIL-STD 188-114, BALANCED, IMP 77 PORT 3)
4. MULTIPLEXING EQUIPMENT: NA
5. OTHER SPECIFIC DIRECTIONS
- A. STATION DESIGNATED IN PARAGRAPH 2H AS CCO OR FCO WILL SUBMIT COMPLETION REPORT IAW DCAC 310-130-1, SUPP 1, 2, OR 3 FORMAT. REPORT WILL BE ADDRESSED TO ORIGINATOR AND ALL ADDEES OF THIS TSO.
- B. DATA BASE ACTION WILL BE TAKEN BY DCA-PAC.
- C. STATIONS IN PARA 3 OF THIS TSO ARE RESPONSIBLE FOR VERIFYING IN-STATION DETAILS AND FORWARDING THE CORRECT INFORMATION, IF ANY DISCREPANCIES ARE NOTED, TO THE CCO/FCO DESIGNATED IN PARA 2H. THE CCO/FCO WILL SUBMIT CORRECTIONS TO DCA PAC/P210 VIA "EXCEPTION REPORT" IAW DCAC 310-130-1, CHAP 2.
- D. EARLIER SERVICE DATE IS ACCEPTABLE.
- E. DCA PAC CONTACT IS MSGT A.C. SMITH, P211A, AUTOVON (315) 455-1127; COML (808) 655-1127.
6. NA
7. NA
8. NA

Figure 5-2.—Sample TSO (continued).

1. **Subject:** TSO number or "multiple TSO." Multiple TSOs can be written on circuits that have some commonality, such as several circuits of the same type between the same user terminals. If the subject is a multiple TSO, each circuit action will be contained in a separate part of the message.

2. **References:** Message or letter identification of items directly related to the TSO.

3. **Paragraph 1:** States the purpose of the TSO.

4. **Paragraph 2:** General circuit or trunk information used by the TCF in preparing the Circuit Data Card (DD Form 1441) (such

as CCSD or trunk identification, restoration priority, type of action (start/change/discontinue), and user geographical locations.)

5. **Paragraph 3:** Facility and circuit equipment information. This paragraph contains information on each facility through which the circuit is routed.

6. **Paragraph 4:** Other specified data, including multiplexing equipment and automated system ports.

7. **Paragraph 5:** Statements to direct testing, to direct submission of completion reports, and to establish proper levels or crypto-interface

requirements, and statements pertaining to test and acceptance.

8. **Paragraph 6:** DCS Automatic Voice Network (AUTOVON) information.

9. **Paragraph 7:** DCS Automatic Digital Record Network (AUTODIN) information.

10. **Paragraph 8:** DCS Defense Data Network (DDN) information.

Distribution

The TSO is normally sent for action to each user, the TCF station on the trunk or circuit, the designated DCS control office, and the leasing agency, if applicable. It is also sent to any other DCA circuit allocation and engineering offices if the trunk or circuit enters their areas of responsibility.

COMPLETION REPORTS

Reports are required during the activation and acceptance of new circuits and facilities, in accordance with DCAC 310-130-1; COI-101, *CRITICOMM System Operating Instructions, General*; and COI-104, *CRITICOMM System Operating Instructions, Facilities Control Procedures*.

A Completion Report (CRP) is required from the station's designated Communications Control Office (CCO) for every TSO issued, unless specified otherwise in the TSO. In the case

of TSRs for leased equipment only, TSOs are not issued. In these cases, completion reports will be submitted as directed in the TSR. The report indicates to the issuing office the order in which action has been completed or that additional action may be required. Three different reports have been designed to cover all situations—in-effect reports, exception reports, and delayed service reports. They are processed by computer insofar as possible; therefore, you must strictly follow the appropriate message computer format as outlined in DCAC 310-70-1.

Submit completion reports directly to the originator of the TSO and to all addressees on the TSO. Include only one type of report in any one message.

In-Effect Reports

All in-effect reports are forwarded directly to the originator and to all addressees of the TSO by the activity's designated CCO. This report must be sent within 72 duty hours after completion of action on the TSO. Submit an in-effect report either when the service is provided and accepted, meets all details of the TSO, and meets all technical parameters of the specified technical schedule, or to clear previously submitted exception or delayed service reports. One service will be covered by one in-effect report. See figure 5-3 for examples of in-effect reports.

