



DEFENSE INFORMATION SYSTEMS AGENCY

701 S. COURT HOUSE ROAD
ARLINGTON, VA 22204-2199

DISA CIRCULAR 300-85-1

6 April 1993

REPORTS

Reporting of Facility and Link Data For The Defense Communications System (DCS)

1. Purpose. This Circular prescribes policy for the identification of the components of the DCS. In addition, provides procedures for the preparation and submission of initial reports and subsequent change reports required to maintain data accuracy and currency of the Facility/Link (Fac/Link) report.
2. Applicability. This Circular applies to all DoD departments, agencies, commands, and offices responsible for operating and/or maintaining the DCS.
3. Scope. The content and format of this Circular are designed to assist personnel in rapidly preparing reports required under Fac/Link.
4. References.
 - a. DOD 5105.19, Subject: Defense Information System Agency (DISA), June 25, 1991.
 - b. DISAC 310-65-1, Circuit and Trunk File Data Elements and Codes Manual of the Defense Communication System (DCS), February 1986.
5. Circular Maintenance. Each DISA Area is authorized to publish supplemental Instructions to this Circular pertaining to its assigned DCS area with prior approval of Headquarters, DISA. A copy of the proposed supplemental Instructions will be submitted for approval prior to publication. Additional copies of this Circular may be reproduced locally.

FOR THE DIRECTOR:

