Appendix C

Special C-EMS Forms

C-1. Introduction

The special forms in this appendix are designed to facilitate C-E management based on the interrelationship between headquarters, signal units, and control centers throughout the Army in the field. Effective C-E management requires maintaining essential records at key locations and a flow of reports and directives between elements of the system.

Note: Forms that contain classified information, such as the locations of facilities or units, unit designations, frequencies used, etc., must be classified CONFIDENTIAL or higher. They must be handled in accordance with security regulations.

C-2. Communications System Information Summary

The communications system information summary specifies the format and content for rendering periodic reports by the Army in the field that may be used by Department of the Army for long range planning, research and development, programing procurement schedules, and for preparation and modification of doctrine. This summary is a permanent record of C-EMS operations addressing system status and performance, use of equipment and supplies, personnel and training, experience data, and user requirements. It is prepared at theater army and the senior combat zone command (corps). The information contained in the report is derived from the system performance analysis and the equipment and personnel records of the command and supporting senior signal unit. The recommended format for the communications system information summary in outline form is shown in figure C-1.

a. The first three paragraphs identify the command preparing the summary, the date prepared, and the period covered by the summary.

b. Paragraph 4 addresses the TOE/TDA organizational structure of the signal units in the command. New and excess organizational requirements are projected and the organizations, TOE/TDA, and number affected are identified together with the projected requirement data. For those units projected to be excess, a proposed disposition of the resources will be stated. This paragraph will also identify recommended changes and modifications to existing TOE's and TDA's.

c. Paragraph 5 identifies projected new and excess personnel resource requirements, recommends changes to TOE/TDA personnel authorizations, and identifies special qualifications, skill levels, grade requirements, and requirements for new military occupational specialties (MOS).

d. Paragraph 6 identifies projected new and excess equipment resource requirements by major critical end items. This paragraph also identifies special requirements for nonstandard items, recommends changes to TOE/TDA equipment authorizations, and lists the status of the deployment and theater test and evaluation of new equipment introduced into the theater command.

1. From
2. To
3. Summary Period: From; To
4. Organization (TOE, TDA, Separate Teams)
   A. New Requirements Projections
      Title; Number; Quantity; Date Required
   B. Excess Requirements Projections
      (1) Title; Number; Quantity; Date Excess
      (2) Disposition
   C. Recommended Changes to Unit Compositions
      Table Number; Title; Modification
5. Personnel (By Team and/or Critical MOS)
   A. New Requirements Projections
      Team Code/MOS; Title; Grade; Quantity; Date Required
   B. Special Qualifications Requirements
   C. Recommended Changes to Personnel Authorizations
      Table Number; Title; List Number; Modification
   D. New MOS Description/Skill Level/Grade Requirements
   E. Excess Requirements Projections
      (1) Title; Grade; Quantity; Date Excess
      (2) Disposition
6. Equipment
   A. New Requirements Projections (Critical Items)
      (1) Electronics
         Team/Major End Item; Type/Model; Quantity; Date Required
      (2) Power
         Team/Major End Item; Type/Model; Quantity; Date Required
      (3) Ancillary
         Team/Major End Item; Type/Model; Quantity; Date Required
      (4) Miscellaneous
         Team/Major End Item; Type/Model; Quantity; Date Required
   B. Special Requirements (Nonstandard Items)
   C. Recommended Changes to Equipment Authorizations
      Table Number; Title; Line Number; Modifications

Figure C-1. Format for Communications System Information Summary

e. Paragraph 7 evaluates the communications systems performance. The traffic handling assessment addresses the command and area communications systems separately. For both systems, the total number of telephone calls by precedence are reported for the period together with the percent change from the last period, the system grade of service, and the average holding time. Problem areas are identified and analyzed with respect to the system, switches, and trunks. A qualitative evaluation statement is made concerning the acceptability of the grade of service and means to improve the system performance. For both systems, the total number of teletypewriter messages and the number of data cards by precedence are reported for the period together with the percent change from the last period and the speed of service based on elapsed time between filing time (TOF) and transmission time (TOT). Problem areas are identified and analyzed with respect to the terminal and relay facilities, and a qualitative statement is made concerning the acceptability of the communications service provided. Similar kinds of information will be included for facsimile, closed circuit television, and messenger/courier services. Subparagraph B identifies special system problems, such as system security, radio frequency interference, system interface, and allied/indigenous interface considerations. Subparagraph C may be used to recommend doctrinal changes and to report changes to the command on unit SOP based on an analysis and evaluation of operating problems encountered. Subparagraph D addresses frequency resources, identifying new frequency requirements, and frequencies found to be excess to requirements. Use of automated frequency management procedures to provide CEOI items will be reported in a narrative summary as well as transmission anomalies peculiar to the area of operations and other frequency problem areas.

f. Paragraph 8 will address logistic support of the communications systems; in particular, critical supply and maintenance requirements, special transportation and handling requirements, special CONUS and/or offshore procurement requirements, as well as the recovery and reclamation of C-E materiel.

D. New Equipment Introduction

(1) Status of Theater Test and Evaluation

(2) Status of Equipment Deployment

E. Excess Requirements Projections

(1) Team/Major End Item; Type/Model; Quantity; Date Excess

(2) Disposition

7. System Performance

A. Traffic Handling Assessment

(1) Command System

(a) Telephone Calls

1. Total for reporting period by precedence.
2. Percent change from last period by precedence
3. Grade of service
4. Average holding time
5. Problem analysis
6. Qualitative evaluation statement

(b) Teletypewriter Messages

1. Total for reporting period by precedence
2. Percent change from last period by precedence
3. Speed of service
4. Problem analysis
5. Qualitative evaluation statement

(c) Data Cards

1. Total for reporting period by precedence
2. Percent change from last period by precedence
3. Speed of service
4. Problem analysis
5. Qualitative evaluation statement

(d) Other

1. FAX
2. Closed circuit TV
3. Messenger/courier

8. Logistics

A. Supply Requirements

B. Maintenance Requirements

Figure C-1 (Cont)

g. Paragraph 9 will depict the status of the command training structure consolidated by level of command. Subparagraph A presents the command schooling status in terms of the MOS and non-MOS training courses that are conducted by the command. Subparagraph B projects the CONUS student output to the command that is required to satisfy MOS requirements, based on anticipated personnel rotation, losses, and operational requirements projected by paragraph 5A. Subparagraph C provides recommendations for changes in the POI for CONUS schools based on operational experiences. The purpose of these recommended POI changes are to provide the command with course graduates better qualified to assume assigned organizational duties with a minimum of OJT or other additional training. Subparagraph D provides recommendations for the establishment of new courses (both MOS producing and non-MOS courses) to develop skills which cannot be provided by modification of existing school courses.

h. Paragraph 10 gives considerations that may influence budget and program actions by Department of the Army. Subparagraph A discusses new project requirements, such as new stations/facilities, new systems, class IV signal projects, and associated construction. Subparagraph B reports on the status of current projects, to include the funding of projects being performed by both military and civilian contractor effort. Subparagraph C identifies projects completed during the reporting period and evaluates their impact on the communications systems. Subparagraph D projects contractual support requirements for goods and services, and reports and contractual obligations incurred and the funding status of contractual support during the reporting period.

i. Paragraph 11 provides general information not covered by the other paragraphs of the communications system information summary. This information may identify test and evaluation programs in progress in the command, report the status of these programs, and provide an evaluation of the results as they impact the command mission. Additional information can include such items as recommended doctrine and policy changes and requirements for publications and manuals essential to the operation of the communications systems.

C. Special Procurement Requirements

(1) CONUS

(2) Offshore

D. Transportation and Handling Requirements

E. Recovery and Reclamation of C-E Material

9. Training

A. Command and Schooling Status

(1) MOS Courses

(2) Non-MOS Courses

B. CONUS School Student Projections

Course Number; MOS; Quantity; Date

C. Recommended Changes to POI's

D. New Course Requirements

10. Budget and Programing Considerations

A. New Project Requirements

B. Status of Current Projects

C. Projects Completed During Report Period

D. Contractual Support Requirements

11. General Information

A. Test and Evaluation Programs in Progress

B. Test and Evaluation Program Status

C. Doctrine and Policy Change Recommendation

D. Publications and Manuals

E. Other

(2) Area System

(a) Telephone Calls

1. Total for reporting period by precedence
2. Percent change from last period by precedence
3. Grade of service
4. Average holding time
5. Problem analysis
6. Qualitative evaluation statement

(b) Teletypewriter Messages

1. Total for reporting period by precedence
2. Percent change from last period by precedence

Figure C-1 (Cont)

3. Speed of service
4. Problem analysis
5. Qualitative evaluation statement

(c) Data Cards

1. Total for reporting period by precedence
2. Percent change from last period by precedence
3. Speed of service
4. Problem analysis
5. Qualitative evaluation statement

(d) Other

1. FAX
2. Closed circuit TV
3. Messenger/courier

B. Special Systems Problems

(1) System Security
(2) Radio Frequency Interference
(3) System Interface
(4) Allied/Indigenous Considerations

C. Procedural Problems

(1) Doctrinal Changes
(2) Standing Operating Procedure Changes

D. Frequencies

(1) New Requirements
(2) Excess Requirements
(3) Management
(4) Problem Areas

Figure C-1 (Cont)

C-3. C-E Trouble Record (DA FORM 4617-R)

DA Form 4617-R, C-E Trouble Record, will be reproduced locally on 8“ x 10½” paper in accordance with Fig C-2 and C-3. The C-E trouble record should be numbered to enable easy filing and referencing by operators and supervisors. It is prepared by the equipment operator and submitted to the CNCE. The trouble record is prepared as follows and should be kept on file in accordance with unit SOP or AR 340-2.

a. Heading.