SINGLE IN-EFFECT REPORT

FM 2045 CG ANDREWS AFB MD
TO DCAOC AED TSR-TSO-CRP TRAFFIC SCOTT AFB IL
INFO ALL ADDRESSEES ON TSO
UNCLAS
SUBJ: IN-EFFECT REPORT
A. REFERENCE TO MESSAGE
1. W61234/A123-03
2. AA 15 JAN 86 1234
3. ABCDA123
4. AT DP22343018, WUII DP 00277, ALLA DP 010334V
5. CHANGE
6. A. 011500Z APR 86
B. 011230Z APR 86 (WUII DP 00277)
010900Z APR 86 (ALLA DP 010334V)
7. REMARKS
8. POC MR. M. SMITH; 2045CG, ANDREWS AFB, MD;
AUTOVON 555-1212, CML (301) 981-1212

Figure 5-3.—Sample in-effect reports.

MULTIPLE IN-EFFECT REPORT

UNCLAS

SUBJ: MULTIPLE IN-EFFECT REPORT

A. REFERENCE TSO MESSAGE

THIS MSG IN 3 PARTS

PART 1

1. D60012/B123-01
2. DN 15 JAN 86 0010
3. ADNDB123
4. NA
5. START
6. A. 101500Z APR 86
B. 011230Z APR 86 (WUII DP 00277)
010900Z APR 86 (ALLA DP 010334V)
7. REMARKS
8. POC MR. M. SMITH; 2045CG, ANDREWS AFB, MD;
AUTOVON 555-1212, CML (301) 981-1212

PART 2

1. (Same as part 1 format in single in-effect report)
- 2.
- 3.
- 4.
- 5.
6. A.
B.
- 7.
- 8.

PART 3

1. (Same as part 1 format in single in-effect report)
- 2.
- 3.
- 4.
- 5.
6. A.
B.
- 7.
- 8.

Figure 5-3.—Sample in-effect reports (continued).

In-effect reports will contain the following information:

1. **Subject:** In-effect report or multiple in-effect report. (Submit multiple report only if TSO was multiple.)
2. **Reference:** Identification of the message forwarding the TSO.
3. **Item 1:** Complete TSO number.
4. **Item 2:** TSR number from TSO paragraph 2N of figure 5-2.
5. **Item 3:** CCSD or trunk identification from TSO paragraph 2A of figure 5-2.
6. **Item 4:** Commercial carrier and commercial circuit number from TSO.
7. **Item 5:** Type action from TSO paragraph 2C of figure 5-2.
8. **Item 6A:** Date, time, month, and year of completion of action.
9. **Item 6B:** Date, time, month, and year commercial service was provided, or enter

NA (not applicable) when no commercial service has been requested.

10. **Item 7:** Remarks: Note any administrative comments.
11. **Item 8:** Point of contact: Name, organization, and AUTOVON and commercial telephone numbers of person submitting the in-effect report.

Exception Reports

The activity's designated CCO within the TSO will, within 72 duty hours of completion of action

on the TSO, submit an exception report if end-to-end service is provided and accepted with some exceptions to, or deviations from, the details of the TSO or technical parameters of the specified technical schedule. Before accepting service, the designated activity advises the TSO issuing authority of those technical parameters failing to meet established standards, who, in turn, advises the activity if service is to be accepted with these exceptions. Forward exception reports directly to the originator and to all addressees of the TSO. When the exceptions are cleared, follow the exception report by an in-effect report. See figure 5-4 for examples of exception reports.

SINGLE EXCEPTION REPORT

FM ROBERTS AFB CA
TO DCAOC AED TSR-TSO-CRP TRAFFIC SCOTT AFB IL
INFO ALL ADDRESSEES ON TSO
UNCLAS
SUBJ: EXCEPTION REPORT
A. REFERENCE TSO MESSAGE
 1. W65678/F555-02
 2. WA 10 JAN 86 0123
 3. UKKEF555
 4. NA
 5. CHANGE
 6. A. 101600Z APR 86
 B. NA
 7. B
 8. REGEN CURRENTLY BEING PROCURED. EXPECT INSTALLATION
 APPROX 30 APR 86
 9. POC MRS. C. SMITH; ROBERTS AFB, CA: AUTOVON 555-1212, CML
 (902) 456-1212

MULTIPLE EXCEPTION REPORT

UNCLAS
SUBJ: MULTIPLE EXCEPTION REPORT
A. REFERENCE TSO MESSAGE
THIS MSG IN 2 PARTS
PART 1
 1. (Same as part 1 format in single exception report)
PART 2
 1. (Same as part 1 format in single exception report)

Figure 5-4.—Sample exception reports.