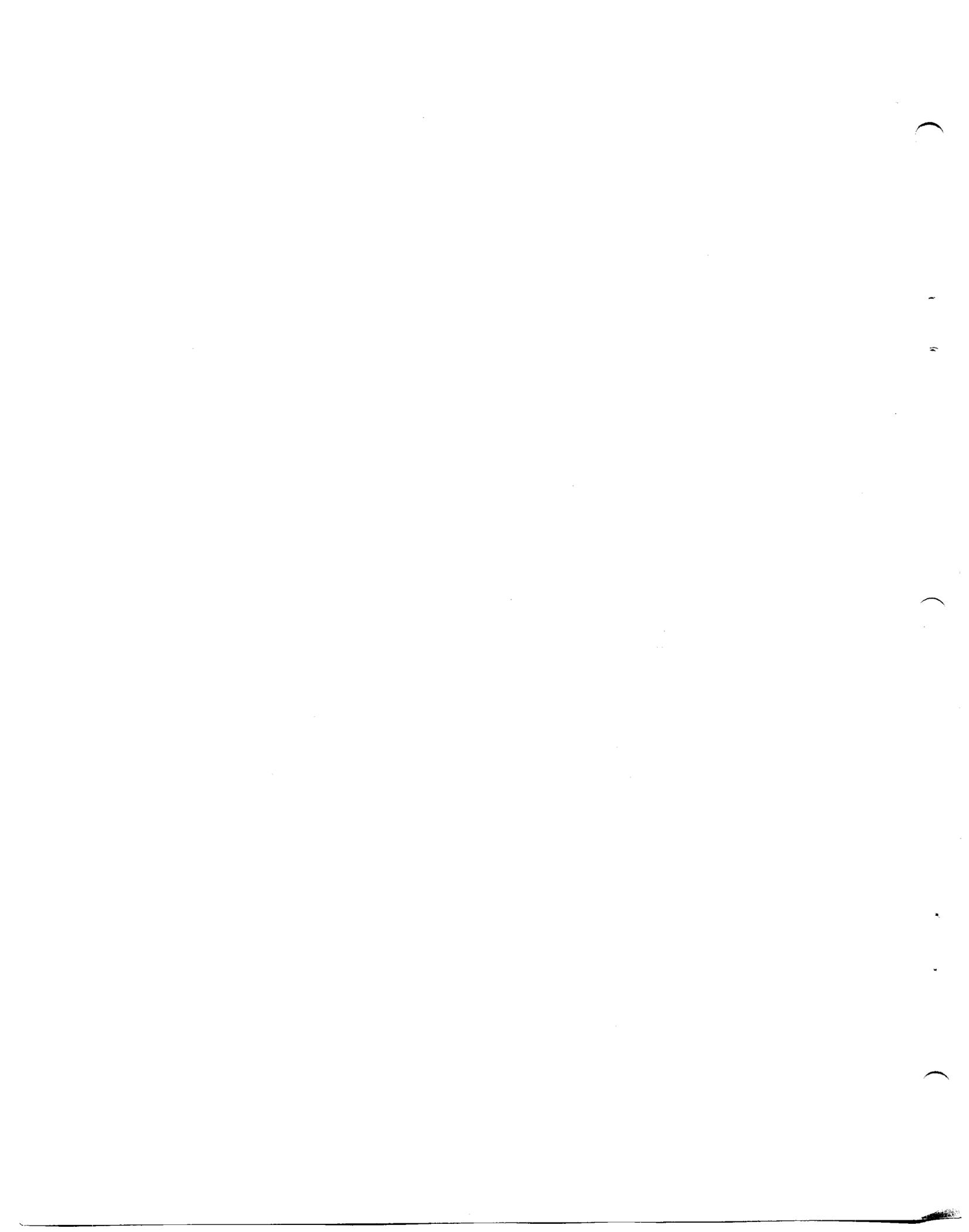
DOUGLAS T. CONLEY
Acting Chief of Staff

SUMMARY OF SIGNIFICANT CHANGES. This revision reflects the changes in reporting requirements for the Defense Communication System (DCS), i.e., DDN, DSN, DISN, etc., to include new time requirements for submission of reports.

This Circular cancels DCAC 300-85-1, 14 December 1981 and DCAC 310-70-61, 25 October 1977.

OPR: DOCP

DISTRIBUTION: Special



CONTENTS

<u>BASIC CIRCULAR</u>	<u>Page</u>
Purpose	i
Applicability	i
Scope.....	i
Reference.....	i
Circular Maintenance.....	i
 <u>Chapter</u>	 <u>Page</u>
1. PROCEDURES	
Concept.....	1-1
Reportable Facilities.....	1-1
Content of Data Base.....	1-7
Serial numbers, Codes, Symbols, and Abbreviations.....	1-7
Reporting Elements.....	1-11
Request for Data.....	1-11
Quality Control.....	1-12
2. PREPARATION OF INITIAL FACILITY/LINK DATA REPORTS	
Reporting Forms.....	2-1
Key Fields.....	2-1
Figures to be Completed.....	2-1
3. STATION PROFILE.....	3-1
4. ROOM(S)/VAN(S)/SHELTER(S).....	4-1
5. POWER SOURCES.....	5-1
6. TECHNICAL CONTROL/PATCH AND TEST.....	6-1
7. DEFENSE SWITCH NETWORK (DSN).....	7-1
8. EQUIPMENT INVENTORY.....	8-1
9. DCS LINKS.....	9-1
10. PREPARATION OF FACILITY/LINK DATA BASE CHANGE REPORT	
General.....	10-1
When to Prepare Change Reports.....	10-1
Preparation of Change Reports.....	10-2
Report Processing.....	10-3

ILLUSTRATIONS

<u>Figure</u>	<u>Page</u>
1-1 Examples: Switches/Nodes.....	1-3
1-2 Examples: Links.....	1-5
1-3 Examples: Links (continued).....	1-6
1-4 DCS Geographical Areas.....	1-8
3-1 Cover Page.....	3-5
3-2 Example: Cover Page.....	3-6
3-3 Station Profile.....	3-7
3-4 Example: Station Profile.....	3-8
4-1 Room(s)/Van(s)/Shelter(s).....	4-3
4-2 Example: Room(s)/Van(s)/Shelter(s)..... Uninterruptible Power System (UPS)	4-4
5-1 UPS (D1).....	5-3
5-2 UPS (D4).....	5-4
5-3 UPS (D2).....	5-6
5-4 UPS (D3).....	5-7
5-5 Power Sources.....	5-11
5-6 Example: Power Sources.....	5-12
6-1 Technical Control/Patch and Test.....	6-4
6-2 Example: Technical Control/Patch and Test.....	6-5
7-1 Defense Switch Network (DSN).....	7-3
7-2 Example: DSN.....	7-4
8-1 Equipment Inventory.....	8-9
8-2 Example: Equipment Inventory.....	8-10
9-1 Example: Antenna/Reflector Configurations.	9-4
9-2 DCS Links.....	9-8
9-3 Example: DCS Links.....	9-9
 <u>Table</u>	
1-1 Facility/Link DCS Facility Names.....	1-14
1-2 Facility/Link Printout Distribution Schedule.....	1-16
8-1 Satellite Equipment.....	8-4