(1) DTG-Enter the date-time group showing time of record. Use Zulu time unless otherwise directed.

(2) Record Number-Self-explanatory, chronologically for the current radio day.

b. Blocks.

l-Self-explanatory.

2-Self-explanatory.

3-Restoration priority.

4-Reroute path (if applicable).

5-Identify location of trouble, time out, and estimated time of restoration.

6-Show suspected or actual RFO. Use RFO codes listed on the reverse side of the form (fig C-3).

7-Identify affected equipment and personnel. Use RSC codes (fig C-3).

8-Briefly explain corrective action and indicate any assistance required.

9-Use to amplify any aspect of the trouble situation.

10a-If more than one trouble is encountered, show DTG of first.

10b-Show actual restoration.

10c-Indicate verified RFO.

10d-Show time reported to CNCE(M), CSCE, or other appropriate management element.

c. The classification of the record will be written or stamped prominently at top and bottom of the record.

C-E Trouble Record

FOR USE OF THIS FORM, SEE FM 24 22
PROPONENT AGENCY IS HQ TRADOC

DTG: 131710Z MAY 77

REPORT NUMBER: 12-7

1. STATION REPORTING

CNCE-T
Site 21

2. PERSON MAKING REPORT

a. NAME: Sp5 Leather
b. PROSIGN: RL
c. POSITION: Shift Spvsr

3. RESTORATION PRIORITY: 3C

4. RE-ROUTE PATH: NONE AVAILABLE

5. TROUBLE IDENTIFICATION

a. SYSTEM NUMBER: 21 JI PAA — TIME OUT 1654 ETR 1800
b. CIRCUIT NUMBER: N/A — TIME OUT ETR
c. CIRCUIT GROUP NUMBER — TIME OUT ETR
d. TERMINAL EQUIPMENT CODE — TIME OUT ETR

6. REASON FOR OUTAGE (RFO)

a. INITIAL RFO: AAQ
b. EXPLANATORY REMARKS: ENEMY ACTION DESTROYED ONE(1) TRC-145 AT 1st Bde CP AREA.

7. RESOURCES AFFECTED	a. NOMENCLATURE	b. UNIT	c. QUANTITY	d. RESOURCE CODE
EQUIPMENT	TRC-145	10th S.G. 200 Co	1	646
PERSONNEL	e. GRADE/MOS: 31M	f. UNIT: 11	g. QUANTITY: 3	h. RESOURCE CODE: 463

8. REMEDIAL ACTION TAKEN OR ASSISTANCE REQUIRED

REPLACEMENT UNIT DISPATCHED AT 1716Z

9. REMARKS

10. ACTUAL TIME OF RESTORATION

a. INITIAL TROUBLE REPORT DTG: 131710Z MAY 77
b. DTG OF RESTORATION: 131809Z MAY 77
b. FINAL RFO: AAQ
d. TIME REPORTED: 131815Z MAY 77

DA Form 4617-R
1 JUN 77

Figure C-2. C-E Trouble Record

REASON FOR OUTAGE CODE

Listed below are the most used codes. A more complete listing of RFO codes is found in DCAC 310-55-1, Volume II.

First Character Location of Outage Code

Code Letters	Meaning
A	Distant End User Term
B	TROPO Path Propagation
C	Commercial Leased Facility
D	Distant End
E	Local CNCE(T)
F	Non-Mil US Sta/FAC
G	Nonreporting Mil Sta
H	Intersite Facility
I	Interface US Mil System
J	Intermediate CNCE(T)
K	Military Relay Site
L	Local Satellite Terminal
M	Distant End Sat Terminal
N	Unknown Location
O	Airborne User Term (Radio)
P	Path (Radio)
Q	Satellite
R	Local Rcvr Site (Radio)
S	Complete Local Sta/Fac
T	Local Xmtr Site (Radio)
U	Local User Terminal
V	Commercial-Foreign Sta/FAC
W	Path (Wire/Cable)
X	Interface Allied Mil Sta/Fac
Y	Interface Allied Mil System
Z	Unidentified (Initial Report Only)

Asterisk Code (*) must be explained in paragraph 6b.

Second and Third Characters Cause of Outage Code

Code Letters	Meaning	Code Letters	Meaning	Code Letters	Meaning
AC	Air Conditioning Equip	EU	RF Amplifier	NA	No Contact
AP	Property Damage	EV	Telegraphic Multiplex	NB	No Trouble Found-CWT
AQ	Enemy Action*	EW	VF Multiplex	NC	No Trouble Found-CBT
AW	Weather*	EZ	Transmitter	NJ	Other*
BE	Operator Error*	FC	Frequency Change	NL	Unidentified*
BF	Quality Control Testing	GA	Tropo Scatter System	NP	Commercial Failure*
BJ	Circuit Equalization	GB	VHF Radio System	NQ	User Wiring
BK	Station Movement	GC	Microwave Radio Sys	NR	User Equipment*
BP	Preemption	GD	HF Radio System	NS	CNCE(T) Wiring
BQ	Circuit Coordination	GE	UHF Radio System	NU	Coordination
BW	Control Seizure	GF	SHF Radio System	PA	Power Surge
CN	Crypto Maint-Demand	JA	High Noise Level	PB	Power Dip
CP	Crypto Maint-Prevent	JB	High Signal Level	PC	Power Out-Contam Fuel
CQ	Crypto Reset	JC	Low Signal Level	PE	Power Cable*
EC	Error Detection	JD	Signal Loss	PF	Power Out-Mil Primary*
EE	Signaling Equipment	JE	Manmade Interference	PG	Power Out-Mil Pri & BU*
EF	Antenna	KF	Signal Distortion	PJ	Power Out-Cml Pri&BU*
EH	Combiner	KG	Signal Fade	PK	Power Out-Cml&Mil*
EJ	Converter	KH	Frequency Shift/Drift	PQ	AC Power Supply Equip
EL	Duplexer	KJ	Natural Interference	PR	DC Power Supply Equip
EM	Exciter	LK	Limited Bandwidth	QA	Submarine Cable*
EN	Heat Exchanger	LM	Reduced Channel OP	RA	Landline Cable/Wire*
EP	IF Amplifier	ME	Engineering*	SA	Satellite Degradation*
EQ	Modulator (MODEM)	MM	Modification*	SB	Satellite Failure
ER	Oscillator	MP	Preventive Maint	SC	Satellite Event*
ES	Power Amplifier	MQ	Installation	SD	Satellite Transmitter*
ET	Receiver			SF	Satellite Receiver*
				SH	Satellite Tracking*

RESOURCE STATUS CODE (RSC)

First Character Condition	Second Character Cause	Third Character Operational Impact
1. Activation	1. Telecomm Svc Order	1. Increased Capability
2. Reduced Operations*	2. Equipment Damaged	2. Reduced Cap/Op*
3. Inoperable Facilities	3. Equipment Failure	3. Personnel Required (MOS & NO)*
4. Insufficient Personnel	4. Equipment Destroyed	4. Equipment Required (Type & No)*
5. Deactivation	5. Enemy Action*	5. Movement Required*
6. Insufficient Equipment*	6. Personnel Casualty	6. Restoration Required
7. Improper Equipment	7. Weather	7. Frequencies Required
8. Reduced Service	8. Personnel Error*	8. Frequencies Released
9. Reserve Resources Used	9. Frequency Change*	9. Complete Loss of Service
0. Other*	0. Other*	0. Other*

Asterisk Codes (*) must be explained in paragraph 8.