Exception reports contain the following information:

1. **Subject:** Exception report or multiple exception report. (Submit a multiple report only if the TSO was multiple.)

2. **Reference:** Identification of the message forwarding the TSO.

3. **Item 1:** Complete TSO number.

4. **Item 2:** TSR number from TSO paragraph 2N of figure 5-2.

5. **Item 3:** CCSD or trunk ID from TSO.

6. **Item 4:** Commercial carrier and commercial circuit number from TSO.

7. **Item 5:** Action requested from TSO paragraph 2C of figure 5-2.

8. **Item 6A:** Date, time, month, and year of completion of action.

9. **Item 6B:** Date, time, month, and year commercial service was provided or enter NA when no commercial service has been requested.

10. **Item 7:** Exception code from chapter 20, DCAC 310-65-1, *Circuit and Trunk File Data Elements and Codes Manual of the Defense Communications System*.

11. **Item 8:** Rationale (mandatory): Enter narrative remarks, including statement of which items are not as specified in the TSO:

- reason allocated channel was changed;
- statement of which parameters could not be met with actual readings compared to required readings;
- identification of the authority or activity that authorized acceptance of substandard service;
- statement of which specifications could not be measured, with reason and location;
- lack of response by a commercial carrier by name and location;
- proposal of any corrective action, with estimated date and time for completion of corrective action; and

any other remarks that will explain the exceptions.

12. **Item 9:** Point of contact: Name, organization, and AUTOVON and commercial telephone numbers of person submitting the exception report.

Delayed Service Reports

Delayed service reports, as shown in figure 5-5, must always be followed by either an in-effect report or an exception report.

Delayed service reports contain the following information:

1. **Subject:** Delayed service report or multiple delayed service report. (Submit multiple report only if TSO was multiple.)

2. **Reference:** Identification of the message forwarding the TSO.

3. **Item 1:** Complete TSO number.

4. **Item 2:** TSR number from TSO paragraph 2N of figure 5-2.

5. **Item 3:** CCSD or trunk ID from TSO paragraph 2A of figure 5-2.

6. **Item 4:** Commercial carrier and commercial circuit number from TSO.

7. **Item 5:** Type action from TSO paragraph 2C of figure 5-2.

8. **Item 6A:** Date, time, month, and year specified in TSO paragraph 2D of figure 5-2.

9. **Item 6B:** Date, time, month, and year commercial service was provided, or enter NA when no commercial service has been requested. This information is required even if the circuit user-to-user is not established. This information is for billing purposes only when a leased service is rendered, and the U.S. Government is obligated for payment. Every effort must be made to change start dates to avoid unnecessary expenditures.

10. **Item 7:** Delayed service code from chapter 20, DCAC 310-65-1.

11. **Item 8:** Date, time, month, and year service is expected to be provided, or enter UNKN (unknown).

12. **Item 9:** Cause (mandatory): If the delay is attributable to a commercial carrier, enter the reason for delay provided by the

SINGLE DELAYED SERVICE REPORT

FM NAVCOMMSTA HONOLULU HI
TO DCA PAC TSR-TSO-CRP TRAFFIC WHEELER AFB HI
INFO ALL ADDRESSEES ON TSO
UNCLAS

SUBJ: DELAYED SERVICE REPORT

A. REFERENCE TSO MESSAGE

1. P61114/K123-01
2. NA 15 DEC 85
3. BUAAK123
4. NA
5. START
6. 012200Z APR 86
7. A
8. UNKN
9. EXPEDITED ACTION IS BEING TAKEN TO INSTALL USER TERMINAL EQUIPMENT. DATE OF INSTALLATION NOT YET FIRM BUT ANTICIPATED APPROX 10 APR 86.
10. POC MR. FRANK SMITH; ATTN: CODE XYZ, NAVCOMMSTA, HONOLULU, HI; AUTOVON 315-555-1212, CML (808) 456-1212.