CHAPTER 1. PROCEDURES/DEFINITIONS

1. Concept. Information concerning all operational DCS transmission media systems (DoD-owned and leased links) to include DCS Defense Switched Network (DSN) and Defense Data Network (DDN) and facilities established in direct support of a DCS switch or link (system control, tech control, patch/test, analog and digital multiplexers, and electrical power sources) are required to be reported directly to the appropriate DISA Area, in accordance with this Circular. This information along with other data maintained in DISA computerized data bases (principally the DCS Circuit and Trunk Directories) becomes immediately available to support DCS planning, engineering, and operating functions.

2. Reportable Facilities.

a. The types of DCS links, switches, and support facilities to be reported are listed in Table 1-1. Although DISA specifies the interconnection and interface standards when operated with DCS networks, the DCS does not include:

(1) Mobile and/or transportable communications facilities and assets organic to Army, Navy, Air Force, and Fleet Marine forces, unless specifically designated as components of the DCS.

(2) Ship/ship, ship/shore, air/air, air/ground, and other tactical telecommunications as defined in DoD Directive 7750.5.

(3) Post, camp, base, and station user and/or subscriber facilities and terminals.

(4) On-site telecommunications facilities associated with or integral to weapons systems and to missile launch complexes, including those required for countdown, command, control, weapons destruct, and range safety.

(5) Consoles and display devices integral to the Unified and Specified Command Centers, their DoD Component Headquarters, and the Military Services' operations centers.

b. The following definitions pertaining to reportable facilities apply to this Circular only:

(1) DCS Facility.¹ A U.S. DoD-owned or combination of DoD-owned, fixed, transportable, mobile assets or leased equipment, as appropriate, which produce a general purpose, long haul, point-to-point transmission media

¹The list of facility names in table 1-1 does not include post, camp, base, station/user facilities; dedicated facilities such as command and control centers, weather and logistics relay facilities, intelligence traffic-handling facilities, satellite-tracking facilities, air-ground-air, ship to shore, tactical facilities, etc.

system, traffic switching function, or communications support capability and assets of the Defense Satellite Communications System (DSCS), except any portions specifically excluded from the DCS.

(2) Geographical Location. A location which is composed of one or more DCS facilities. These facilities are operated and maintained by the Government or a contractor through which or to which or a combination of DCS/non-DCS communications links, trunks, or circuits originate, pass through or terminate. A station usually accomplishes a variety of functions including, but not limited to terrestrial or satellite transmission, message switching, circuit switching, circuit restoration, rerouting, trouble isolation, repair, circuit coordination, facility coordination, or relay functions.

Criteria for identifying a reportable station are as follows:

(a) Parent Station. One or more DCS facilities collocated and Operated and Maintained (O&M'd) by the same unit (including DCS facilities totally operated and maintained by civilians under a DoD contract) within an approximate one-mile radius constitute one station and will be referred to as a "parent" Facility/Link station.

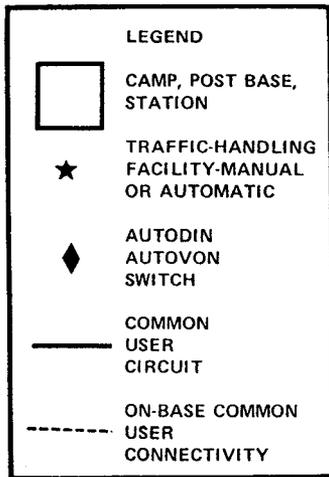
(b) Subordinate Station. One or more DCS facilities O&M'd by the parent Facility/Link station and outside a one-mile radius will be identified as separate "subordinate" Facility/Link stations under the parent Facility/Link station. These subordinate stations may or may not have the same geographical name as the parent reporting station.

(c) Naming of Subordinate Stations.