Figure C-3. Reverse Side of C-E Trouble Record (RFO and RSC Codes)

C-4. Operational Resource Record (DA FORM 4618-R)

a. DA Form 4618-R, Operational Resource Record, will be reproduced locally on 8“ x 10½” paper in accordance with Fig C-4 and C-5. The operational resource record (ORR) is submitted by a communications node and distributed to appropriate C-EMS elements. The purpose of the ORR is to provide an up-to-date status report on the extent of C-E resources committed, the capability available, and remaining available resources for planning and restoration of service purposes.

b. The operational resources record is originated at company level and, after approval by the company commander, is passed to the CNCE(M). At the same time, the record is sent to battalion headquarters through command channels. At battalion headquarters, the record is reviewed and, after approval by the battalion commander, is passed to the CNCE(M) and CSCE at battalion level and, simultaneously, through channels to brigade and group. It is subject to review and approval at these levels and is then forwarded to the next higher CSCE. The senior signal unit puts the information in its data base which is made available to the major command C-E staff. When a signal group is part of a theater army communications command, the information is passed through command channels to TACCOM headquarters and made available to the CSPE of the theater army C-E staff. The records may be consolidated at each successive command level or passed in their original form through channels for review and approval.

c. The ORR record format is shown in figure C-4. Boxes 1 through 4 provide information for a message heading. The main body of the record is divided into two parts; the team status and critical shortages. The composition of the various teams to be recorded on are shown in figure C-5. The alphanumeric code for the team is shown along with the normal authorization by type of signal equipment, power units, vehicle, and personnel. Teams are categorized as committed, available, or incomplete. “Committed” means in use, “available” means operational but uncommitted, and “incomplete” means the team is lacking an essential equipment item or team member and thus has a reduced capability. It is intended that the readiness of a team be a command decision. If, for instance, the commander believes a team can perform with acceptable efficiency with less than the full complement of authorized personnel, the team should be categorized “available,” with the missing key personnel shown under personnel shortages. The incomplete team category should be used when the operational equipment and qualified personnel are not available to the extent that the team is deemed to be incapable of effective performance. The teams are grouped by type of function for easy reference. In box 5, team codes are listed in column A with their status indicated by numbers in columns B, C, and D. Box 6, Critical Shortages, refers to the major equipment items or personnel requirements needed to convert the incomplete teams to an operational status.

Operational Resource Record

FOR USE OF THIS FORM SEE FM 24-22
PROPONENT AGENCY IS HQ TRADOC

DTG	REPORT NUMBER
140001Z MAY 77	14

1. TO: CSCE
10th Sig Bn, 10th Inf Div

2. FROM: CO, FWD COMM CO
10th Sig Bn

3. PRECEDENCE: Priority

4. SECURITY CLASSIFICATION: CONF

5. TEAM STATUS

a. TEAM CODE	b. NO. COMMITTED	c. NO. AVAILABLE	d. NO. INCOMPLETE
RT 145	9	3	
PP 076	3		
MS 029	3		
SC 030	3		
RA 142	6		
RW 049	2		1

6. CRITICAL SHORTAGES *(Refers to incomplete teams and separate resources)*

a. EQUIPMENT

(1) TEAM CODE	(2) NOMENCLATURE	(3) QUANTITY	(4) REMEDIAL ACTION TAKEN
RW 049	AN/GSA-7	1	MAINT-NOA IT PARTS

b. PERSONNEL

(1) TEAM CODE	(2) MOS TITLE	(3) GRADE	(4) QUANTITY	(5) MOS	(6) REMEDIAL ACTION TAKEN
RW 049	RDO OP	E-3	2	05E20	REPLACEMENTS REQUESTED

NAME & TITLE OF PERSON REPORTING: LARRY SIMPSON, CPT, CMDC

SIGNATURE: Larry Simpson

DA Form 4618-R
1 JUN 77

Figure C-4. Operational Resources Record

Codes and Composition of Technical Teams

Team Type	Equipment Nomenclature	Team Code	No. of Per.	Major Signal Components	Vehicle
AUTOMATIC SWITCH	AN TTC-25 (V1)	AS 251	7	AN TTC-25 (300)	2 1 2 T
	AN TTC-25 (V2)	AS 252	7	AN TTC-25 (600)	2 1 2 T
	AN TTC-38 (V1)	AS 381	7	AN TTC-38 (300)	2 1 2 T
	AN TTC-38 (V2)	AS 382	7	AN TTC-38 (600)	2 1 2 T
	AN TTC-41 (V1)	AS 383		SB-3614 TT	5 4 T
	AN TTC-41 (V2)	AS 384		SB-3614 TT	5 4 T
	AN TTC-41 (V3)	AS 385		SB-3614 TT	1 4 T R
CABLE CONSTRUCTION	Spiral 4	CC 027	12	3 Mi WF-8 G,(CX-11230 G)	3 4 T & 2½ T
	Field Wire	CC 017	8	6 Mi WD-1 TT, WF-16 U	3 4 T & 2½ T
MANUAL SWITCH	AN MTC-1	MS 001	3	AN MTC-1 (220)	2-2 1 2 T
	AN MTC-7	MS 007	1	AN MTC-7 (60)	3 4 T
	AN MTC-9	MS 009	9	AN MTC-9 (660)	2 Vans
	AN TTC-35 (V1)	MS 351	1	AN TTC-35 (V1)(50)	1 1 4 T
	AN TTC-35 (V2)	MS 352	2	AN TTC-35 (V2)(100)	1 1 4 T
MULTIPLEXER	AN MCC-3	MU 003	3	1 - AN TCC-8	3 4 T
	AN MCC-6	MU 006	3	2 - AN TCC-4, 1 - AN TCC-7, 1 - AN TCC-50	2 1 2 T
	AN TCC-69	MU 060	3	2 - TD-352	3 4 T
	AN TCC-61	MU 061	3	8 - TD-352	2 1 2 T
	AN TCC-62	MU 062	3	2 - TD-353	2 1 2 T
	AN TCC-65	MU 065	3	4 - TD-660	1 1 4 T
	AN TCC-69	MU 069	3	2 - TD-352	1 1 4 T
	AN TCC-72	MU 072	3	2 - TD-660	1 4 T
	AN TCC-73	MU 073	3	2 - TD-976, 8 - TD-660	2 1 2 T
RADIO REPEATER SET	AN MRC-54	RR 054	3	3 - AN TRC-24	2 1 2 T
	AN MRC-103	RR 103	3	3 - AN/GRC-50	2 1 2 T
	AN TRC-109	RR 109	3	2 - AN GRC-50	3 4 T
	AN TRC-110	RR 110	3	3 - AN GRC-50	2 1 2 T
	AN TRC-111	RR 111	3	1 - AN GRC-147	2 1 2 T
	AN TRC-113	RR 113	3	3 - AN GRC-103	1 4 T
	AN TRC 138	RR 138	3	3 - AN GRC-144	2 1 2 T
	AN TRC-152	RR 152	3	3 - AN GRC-50	2 1 2 T
RADIO TELETYPEWRITER	AN GRC-122	RA 122	4	AN GRC-122	3 4 T
	AN GRC-142	RA 142	3	AN GRC-142	3 4 T
	AN GRC-26D	RA 026	3	AN/GRC-26D	2 1 2 T
RADIO TERMINAL SET	AN MRC-68	RT 068	3	3 - AN GRC-10, 2 - AN TCC-3	3/4 T
	AN MRC-69	RT 069	3	2 - AN/TRC-24, 1 - AN/TCC-7, 1 - AN/TCC-50	2 1 2 T
	AN MRC-73	RT 073	3	1 - AN/TRC-24, 1 - AN TCC-7, 1 - AN TCC-20	2 1 2 T
	AN MRC-102	RT 102	3	2 - AN/GRC-50, 1 - AN TCC-7, 1 - AN/TCC-7, 1 - AN TCC-20	2 1 2 T
	AN TRC-108	RT 108	3	1 - AN GRC-50, 1 - TD 352	3/4 T
	AN MRC-115	RT 115	3	2 - AN GRC-103, 2 - TD 660	1 1 4 T
	AN TRC-117	RT 117	3	2 - AN GRC-50, 2 - TD 352	2 1 2 T
	AN MRC-126	RT 126	3	1 - AN GRC-103, 1 - TD 660	1 1 4 T
	AN MRC-127	RT 127	3	2 - AN GRC-103, 2 - TD 660	1 1 4 T
	AN/TRC-145	RT 145	3	2 - AN/GRC-103, 2 - TD 660	1 1 4 T
	AN/TRC-151	RT 151	3	2 - AN/GRC-50, 2 - TD 660	2 1 2 T
				AN/VRC-49, AN GSA-7	1 4 T
SIGNAL CENTER	AN MGC-9	SC 009	4	2 SB-86 TTY	2 1 2 T
	AN MGC-17	SC 017	4	2 TTY Terminals	3 4 T
	AN MGC-19	SC 019	8	10 TTY Terminals	2 1 2 T
	AN MGC-22	SC 022	8	8 TTY Terminals	5 T
	AN/MGC-23	SC 023	12	16 TTY Relay	5 T
	AN/MSC-29	SC 029	10	12 TTY Terminals	2 1/2 T
	AN/TSC-58	SC 058	10	12 TTY Terminals	2 1/2 T
CNCE	AN/TSC-76	PP 076	3	1162 2 Wire Ckts	3/4 T
	SB-611/MRC	PP 611	4	1162 2 Wire Ckts	3 4 T
	SB-675/MSC	PP 675	4	954 2 Wire Ckts	2 1/2 T
	AN/TSQ-84	PP 084	3	972 4 Wire Ckts	2 1/2 T
	AN/TSQ-85	PP 085	4	4 TD-976	2 1/2 T
TROPO TERMINAL	AN/TRC-112	TS 112	3	1 - AN GRC-143	2-1 1 4 T
	AN TRC-121	TS 121	3	2 - AN GRC-143	2-2 1 2 T