.....

MULTIPLE DELAYED SERVICE REPORT

UNCLAS

SUBJ: MULTIPLE DELAYED SERVICE REPORT

A. REFERENCE TSO MESSAGE

THIS MSG IN 2 PARTS

PART 1

1. (Same as part 1 format in single delayed service report)

PART 2

1. (Same as part 1 format in single delayed service report)

Figure 5-5.—Delayed service reports.

carrier and the name of the company. If user equipment or facilities are not installed or capable of operation, so state. Enter any other amplifying remarks that will explain the delay. If the forecasted delay as reported in item 8 of the delayed service report is unknown, a report will be submitted each 30 days until a firm date is established.

13. **Item 10:** Point of contact: Name, organization, and AUTOVON and commercial telephone numbers of person submitting the delayed service report.

**STATUS REPORTING
RESPONSIBILITIES**

It is the responsibility of each technical control operator to keep those commands that are directly or indirectly involved with circuit connectivity advised of the status of faulted circuits. Circuit status reporting enables troubleshooting to be accomplished while eliminating redundancy of efforts between stations. The DCS and CSM reporting systems are structured to provide management information regarding circuit or link status. This information enables

MASTER STATION LOG			FACILITY	DATE	PAGE	
					FROM	TO
CHANNEL OR CIRCUIT	ZULU TIME	OP INIT	ACTION/EVENT			

DD FORM 1753 1 SEP 70
REPLACES AF FORM 1019, NOV 68 AND DCA FORM 199 JUL 68. WHICH WILL BE USED UNTIL SUPPLY IS EXHAUSTED.

Figure 5-6.—Master Station Log (DD Form 1753).

DCA and CRITICOMM System Management (CSM) to plot real-time circuit activity and to compile historical data regarding circuit management.

Generally, there are four types of reports the technical control operator should be familiar with. They are:

1. Situation Reports (SITREPS),
2. Status Reports (STATREPS),
3. Condition Reports (CONREPS), and
4. Control Instructions (CONINS).

Depending on the size and type of circuits involved, each technical control facility will differ on reports that are required. Detailed instructions for status reporting may be found in DCAC 310-55-1, *Status Reporting for the Defense Communications System*, or in COI-101.

FORMS

Several forms are required to properly record the information necessary in maintaining a

continuing knowledge of the operational status of circuits and equipments of a station. The number and type of forms used in a TCF will vary with each station.

Master Station Log (DD Form 1753)

The Master Station Log, shown in figure 5-6, is the official narrative record maintained in the TCF describing significant events, such as time verification, shift or watch changes, shift or watch personnel accountability and duty assignments, special tests, and any other items of importance. Record summary data in narrative form on this log to provide information such as power failures, complete system and equipment outages, and unusual situations. However, entries are not limited to this information. The technical controller makes any entries necessary to cover events considered sufficiently important. Reference may be made to supporting documents (trouble tickets, equipment work orders, 55-1 reports,

TROUBLE AND RESTORATION RECORD							DATE	
POSITION			PRIORITY		<input type="checkbox"/> SND	<input type="checkbox"/> RCV	CONTROLLER	REPORTS
TRUNK			OUT	IN	RFO	FREQ	OUT	OUT
CHAN	CCSD		OUT	IN	RFO		IN	IN
CHAN	CCSD					CCSD	PRIORITY	SEND
A			OUT	IN				
A			OUT	IN				
K								
A			OUT	IN				
A			OUT	IN				
A			OUT	IN				
A			OUT	IN				
A			OUT	IN				
A			OUT	IN				
A			OUT	IN				
A			OUT	IN				
<input type="checkbox"/> REPORTABLE <input type="checkbox"/> NONREPORTABLE								
CCSD					RFO	SEGMENT (If required)		
U			OUT	IN				
			OUT	IN				
			OUT	IN				
			OUT	IN				
AMPLIFYING REMARKS (Use reverse if necessary)								

DD FORM 1443
1 JAN 69

PREVIOUS EDITION IS OBSOLETE

Figure 5-7.—Trouble and Restoration Record (DD Form 1443).

and CASREPS) that must be retained at least as long as the master station log. Station log files will be cut off at the end of each month, held 11 months in current files, and then destroyed. Enter the following items on the master station log:

1. **Facility:** Name and function of the facility (e.g., NSGA EDZELL TCF or CINCPAC SPINTCOMM TCF).