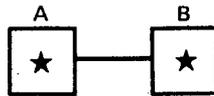
1. Stations may be located within a larger military base or installation (on-base), in areas not on but considered part of the main base or installation (off-base), or in rooms of buildings not located on a military installation. If there are off-base DCS facilities which are considered part of the main base complex, then the off-base name should be used.

2. If reportable DCS facilities are dispersed within the boundaries of a single camp, post, station, etc., each subordinate station should be assigned the camp, post, or station name. These will be distinguished from each other by differences in serial numbers.

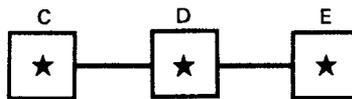
(3) DCS Switch. A voice or data switching facility (manual or automatic, DoD-owned or leased), which is connected to at least two other switching facility nodes through DCS general purpose circuits and performs a voice or data switching function for one or more of the other traffic-handling facilities. If common user circuit connectivity does not exist as described or if voice or data traffic is not being relayed, the switching facility may be presumed to be one of the non-DCS type facilities. Examples of what constitutes a DCS/non-DCS switch is shown in Figure 1-1.



EXAMPLE 1
A & B ARE NOT DCS (SWITCH)



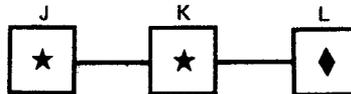
EXAMPLE 2
D IS A DCS SWITCH



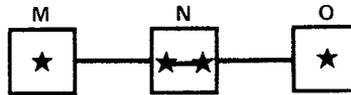
EXAMPLE 3
G & H ARE DCS SWITCHES



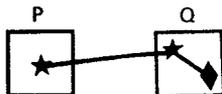
EXAMPLE 4
K & L ARE DCS SWITCHES



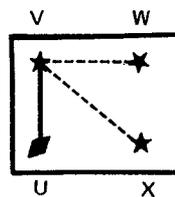
EXAMPLE 5
BOTH FACILITIES AT N ARE DCS SWITCHES



EXAMPLE 6
FACILITIES AT P, AND Q ARE DCS SWITCHES



EXAMPLE 7
FACILITIES AT U AND V ARE DCS SWITCHES AND W AND X NON-DCS



EXAMPLE 8
FACILITIES AT R, S AND T ARE DCS SWITCHES

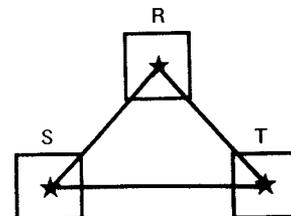


Figure 1-1. Examples: Switches/Nodes

(4) DCS Link. A general-purpose transmission media system providing long-haul, point-to-point connectivity between two camp, post, base, station, or DSCS locations produced by either DoD-owned or leased, and/or fixed or semifixed equipment at one or both locations. The criteria below will apply when determining if a link is DCS (last position numeric). Examples of what constitutes a DCS/non-DCS link are shown in Figures 1-2 and 1-3.

(a) Radio Links (first position can either be an "B", "D", "H", "M", or "T") are considered to be between RF repeaters, transmitters, and receivers. DCS identification will be when at least one location is DoD owned/leased facility. Non-DCS identification will be radio frequencies between non-DoD (U.S. or foreign government) locations that carry DCS trunks.

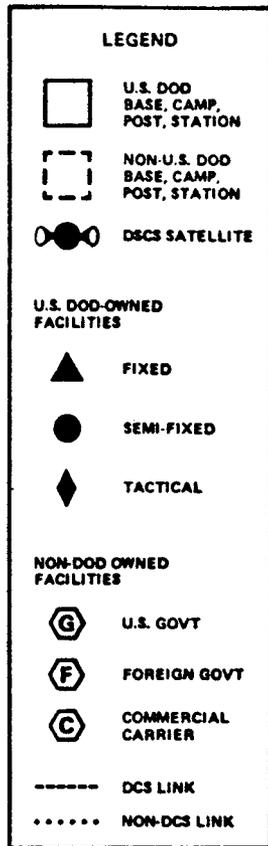
(b) Cable Links (first position can either be an "F", "K", "Q", "R", or "U") are considered to be between those two points where cables terminate or branch. An inter/intrabase cable system will not be considered for DCS identification unless it is four-wired toll grade and terminates at one or both ends in a DCS technical control or patch and test facility, or channel allocation is controlled by DISA.