Figure C-5. Reverse of Operational Resources Record (Codes and Composition of Technical Teams)

C-5. Traffic Status Record (DA FORM 4619-R)

a. DA Form 4619-R, Traffic Status Recortd, will be reproduced locally on 8" x 10½" paper in accordance with Fig C-6. The traffic status record is prepared on a periodic basis (usually daily) by the CNCE(M) based on information provided by both the telephone switch and the telecommunications center and is normally sent to the controlling CSCE for traffic engineering.

b. The traffic status record data is used—

(1) To verify previously stated communications requirements.

(2) To react to changes in force structure or the tactical situation.

(3) For optimizing the communications system remaining after damage occurs.

(4) To predict future changes to the system by observing trends.

(5) To justify equipment and personnel needs.

Note: With the introduction of automatic switches, timely and accurate reporting will be essential to the centralized management aspects of reprogramming switches to rebalance or reconstitute degraded portions of the communications system.

c. A sample record is shown in figure C-6 and is explained below.

(1) Boxes 1 through 4 provide information for a message heading.

(2) Box 5 lists the time covered by the record period (use DTG for both "to" and "from").

(3) The record is divided into four principal areas: total voice traffic, voice traffic by trunk group, total message/data traffic relay and terminal, and traffic moved by messenger.

(4) Boxes 6 and 7 are structured to conform with the output of the AN/TTC-38. The data for box 8 can be collected at the relay for manual tape relay operation. Data for boxes 9 and 10 are provided by the telecommunications center record section.

Traffic Status Record

FOR USE OF THIS FORM SEE FM 24 22
PROPONENT AGENCY IS HQ TRADOC

DTG: 170800Z MAY 77

1. TO: CSCE (VI)
VIth Corps

2. FROM: CSCG (PI)
8th Inf Div

3. PRECEDENCE: PRIORITY

4. SECURITY CLASSIFICATION: CONF

5. PERIOD OF REPORT:
FROM: (DTG) 160001Z MAY 77 TO: (DTG) 162400Z MAY 77

6. TOTAL TRAFFIC FOR PERIOD: *(Automatic Switch Data Only)*

	(1) ROUTINE	(2) PRIORITY	(3) IMMEDIATE	(4) FLASH	(5) FLASH OR
a. NARROWBAND-VOICE/SECURE	1680	100	45	20	5
b. NARROWBAND-TT-DATA/SECURE					
c. WIDEBAND	32	14	12	2	1

	TOTAL		ATTEMPTS	COMPLETIONS
d. CALLS CLASSMARKED FOR MANUAL SERVICE	15	h. OPERATOR CALLS	45	39
e. INTERCEPT CALLS	26	i. INFORMATION CALLS	82	82
f. RECALLS	14	j. PROGRESSIVE CONFERENCE CALLS	5	5
g. AVERAGE HOLDING TIME	2M	k. PRE-PROGRAMMED CONFERENCE CALLS	23	23

7. TOTAL CALLS BY TRUNK GROUP: ☐ AUTOMATIC SWITCH ☒ MANUAL SWITCH (SELECTIVE PEG COUNTS)

a. TRK. GRP. NO.	b. INCOMING	c. OUTGOING PRIMARY	c. OUTGOING ALTERNATE	d. PREEMPTION ATTEMPT	d. PREEMPTION COMPLETION	e. CALLS LOST PRIMARY ALTERNATE	f. MAINT.	g. LOCKOUT
033	632	764	748	4	4	2 0	1	1

8. TOTAL MESSAGE/CARDS BY TRUNK GROUP (RELAY)

a. TRUNK GROUP #	b. OUTGOING	c. INCOMING	d. BACKLOGGED
006	25	32	0

9. TOTAL MESSAGE/CARDS (TERMINAL)

FUNCTION	TYPE	1 ROUTINE	2 PRIORITY	3 IMMED.	4 FLASH
a. TRANSMITTED	MSG/CARD	32/9	14/4	8/0	1/0
b. RECEIVED	MSG/CARD	66/6	19/2	9/1	2/0
c. BACKLOGGED	MSG/CARD	0/0	0/0	0/0	0/0
d. HANDLING TIME	MSG/CARD	30/19	20/7	12/1	6/0
e. UNACCOUNTED	MSG/CARD	0/0	0/0	0/0	0/0

10. MESSENGER SERVICE TOTALS: a. SCHEDULED: (1) AIR: 8 (2) MOTOR: 6 b. SPECIAL: (1) AIR: 1 (2) MOTOR: 3

DA Form 4619-R
1 JUN 77

Figure C-6. Traffic Status Record

C-6. Special Communications Authorization Request (DA FORM 4620-R)

a. DA Form 4620R, Special Communications Authorization Request, will be reproduced locally on 8“ x 10½" paper in accordance with Fig C-7. A special communications authorization request (SCAR) is submitted when service over and above that prescribed in doctrine/SOP is required by a user. The SCAR should be submitted to the appropriate CNCE(M) which will either provide the service or will forward the request to higher headquarters when it does not have the authority to approve the request.

b. The SCAR consists of two principal parts: identification and justification of the user’s requirement, and evaluation and decision by the C-EMS elements involved. Boxes 1 through 4 provide information for a message heading.

c. The subscriber information called for in boxes 5a through 5f is required to provide the requested service; the information in box 5g is critical to the evaluation and approval processes. The justification should clearly demonstrate why the service prescribed by doctrinal policy does not meet the user operational requirements. The assessment of the communications request (box 6) is prepared by the approval of the supporting signal unit commander. It requires consideration of the resources needed and available, contingency plans, unit priorities, planned force structure changes, and an estimate of possible system implication beyond the local nodal network.

SPECIAL C-E AUTHORIZATION REQUEST

FOR USE OF THIS FORM, SEE FM 24-22
PROPONENT AGENCY IS HQ, TRADOC

DTG: 131210Z MAY 77

1. TO: CO, Co A
8th Sig Bn

2. FROM: S3 1st Bde
8th Inf Div

3. PRECEDENCE: Immediate

4. SECURITY CLASSIFICATION: CONFIDENTIAL

5. SUBSCRIBER INFORMATION: *(To Be Completed by Requester)*

a. ORGANIZATION: Hq 1st Bde, 8th Inf Div

b. LOCATION: *(Coordinates)* LG 1599488

c. DATE OF REQUEST: 12 MAY 77

d. DATE NEW SERVICE REQUIRED: 18 MAY 77

e. CURRENT COMMUNICATION SERVICE *(In Addition to Organic TOE)* PROVIDED:

(1) TRUNKS: VOICE 3 TELETYPEWRITER 1 DATA 0

(2) SUBSCRIBER: LOCAL LINES 24 EXTENSIONS 8

(3) PREFERENTIAL SERVICES: SPECIFY N/A

(4) DEDICATED CIRCUITS: 3

(5) RWI CALL SIGN RED ROOSTER 2

(6) SPECIAL TERMINAL EQUIPMENT AUTHORIZED ABOVE DOCTRINE: N/A

f. ADDITIONAL COMMUNICATION SERVICE REQUESTED:

ONE DEDICATED VOICE CIRCUIT FOR TASE (S2-3 A1e)

g. JUSTIFICATION: THE SERVICE IS NEEDED TO SUPPORT TRAFFIC LOAD GENERATED BY THE ATTACHED TASE TEAM FROM 18MAY 77 TO 26 MAY 1977

6. ASSESSMENT OF SCAR *(For Nodal Authority Use)*

a. ADDITIONAL RESOURCES OR FACILITIES REQUIRED:

b. AVAILABILITY OF REQUIRED RESOURCES/FACILITIES:

NONE AVAILABLE, SERVICE MUST USE EXISTING RESOURCES

c. ADDITIONAL CONSIDERATIONS: 1 COMMON USER VOICE CHANNEL WOULD BE PRE-EMPTED IF THIS REQUEST IS IMPLEMENTED.

d. ACTION RECOMMENDED: PRE-EMPTING A CU CHANNEL WOULD DEGRADE OVER ALL SYSTEM, RECOMMEND ASSIGNMENT OF A "PRIORITY" CLASSMARK TO THE TASE TEAM FOR REQUIRED PERIOD.

e. APPROVAL/~~DISAPPROVAL~~: APPROVED FOR ACTION OUTLINED IN ITEM 6 D.