2. **Date:** Current day, month, and year (e.g., 17 March 1987).

3. **Time period:** ZULU time of the first log entry (From) and ZULU time of the last log entry (To) on this page.

4. **Subject:** Identification of such items as the communications channels, circuits, trunks, systems, and links pertaining to the log entry.

5. **ZULU (Z) time:** Greenwich Mean Time (GMT) of the event or action.

6. **Operator initials:** Initials of the individual making the log entry.

7. **Action or event:** Narrative explanation of the action or event. Enter sufficient detailed information to fully explain the situation. Common abbreviations may be used.

Trouble and Restoration Record (DD Form 1443)

The Trouble and Restoration Record, shown in figure 5-7, is used to record and document circuit, channel, trunk, system outages, and problems identified during in-service Quality Control (QC) checks. This record provides complete circuit or channel outage information for operational guidance. Outage and trouble record files will be cut off at the end of each month, held 11 months in current files, and then destroyed. Refer to DCAC-310-70-1 for specific details of DD Form 1443.

TECHNICAL CONTROL COMMUNICATIONS WORK ORDER		
WORK ORDER REQUESTED BY <i>(Signature)</i>		DATE
EQUIPMENT REQUIRING REPAIRS		TIME REQUIRED
NAME	TYPE	TIME STARTED
WORK ASSIGNED TO <i>(Maintenance activity)</i>		TIME COMPLETED
DEFECT		
INSTRUCTIONS		
REPAIRS PERFORMED		
WORK COMPLETED BY <i>(Signature)</i>		

DD FORM 1445
1 AUG 63

Figure 5-8.—Technical Control Communications Work Order (DD Form 1445).

Technical Control Communications Work Order (DD Form 1445)

The DD Form 1445, shown in figure 5-8, is used to notify the maintenance personnel of failure or substandard operation of equipment. It also provides a record of Hazardous Conditions (HAZCONs) and equipment status for the TCF. Work order record files will be cut off at the end of each month, held 11 months in current files, and then destroyed. Refer to DCAC-310-70-1 for specific details of DD Form 1445.

Circuit Data Card (DD Form 1441)

Information concerning all circuits and channels appearing in the TCF must be recorded in a way to allow fast and easy access. Complete this form for all circuits. Filed alphabetically, numerically, or by CCSD and trunk designator, the Circuit Data Form, shown in figure 5-9, serves

as a locator for quick reference. This form also provides a permanent record for administrative purposes as long as the circuit exists. Retain it in a dead file for 6 months after deactivation of the circuit. The TSO is a primary source of information for preparing this form. In-station equipment and circuit appearances will be added as required. Information should be presented as follows:

1. **CCSD:** Enter the CCSD from the TSO.
2. **Landline channel number:** Enter the multiplex trunk and channel number or the cable designation for each direction from the TSO.
3. **Terminals:** Enter the user terminal facilities by geographical location and the enroute facility code from the TSO.
4. **Control facilities:** Enter the geographic location of the TCFs adjacent to the user terminal location from the TSO.
5. **NCS RP:** Enter the NCS Restoration Priority (RP) from the TSO.

DD FORM 1441, 1 JAN 69					CIRCUIT DATA				
CCSD		LANDLINE/CHAN NO		TERMINALS		CONTROL FACILITIES		NCS RP	
TERM STATION		OPERATING AGENCY		USER TERM EQUIPMENT		USER CONTACT			
TERM STATION		OPERATING AGENCY		USER TERM EQUIPMENT		USER CONTACT			
TYPE CIRCUIT		USE		CCO (SCCO)		MODULATION RATE		CRYPTO SERVICE	
ACTIVATION AUTHORITY		DATE AND TIME INSTALLED		CKT MODIFICATIONS(Continue on reverse side)		AUTHORITY		DATE AND TIME COMPLETED	
DEACTIVATION AUTHORITY		DATE AND TIME CEASED							
CONDITIONING EQUIPMENT					REMARKS				
PAD									
REPEAT COILS									
LINE AMPLIFIER									
DELAY EQUALIZER									
AMPLITUDE EQUALIZER									
REGENERATIVE REPEATER (TTY)									
4 WAY 4 WIRE BRIDGE									
RAY TERMINAL SET									
LCHO SUPPRESSOR									
OTHER									
CCSD		LANDLINE/CHAN NO		TERMINALS		CONTROL FACILITIES		NCS RP	

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Figure 5-9.—Circuit Data Card (DD Form 1441).