(c) Satellite Links (first position of the link is an "S") are considered to be between the DSCS earth terminals and DoD or non-DoD satellites. Non-DCS identification will be between non-DoD (U.S. or foreign government) locations that carry DCS trunks.

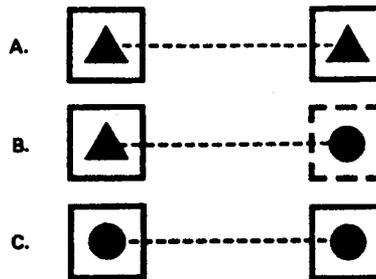
(d) Commercial Links (first position of the link is a "L") are considered when the information service is provided by either a foreign or domestic commercial carrier. DCS identification will be assigned only to a transmission media system that has been leased in its entirety by DoD and channel allocations within the system is controlled by DISA. In order for a leased communication system to be identified as a DCS link, the contract must stipulate that the entire system capacity and equipment capability is for sole use by the U.S. government and the commercial vendor is not authorized to use the transmission media or equipment to derive revenues from resale of unused capabilities of the systems. Systems which provide telecommunications service to U.S. government as well as resale revenues to the commercial carrier will have a non-DCS identifier and will not be reportable in Facility/Link.

3. Contents of Data Base. The Facility/Link is an unclassified data base describing the DCS in terms of stations, facilities, and links and consists of the following files:

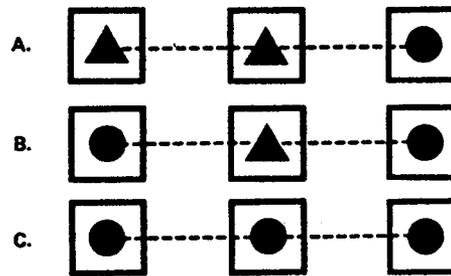
- a. Cover Page (figure 3-2).
- b. Station Profile (figure 3-4).
- c. Room(s), Van(s), Shelter(s) (figure 4-2).
- d. Power Source(s) (figure 5-2).
- e. Technical Control/Patch and Test Facility (TCX/PTF) (figure 6-2).



EXAMPLE 1
EACH OF THE FOLLOWING REPRESENTS TWO
DCS FACILITIES, ONE DCS LINK



EXAMPLE 2
EACH OF THE FOLLOWING REPRESENTS THREE
DCS FACILITIES, TWO DCS LINKS



EXAMPLE 3
EACH OF THE FOLLOWING REPRESENTS ONE DCS/
ONE NON-DCS FACILITY, AND ONE DCS LINK

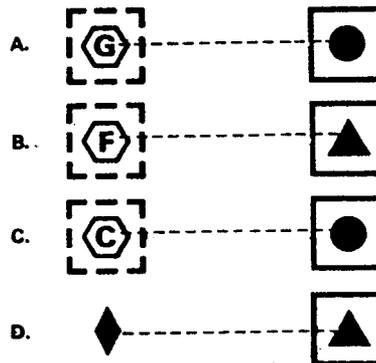
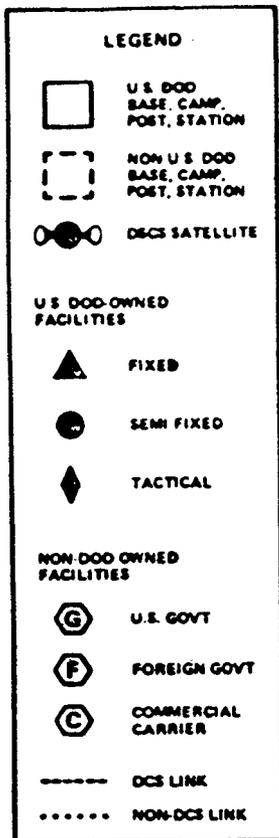
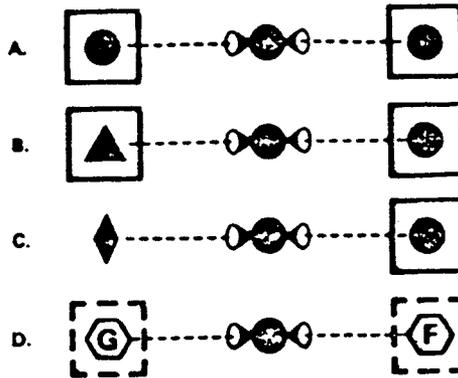