SIGNATURE: George Brown
Capt, Cmdg

DA Form 4620-R
1 JUN 77

Figure C-7. Special Communications Authorization Request

C-7. Telecommunications Service Order (DA FORM 4621-R)

a. DA Form 4621-R, Telecommunications Service Order, will be reproduced locally on 8“ x 10½” paper in accordance with Fig C-8. The telecommunications service order (TSO) is a technical directive that is issued to a subordinate facility or operating command (e.g., elements of the CSCE at any level, the C-E staff of a major command, the unit staff of a signal unit, or the CNCE of a node). All TSO’s in a tactical situation will be classified CONFIDENTIAL or higher.

b. The purpose of the TSO is to direct the performance of an individual task or groups of tasks for the implementation of signal orders, signal annexes to command operations orders, restoration of service in response to trouble reports, approved special communications authorization requests, or SOP doctrinal communications entitlements. The TSO form is structured to direct the installation and operation of all types of communications systems under a wide variety of situations. It is designed to be transmitted by secure electronic means from higher authority to the operating signal units.

c. The informational content of each block on the TSO form is described below. A sample format for an electrically transmitted TSO is shown in figure C-9.

Box 1. Enter the unit name and address of the C-EMS facility which directs the action ordered by the TSO. Include site designator if required.

Box 2. Enter the unit name and address of the C-EMS facility to which the TSO is directed for action. Routing designators will be added when the TSO is to be sent over common-user facilities. Include site designator if required.

Box 3. Enter the unit name and address of the C-EMS facility to which “information only” copies of the TSO are to be sent. Include site designator if required.

Box 4. Designate the security classification for the information in the TSO: Unclassified, Confidential, Secret, Top Secret.

Box 5. Designate the TSO precedence for transmission: Routine, Priority, Immediate, Flash, Flash Override.

Box 6. Identify the TSO number and DTG of issue.

Box 7. Identify the source document from which the implementation instructions contained in the TSO were derived. The source document may be a signal order, another TSO, other technical directives, or verbal orders from the commander.

(Continues on page C-22)

Telecommunications Service Order

FOR USE OF THIS FORM SEE FM 24 22
PROPONENT AGENCY IS HQ TRADOC

1. TO: CNCE
2D Inf Bde

2. FROM: CSCE
52D Mech Div

3. INFO: C-E OFF (OPS)
2D Inf Bde

4. SECURITY CLASSIFICATION: CONFIDENTIAL

5. PRECEDENCE: ROUTINE

6. TSO NUMBER: 3-24

DTG: 200830Z MAY 77

7. REFERENCE

a. HEADQUARTERS: OPORD 12/52D MECH DIV

b. DTG: 190800Z MAY 77

c. SUBJECT: Bde Jump

8. SYSTEM/CIRCUIT INFORMATION:

a. ACTION REQUIRED: ☐ ACTIVATE ☐ DEACTIVATE ☐ REROUTE ☑ MODIFY

b. REQUIRED COMPLETION DTG: 220600Z MAY 77

c. RESTORATION PRIORITY: 9C

d. STATION/FACILITY DESIGNATOR: KN

e. SYSTEM/CIRCUIT DESIGNATOR: KN KF PAA

f. ROUTING INSTRUCTIONS: N/A

g. USER IDENTIFICATION: 2D Bde

h. INTERFACE: N/A

i. CONDITIONING: N/A

j. WIRE/CABLE (1) TYPE: N/A (2) TERM A LOC: N/A (3) TERM B LOC: N/A

k. RADIO SYSTEMS:

(1) TERM A LOC: SAME

(a) ANTENNA: AZ 85° HT 45 FT PLRZ HOR (b) FREQUENCY: S SAME R SAME (c) CALL SIGN: SAME

(2) TERM B LOC: GB 325588

(a) ANTENNA: AZ 185° HT 45 FT PLRZ HOR (b) FREQUENCY: S SAME R SAME (c) CALL SIGN: SAME

(3) RELAY — LOC — CALL SIGN —

(a) ANT AZ — HT — PLRZ — FREQ S — R —

(b) ANT AZ — HT — PLRZ — FREQ S — R —

9. EQUIPMENT INFORMATION:

a. ACTION REQUIRED: ☐ INSTALL ☐ REMOVE ☑ MODIFY ☐ REPAIR REPLACE
☑ OTHER: RELOCATE

b. TYPE/MODEL NUMBER	c. QUANTITY	d. LOCATION
TRC-145	1	GB 325588

10. REMARKS: *(Use back of form if necessary)*

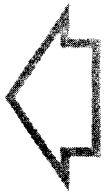
DTG COMPLETED AND REPORTED: 220510Z MAY 77 / 220530Z MAY 77

PERSON VERIFYING COMPLETION: B Smith

DA Form 4621-R
1 JUN 77

Figure C-8. Telecommunications Service Order

(Continued from page C-20)



Box 8A. Check off the type of action which the TSO directs. The action checked will be transmitted.

Box 8B. Enter the DTG which is the deadline for completing the action.

Box 8C. Enter the restoration priority for the action desired.

Box 8D. Enter the designator of the station or facility affected by the TSO.

Box 8E. Using the standard numbering procedures, enter the designator of the system or circuit affected by the TSO.

Box 8F. Enter the routing instructions applicable to the action directed. This will include any patching instructions.

Box 8G. Identify the using organization if the system/circuit is specifically assigned.

Box 8H. Identify interface requirements such as with cable or commercial systems.

Box 8I. Enter any types of conditioning equipment required.

Box 8J. Enter the (1) type of wire or cable directed, (2) unit name, and/or (3) coordinates of terminal of wire/cable system/circuit.

Box 8K. These entries are appropriate to the multichannel communications systems. A system or link will require entries in (1) and (2) and may require multiple entries at (3) corresponding to the number of relays required. The entries in items (1) and (2) are coordinates describing the location of terminal A and/or terminal B; the antenna azimuth (AZ), height (HT), and polarization (PLRZ); and send (S) and receive (R) frequencies and the station call sign. For each of the relays (3), enter the relay site number, coordinates of the location, and the call sign of the relay station. For each leg, the send (S) and receive (R) frequency will be identified along with the antenna azimuth (AZ), height (HT), and polarization (PLRZ) on that leg.

Box 9A. Check off the applicable type of equipment action. The action will be transmitted together with—

Box 9B–equipment type/model identification code (TD-660, AN/TRC-138, etc.),

Box 9C—quantity of each type, and

Box 9D—location at which the equipment action is required.

Box 10 will contain additional information amplifying instructions as appropriate (use back of form if necessary). The block indicating completion and reporting of the action will be completed and the verification block signed.

1. CSCE, 52D MECH DIV
2. CNCE (KN), 2D SIG BDE
3. C-E OFF, 2D BDE
4. CONFIDENTIAL (Listed for training only—message is unclassified)
5. Routine
6. 3-24/200830Z MAY 76
7. A-OPORD 12/52D MECH DIV
   B-190800Z MAY 76
   C-BDE JUMP
8. A-MODIFY
   B-220600Z MAY 76
   C-3C
   D-KN
   E-SYSTEM KNKFPAA
   F-NA
   G-2D BDE
   H-NA
   I-NA
   J-NA
   K-(1) NC
   (A) AZ 05/HT 45/PLRZ H
   (B) NC
   (C) NC
   (2) EB325588
   (A) AZ 185/HT 45/PLRZ H
   (B) NC
   (C) NC
   (3) NA
   (A) NA
   (B) NA
9. A-OTHER/RELOCATE
   B-AN/TRC-145
   C-1
   D-EB325588
10. MULTICHANNEL SYSTEM WILL CONTINUE UNDER OP CONT OF 2D BDE
    (NOTE: Item 10 may be expanded as needed.)

Figure C-9. Message format for electrically transmitted TSO

C-8. Communications System Document Change Order (DA FORM 4622-R)

a. DA Form 4622-R, Communications System Document Change Order, will be reproduced locally on 8“ x 10½” paper in accordance with Fig C-10. The communications system document change order is prepared and issued by a C-E staff section, a signal unit staff, or a CSCE or CNCE(M). Its purpose is to disseminate changes to any record document to appropriate subordinate units and C-EMS facilities. The change order becomes a part of the basic document file and is retained for as long as the basic file.

b. The change order is issued as a result of changes to the C-E annex of a command operations order to the C-E operations order of a signal unit; to command or unit SOP, and changes to any technical directive where the change is minor and does not require reissue of the complete document. The change is particularly useful for making minor modifications on circuit, traffic, and other diagrams.

c. Complete the change order (fig C-10) as follows:

Box 1. Identify the C-EMS element that is issuing the change order.