6. **Term station:** Enter the geographical location of each terminal station from the TSO.

7. **Operating agency:** Enter the O&M agency of each terminal station, if known.

8. **User term equipment:** Enter the type or model of user terminal equipment (e.g., M28 ASR, AN/FGC-39) from the TSO.

9. **User contact:** Enter the contacts from the TSO or as available.

10. **Type circuit:** Enter the circuit parameter code from the TSO.

11. **Use:** Enter communications network (AUTODIN, AUTOVON, or AUTOSEVCOM).

12. **CCO:** Enter the CCO from the TSO.

13. **Modulation rate:** Enter the modulation rate from the TSO.

14. **Cryptoservice:** Enter the security equipment nomenclature from the TSO.

15. **Activation authority:** Enter the TSO number.

16. **Date and time installed (activated):** Enter the circuit activation date and ZULU time shown in the in-effect report.

17. **Deactivation authority:** Enter the TSO number discontinuing the circuit.

18. **Date and time ceased:** Enter the date and ZULU time the circuit was discontinued.

19. **CKT modifications:** Enter the latest TSO number directing changes to the circuit, and the date and ZULU time the change was completed.

20. **Condition equipment:** Enter the conditioning and signaling equipment locations (such as rack number, jack number, or strapping options) for all in-station equipment.

21. **Remarks:** Enter the circuit routing and the trunk, line, and channel assignments of each facility from the TSO.

22. **Bottom line of card:** The bottom line of the card will be completed, using the entries on the top line, when a kardex type file is used.

In-Station Circuit Diagrams

An in-station circuit diagram is a detailed diagram or chart depicting equipment and circuit appearances maintained and readily available to TCF personnel. As a minimum, include audio-signal levels, type signaling, and signaling frequency for each test point. The reverse of DD Form 1441 may be used to satisfy this requirement.

Circuit Parameter Test Data (DD Form 1697)

Use DD Form 1697 to record T&A data for initial acceptance of service and for each reconfiguration of the circuit. File a copy of this report with the corresponding TSO in the TCF files. The copy should be maintained for the life of the circuit. This form is not forwarded to DCA or to O&M elements when scheduled or unscheduled quality control testing is performed, unless the TCF is asked to do so for specific circuits and for specific periods of time. However, a record of quality control tests will be maintained in the TCF files. Detailed information regarding DD Form 1697 may be found in DCAC-310-70-1, volume II.

Circuit History Folders

The following 11 records and reports should be prepared, maintained, and available to controllers for all circuits installed:

1. Circuit Data Card (DD Form 1441).
2. Circuit Parameter Test Data Form (DD Form 1697): Completed during initial acceptance, and maintained by each CCO and servicing technical control for the life of the circuit. The original DD Form 1697 that contains the accepted circuit parameter is an important document for future reference.

3. Telecommunications Service Order: Copies of the original and latest TSOs that reflect the current configuration and control office assignment will be maintained on each active circuit, trunk, or link by the control office designated in the TSO.

4. Record of equipment.
5. Cable record.
6. Patch panel layouts.
7. Cross-connect record.
8. Fuse or ballast lamp record.
9. Line isolation relay or dc level converter record.
10. Strapping options used for communications equipment.
11. In-effect, delayed service, and exception reports.

REFERENCES

Submission of Telecommunications Service Requests, DCAC-310-130-1, Defense Communications Agency, Washington DC, February 1986.

DCS Systems Control, Vol. II, *Operational Procedures, TCF/PTF/MTC's*, DCAC-310-70-1, Defense Communications Agency, Washington, DC, August 1986.

Radioman 3&2, NAVEDTRA 10228-H, Naval Education and Training Program Development Center, Pensacola, FL, 1984.

Status Reporting for the Defense Communications System, DCAC 310-55-1, Defense Communications Agency, Washington DC, November 1983.

Circuit and Trunk File Data Elements and Codes Manual of the Defense Communications System (DCS), DCAC-310-65-1, Defense Communications Agency, Washington, DC, April 1987.