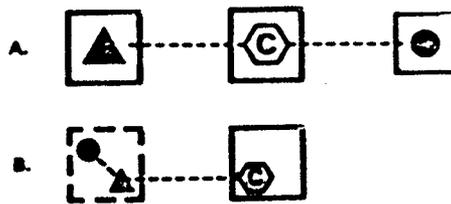
Figure 1-2. Examples: Links



EXAMPLE 4
EACH OF THE FOLLOWING REPRESENTS DCS
SATELLITE LINK CONNECTIVITY



EXAMPLE 5
EACH OF THE FOLLOWING REPRESENTS TWO
DCS/ONE NON-DCS FACILITIES, TWO DCS LINKS



EXAMPLE 6
THE FOLLOWING REPRESENTS FOUR DCS
FACILITIES, THREE DCS LINKS



EXAMPLE 7
THE FOLLOWING REPRESENTS NON-DCS
FACILITIES AND LINKS

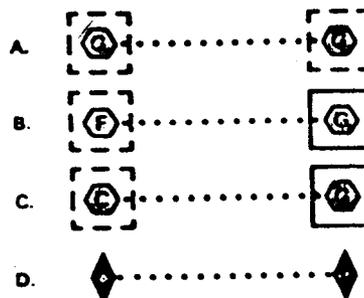


Figure 1-3. Examples: Links (continued)

- f. Defense Switch Network (DSN) (figure 7-2).
- g. Equipment Inventory (figure 8-2).
- h. DCS Links (figure 9-2).

4. Serial Numbers Codes, Symbols, and Abbreviations.

a. Serial Numbers. A unique four-character alphanumeric data item that is assigned to every DCS Facility/Link reporting station for identification in the data base. The last character of the serial number identifies whether the station is a parent or subordinate Facility/Link station. Serial numbers ending in alpha character "A" identify parent stations, and alpha characters "B-Z" identify subordinate stations.

b. Codes, Symbols, and Abbreviations. For the benefit of data users, an effort has been made to avoid the use of coded information in the Facility/Link data base. Tables of codes not incorporated below may be found in DISAC 310-65-1. Those codes, symbols, and significant abbreviations that are in use are as follows:

(1) Station Names. Geographic location (GEOLOC) names used in the DISA data base are contracted, when necessary, to eight characters for entry into the data file.

(2) State or Country (S/C). The standard DoD two-character code identifying the state, province, island, or country in which the station is located. States of the United States are assigned numeric codes; all other S/C codes are alphabetic.

(3) Area Code. For DISA purposes, the world has been subdivided into nine specific areas. The boundaries of each are shown in figure 1-4.

(4) Operations and Maintenance (O&M). This code identifies the parent organization of the unit responsible for O&M of the listed station. O&M codes used in the Facility/Link data base are as follows:

(a) U.S. DoD. The following codes are established to accurately identify the one or both ends of a DCS or non-DCS link under U.S. DoD jurisdiction.

<u>CODE</u>	<u>O&M ORGANIZATION</u>
B	U.S. Navy
D	Defense Information Systems Agency
H	National Security Agency/Central Security Services
J	U.S. Air Force