Box 2. Enter the same unit addresses that were designated as action addresses on the document being changed.

Box 3. Enter the same unit addresses that were designated as information addresses on the document being changed.

Box 4. Enter the security classification of the information being transmitted by the communications system document change order.

Box 5. Enter the precedence required by the information contained in the communications system document change order.

Box 6. Communications system document change orders will be serially numbered and this box will contain an entry that will identify the change order.

Box 7. Enter the DTG at which the change is to be made effective.

Box 8. Completely identify the basic communications system document that is to be changed by the change order.

Box 9. Entries here will include a reference locating the part of the document to be changed as well as the actual change. Block A provides space for citing the part of the document to be deleted and block B provides space for additions to the document.

C-E System Document Change Order

FOR USE OF THIS FORM SEE FM 24 22
PROPONENT AGENCY IS HQ TRADOC

DTG: 161430Z MAY 77

1. TO: OIC, FASC (21)
OIC, FASC (22)
OIC, FASC (23)

FROM: CSCE
10th Sig BN

3. INFO: OIC, 10th Inf DISCOM
ATTN: C-E

4. SECURITY CLASSIFICATION: CONF

5. PRECEDENCE: ROUTINE

6. CHANGE ORDER NUMBER: 14-18

7. EFFECTIVE DTG OF CHANGE: UPON RECEIPT

8. REFERENCE DOCUMENT:

a. TITLE	b. NUMBER	c. DTG
10th Inf Div TELEPHONE TRAFFIC DIAGRAM	APP 4 (C-E) ANNEX H to OPORD 78	10 MAY 77 EFFECTIVE 100900Z MAY 77

9. NARRATIVE DESCRIPTION OF CHANGE:

a. DELETION: NONE

b. ADDITION: ADD ONE(1) COMMON USER TRUNK CIRCUIT FROM DISCOM (A6) to EACH FASC

AUTHORIZED BY: NAME, TITLE: POLL, LTC, C-E

SIGNATURE: JR Poll

DA Form 4622-R
1 JUN 77

Figure C-10. Communications System Document Change Order

C-9. Master Station Log

a. The master station log (fig C-11) file is maintained at each facility and is a chronological history of all significant events. Shift supervisors jointly review the log at change of shift for completeness and accuracy of the entries. The facility supervisor may review the form and sign it to indicate acceptability prior to filing.

b. The ACTION/EVENT column is used to—

(1) Briefly describe the event.

(2) Record shift changes including the names of personnel coming on duty.

(3) Record the status of circuits at change of shift. This insures that shift supervisors are aware of the status of any circuit troubles or outages and the remedial actions taken or required.

c. For entries not directly related to circuits, leave the CHANNEL OR CIRCUIT column blank and enter information (e.g., generator failure, staff visit, etc.) in the ACTION/EVENT column.

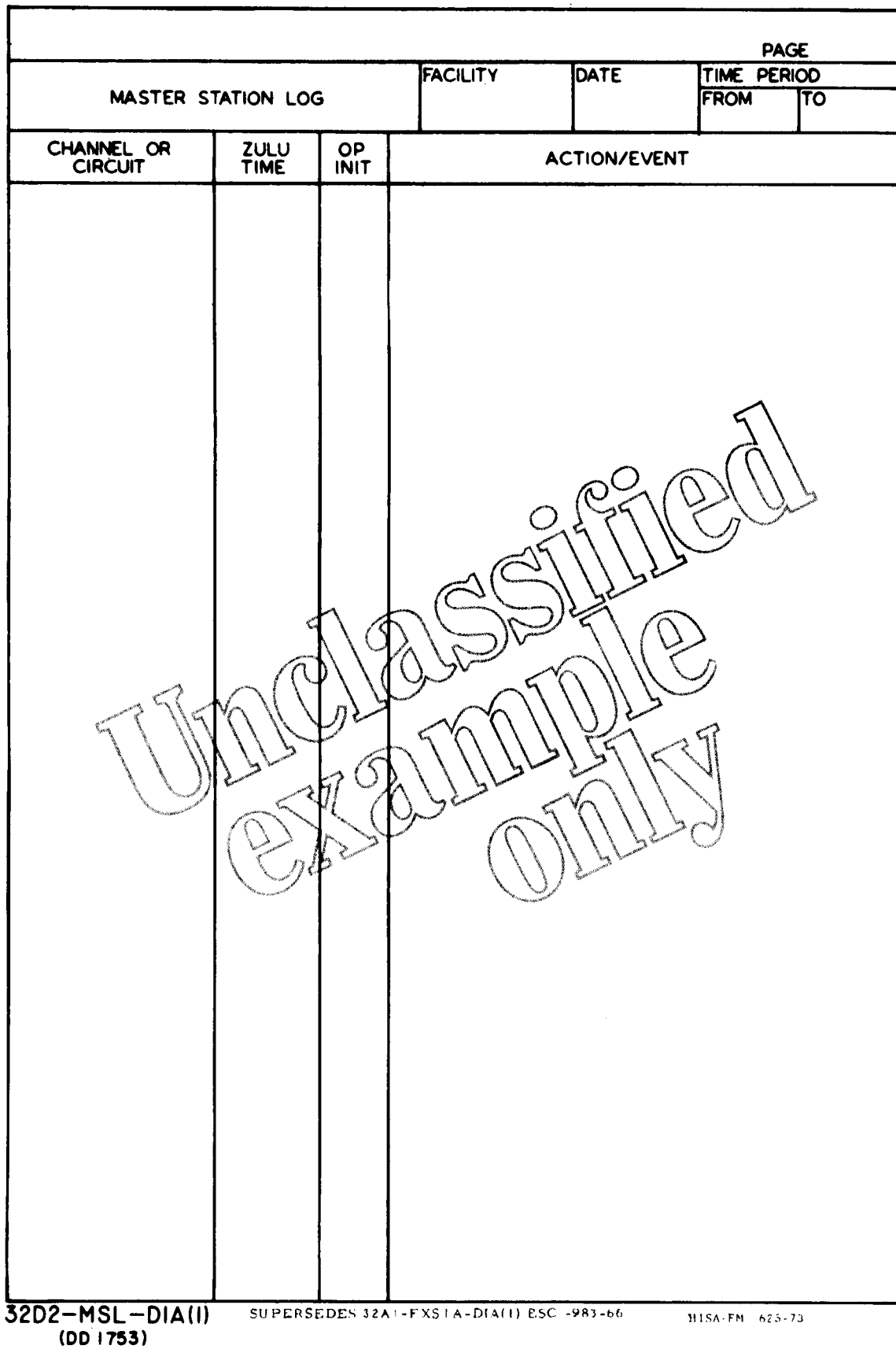


Figure C-11. Master Station Log (DD Form 1753)

C-10. System and Circuit Status Record (DA FORM 4623-R)

a. DA Form 4623-R, System and Circuit Status Record, (cards 1 and 2, front and back) will be reproduced locally on 8“ x 10” card stock paper in accordance with Fig C-12, C-13 and C-14. The system and circuit status record is maintained by circuit controllers in the CNCE(T). It provides detailed, current-status information on all terminating and patched-through systems and circuits. The record is designed to contain the information required on both systems and circuits as well as groups of circuits.

Note: This record and the system and circuit status record-system channel allocation (covered in the next paragraph) are temporary files maintained at the CNCE(T) during the time that each circuit is active. The information entered on the records is obtained from TSO's received by the CNCE(T) and from the results of testing and monitoring by the CNCE(T). The term "system" as used here denotes a radio multichannel or cable link between two communication nodes.

b. Front of status record, card 1 (fig C-12).

Box 1. Enter the number that will identify the system or circuit in accordance with the prescribed system/circuit numbering system.

Box 2. This box will contain two entries for both systems and circuits. These two entries will designate the terminal nodes of the system/circuit. The node entered first is to be the controlling node.

Box 3. For system records, identify the type of system; e.g., radio, wire, cable. For circuit records, identify the communications node utilizing the circuit; e.g., voice, TTY, voice/TTY, data, fax, etc.

Box 4. Identify the signal unit at which the controlling CSCE is assigned.

Box 5. Enter the restoration priority in accordance with prescribed priority procedures.

Box 6. Identify the authority, technical service order, VOCO, other/directives, and the DTG authorizing the activation of the system/circuit.

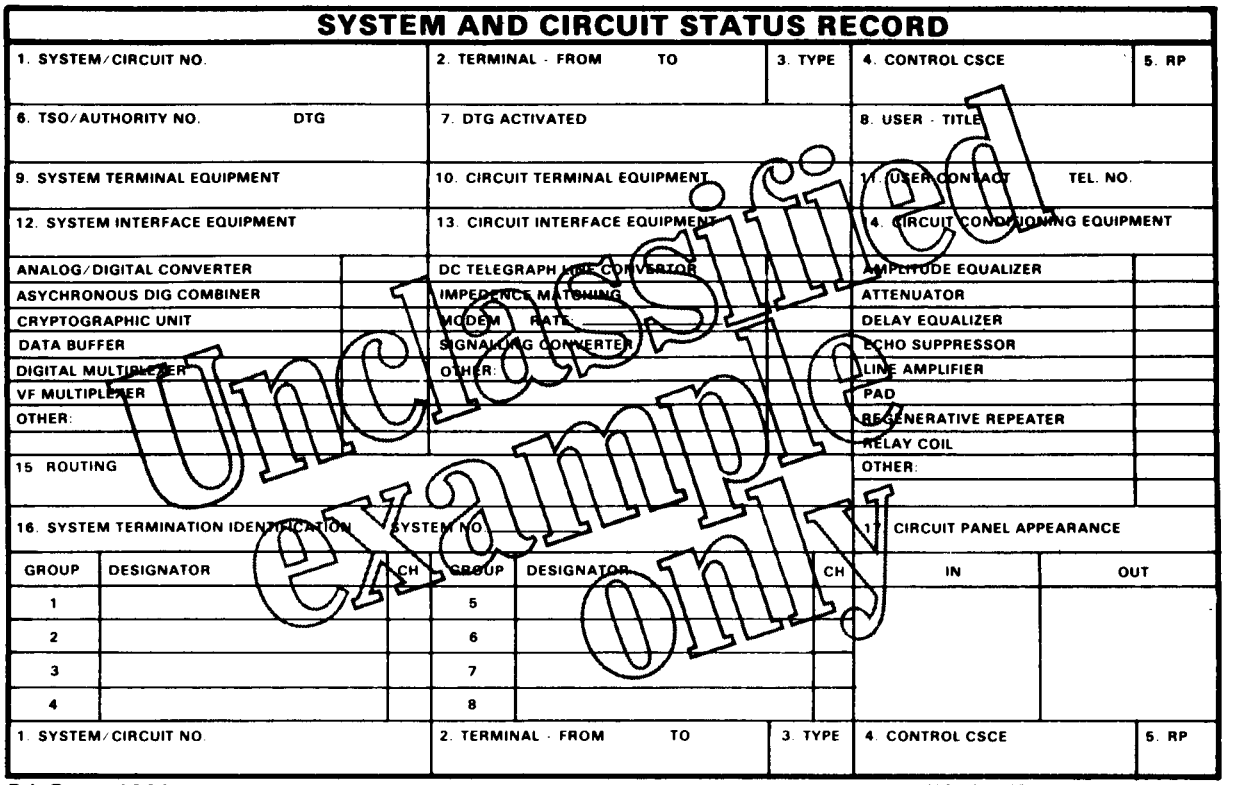
Box 7. Identify the DTG on which the system/circuit was activated.

Box 8. For system records, this box will contain an entry only when the system goes to a single user. The entry will identify the user. The box will be left blank when the system serves multiple users. For circuit records, this entry will identify either the user to whom the circuit is assigned or the terminating signal facility.

Box 9. Identify the transmission equipment, video patch equipment (as appropriate), and multiplexer which is associated with the system at the node. This entry will be completed for both system and circuit records.

Box 10. Identify the type of switchboards, teletypewriter relay, other equipment (instruments), or communications facilities which utilize the circuit. For system records, this box will be left blank unless all the circuits in the entire system are terminated in the same type equipment.

Box 11. Identify the activity responsible for the equipment/facilities shown in box 10 together with the telephone number at which they can be contacted.



SYSTEM AND CIRCUIT STATUS RECORD

1. SYSTEM/CIRCUIT NO.	2. TERMINAL - FROM TO	3. TYPE	4. CONTROL CSCE	5. RP
6. TSO/AUTHORITY NO. DTG	7. DTG ACTIVATED		8. USER - TITLE	
9. SYSTEM TERMINAL EQUIPMENT	10. CIRCUIT TERMINAL EQUIPMENT		11. USER CONTACT TEL. NO.	
12. SYSTEM INTERFACE EQUIPMENT	13. CIRCUIT INTERFACE EQUIPMENT		14. CIRCUIT CONDITIONING EQUIPMENT	

ANALOG/DIGITAL CONVERTER		DC TELEGRAPH LINE CONVERTOR		AMPLITUDE EQUALIZER	
ASYCHRONOUS DIG COMBINER		IMPEDENCE MATCHING		ATTENUATOR	
CRYPTOGRAPHIC UNIT		MODEM RATE:		DELAY EQUALIZER	
DATA BUFFER		SIGNALING CONVERTER		ECHO SUPPRESSOR	
DIGITAL MULTIPLEXER		OTHER:		LINE AMPLIFIER	
VF MULTIPLEXER				PAD	
OTHER:				REGENERATIVE REPEATER	
				RELAY COIL	
15. ROUTING				OTHER:	

16. SYSTEM TERMINATION IDENTIFICATION SYSTEM NO.						17. CIRCUIT PANEL APPEARANCE	
GROUP	DESIGNATOR	CH	GROUP	DESIGNATOR	CH	IN	OUT
1			5				
2			6				
3			7				
4			8				

1. SYSTEM/CIRCUIT NO.	2. TERMINAL - FROM TO	3. TYPE	4. CONTROL CSCE	5. RP

DA Form 4623-R
1 JUN 77

INSTRUCTIONS FOR USE OF THIS FORM ARE IN APP B, FM 24-22

Figure C-12. Front of System and Circuit Status Record, Card 1

Box 12. For system records, identify the type of equipment. If multiple entries would be required for any type of item, the presence of the item will be indicated by a checkmark. For circuit records, identify the type equipment used on that circuit at that node.

Box 13. For system records, the boxes will not be used. For circuit records, identify the type equipment used on that circuit at that node.

Box 14. For system records, the boxes will not be used. For circuit records, identify the type equipment used on that particular circuit at the node designated.

Box 15. Identify routing of system, circuits, and/or groups as appropriate. System routing identifies multichannel sites, as appropriate.

Box 16. For system records, the cable designation for each 12/24-channel group (26 per cable) will be identified. The column labled CH will show the number of channels in the group. For circuit records, the group and channel that bring the circuit to the CNCE will be identified. If the circuit is terminated at the node, only one entry is shown. If the circuit is patched through the node, then two entries will be required. The system number will be shown on the heading line and is a cross reference to system channel allocation shown on card 2. For circuit groups patched through the node, two entries will be required showing the groups and the number of channels utilized.

Box 17. Indicate the locations on the patch panel where the circuit is brought IN from the system terminal equipment and is connected OUT to circuit terminal equipment or to a group designated in box 16 for through circuit group patches. Individual circuit entries must be shown for group patches.

c. Rear of status record, card 1 (fig C-13). The entries on this side of the record card are used for system/circuit outages. If the entire system goes down, this outage is recorded on the system record card. If only a single channel goes out, the outage is recorded on the circuit record card.

Box 18. Fill out as follows:

Block A. DTG OUT. Identify the DTG at which the system/circuit was discovered as being out.

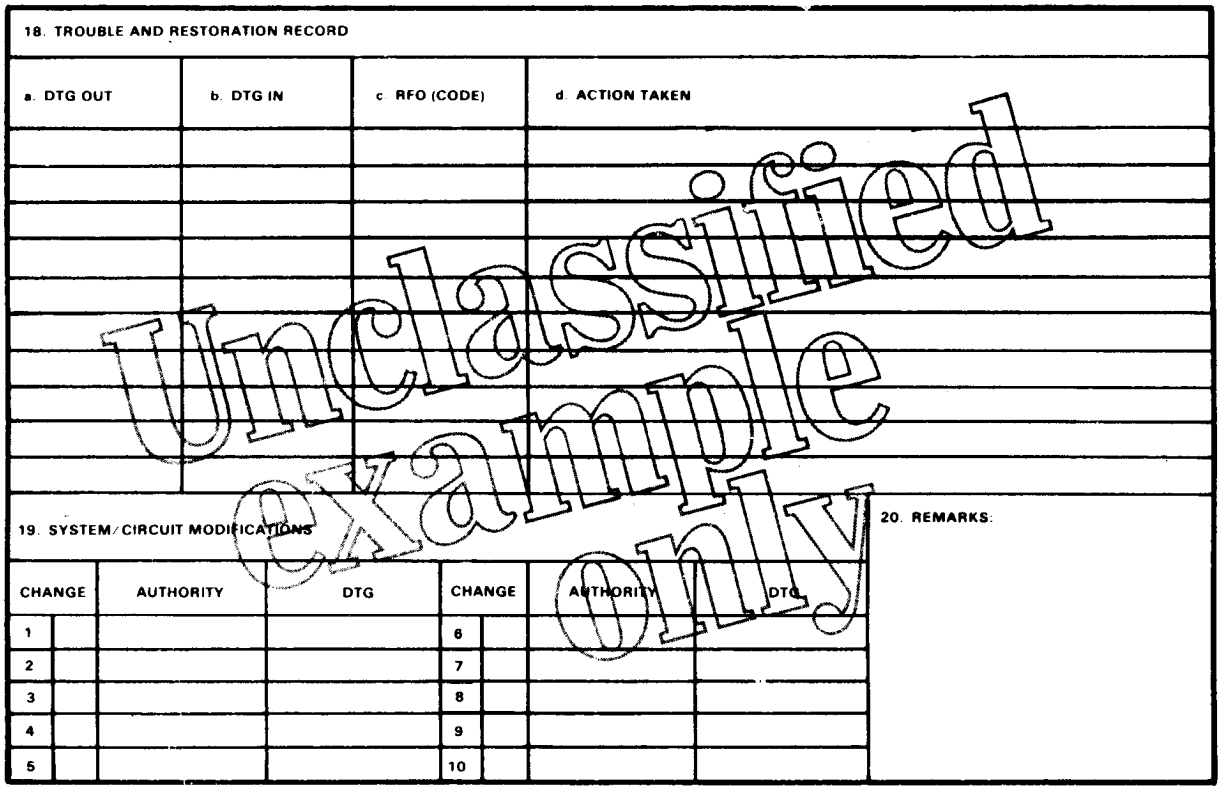
Block B. DTG IN. Identify the DTG at which the system/circuit was restored for service to the user.

Block C. RFO. Identify the reason for the system/circuit outage. The entries will use the same RFO codes that are used with the trouble report.

Block D. ACTION TAKEN. Describe how the system/circuit trouble was corrected or how the restoration was effected. Examples of these entries would be: transmit frequency changed to eliminate RFI, maintenance personnel replaced module in mux, antenna repaired/replaced, new cable laid to replace destroyed cable from mux to xmtr,

Box 19. This section will be used to record implementation of system/circuit modifications. The entries in the system and circuit status record cards will be made in pencil so that when minor changes occur, the new information can be used to record the box number(s) which were changed, authority will list the TSO number and issuing headquarters and the DTG of the TSO or other order directing the system/circuit modification.

Box 20. This section will be used to record any other pertinent information not shown elsewhere on the card or for amplification of any entries on the record.



18. TROUBLE AND RESTORATION RECORD

a. DTG OUT	b. DTG IN	c. RFO (CODE)	d. ACTION TAKEN

19. SYSTEM/CIRCUIT MODIFICATIONS

CHANGE		AUTHORITY	DTG	CHANGE		AUTHORITY	DTG
1				6			
2				7			
3				8			
4				9			
5				10			

20. REMARKS:

DA FORM 4623-R, 1 Jun 77

Figure C-13. Rear of System and Circuit Status Record, Card 1

C-11. System and Circuit Status Record-System Channel Allocation (Card 2, Front and Back)

a. Both the system allocations and the restoration priority are recorded on this card (fig C-14). One card can be used for 48 channels in increments of 12-channel groups. If a system has 96 channels, two cards are required. This record is completed and filed with the system and circuit status record as explained in the note in the preceding paragraph.

b. Boxes 1 through 6. The heading information is printed at the top of one side and the bottom on the other side to allow for use in either a box or flip type file container. The information in the heading is the same as on card one with the addition of an entry, box 6, identifying the number of 12-channel groups in the system.

c. The entry under "group" will be made to designate the 12-channel group number.

d. The circuit number will be entered on the line opposite the allocated channel and the restoration priority for the individual circuits will be entered on the appropriate line.

1. SYSTEM NO.	2. TERMINAL FROM TO	3. TYPE	4. CONTROLLING CSCE	5. RP	6. GROUP

GROUP	CHAN	CIRCUIT NUMBER	RP	GROUP	CHAN	CIRCUIT NUMBER	RP
	1				1		
	2				2		
	3				3		
	4				4		
	5				5		
	6				6		
	7				7		
	8				8		
	9				9		
	10				10		
	11				11		
	12				12		

SYSTEM AND CIRCUIT STATUS RECORD - SYSTEM CHANNEL ALLOCATION

SYSTEM AND CIRCUIT STATUS RECORD - SYSTEM CHANNEL ALLOCATION

GROUP	CHAN	CIRCUIT NUMBER	RP	GROUP	CHAN	CIRCUIT NUMBER	RP
	1				1		
	2				2		
	3				3		
	4				4		
	5				5		
	6				6		
	7				7		
	8				8		
	9				9		
	10				10		
	11				11		
	12				12		

1. SYSTEM NO.	2. TERMINAL FROM TO	3. TYPE	4. CONTROLLING CSCE	5. RP	6. GROUP

Figure C-14. System and Circuit Status Record, Card 2, Front and Back

C-12. Circuit Routing List

a. The circuit routing list (fig C-15) is used to provide information for tandem connections and to serve as the basis of instructions to operating units for patching and terminations. The list has the same status as the circuit diagram. The senior signal unit CSCE, upon receipt of the chart, places the information in the automatic database at the CSCE and sends to its appropriate subordinate units that portion(s) of the list for which installation is being assigned. Instructions to implement the list will be sent by the senior signal unit to its subordinate units as a technical service order or other directive.

b. The list provides the CNCE with information regarding the originating and terminating points, the type of service provided, the use of the circuit, and the circuit within the group.

Column 1 of the circuit routing chart numerically lists each channel of the system using two digits (e.g., 01, 02, 03; 13-24; 25-36; etc.).

Column 2 contains the circuit designator based on information from appendix B.

Column 3 contains the priority designator based on information from appendix B.

Column 4 indicates the circuit type taken from appendix B.

Column 5 indicates the specific origin of circuit; e.g., 52d Div S2, III Corps G3, CSPE, etc. A switch may be designated by PR-SL number.

Columns 6 through 9 list the system(s) through which the circuit is patched. Where necessary, more than four systems may be listed. The first entry will be the point of origin and the last entry will be the point of termination. The channel number of the system carrying the circuit is indicated by a two-digit number affixed at the end of the system designator.

Column 10 indicates the settings for the equipment “2-wire/4-wire” and “ringer” (signaling mode) switches. For example, for channel 04 of figure C-15, column 10 (labeled CHAN SETTING) has 4W OFF/2W OFF indicated. Settings on the left of the slash mark (/) are to be used by the controlling terminal (term A), while the settings on the right of the slash mark are for the other end (term B). In the example, terminal 21 will set the equipment’s (e.g., CV-1548) 2-wire/4-wire switch to 4W and the signaling mode switch (on panel 18A3, channel 6) to the OFF position. Terminal J1 will set its equipment 2W/4W switch to 2W and its signaling mode switch to OFF.

Note: The word ON in column 10 refers to "ringer *on"* (on some equipment) and to the “AC” position of the signaling mode switch of the CV-1548.

Column 11 indicates the specific termination point of the circuit; e.g., S3, CO, TCC, etc.

Column 12 indicates the system designator which identifies the CRC. It also establishes the system priority, which will be the priority of the highest priority circuit excluding the engineering/control channel.

Circuit Routing List

CH	CIRCUIT	PR	TY	FROM	SYS 1	SYS 2	SYS 3	SYS 4	CHANNEL SETTING	TO
01	421J161	3C	CU	9221	21J1PAA-01				4W OFF/4W OFF	8765
02	10123ZZ	3C	SU	EW	0121PAC-02	21J1PAA-02	23J1CAA-01		4W OFF/4W OFF	EW
03	622J133	4B	SU	S3	2122PAC-01	21J1PAA-03			4W OFF/2W OFF	G3
04	G01J14C	3C	TT	TCC	0121PAA-01	21J1PAA-04			4W OFF/2W ON	MR
05	322J121	4A	CU	9222	2122PAC-02	21J1PAA-05			4W OFF/4W OFF	8765
06	B22J18E	3A	SC	Data	2122PAC-06	21J1PAA-06			4W OFF/4W OFF	TADS
07	421J162	3C	CU	9221	21J1PAA-07				4W OFF/4W OFF	8765
08	G21J11C	3B	TT	MR	21J1PAA-08				4W OFF/4W OFF	MR
09	82123GG	4A	LL	9221	21J1PAA-09	23J1CAA-02			4W OFF/4W OFF	SASP
10	102J1HH	3C	SU	CBRE	0102PAA-01	0122MAA-01	2122PAC-08	21J1PAA-10	4W OFF/2W ON	CBRE
11										
12	121J1CC	1A	SU	CNCE	21J1PA-12				2W ON/2W ON	CNCE

System 21J1PAA
Priority 3A
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Figure C-15. Circuit Routing List