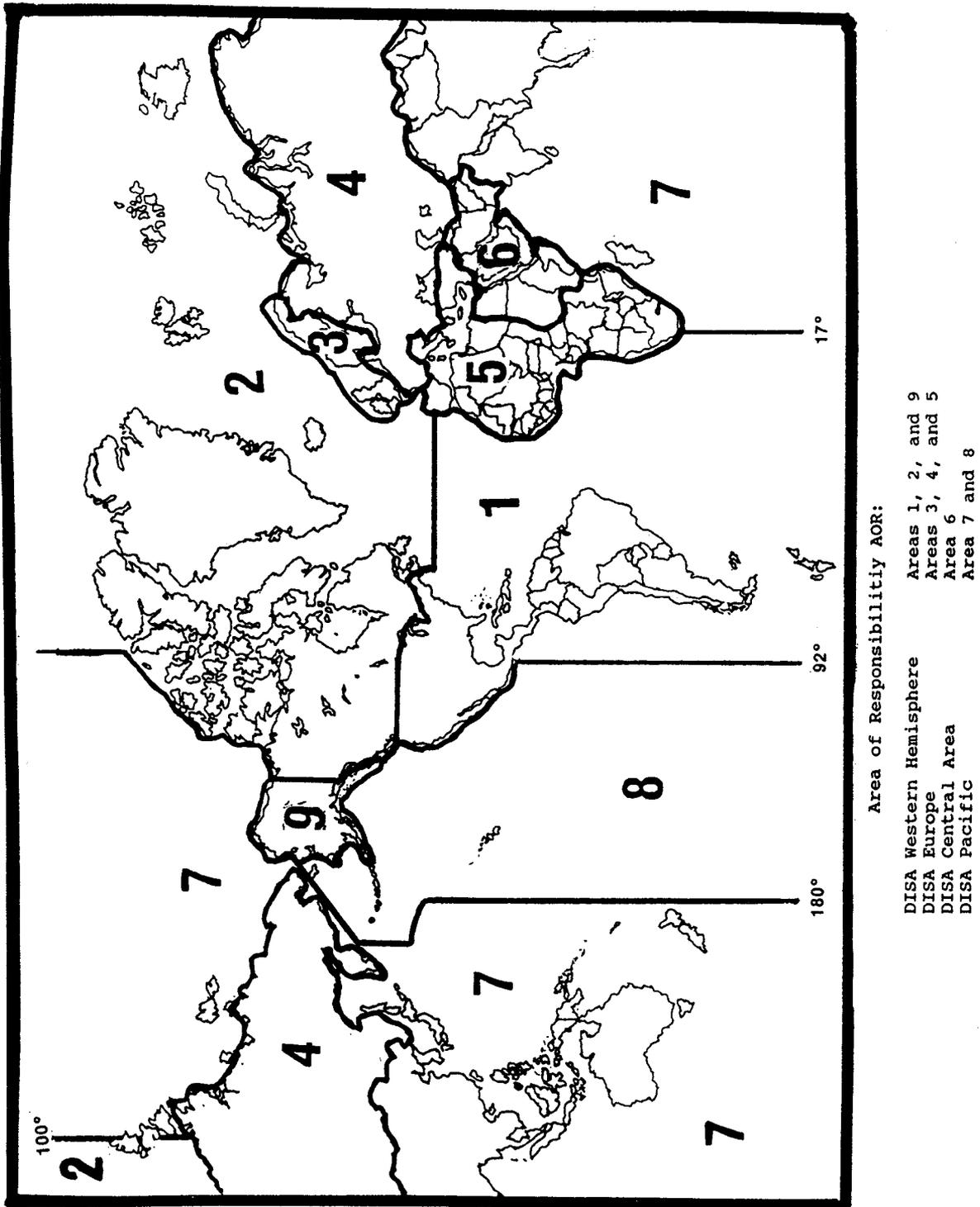


Figure 1-4. DCS Geographical Areas

<u>CODE</u>	<u>O&M ORGANIZATION</u>
L	Defense Logistic Agency
M	Unspecified U.S. DoD (used on DoD space satellites and other link terminal facilities not identified with a specific DoD organization)
U	U.S. Army
X	Undetermined location (used to identify the distant end or connecting location of a contingency link where deployment information are not specified)

(b) Non-U.S. DoD. The following codes are established to accurately identify the one end of a DCS link not under U.S. DoD jurisdiction. (NOTE. Non-U.S. DoD organizations are not required to comply with this Circular. If both ends of a link are non-U.S. DoD, the link is not DCS and is not reportable in accordance with this Circular.)

<u>CODE</u>	<u>O&M ORGANIZATION</u>
A	Foreign Government not otherwise identified
C	Commercial Carrier
P	United Kingdom Government
Q	New Zealand Government
R	Australian Government
S	U.S. Coast Guard
T	Turkish General Staff
V	U.S. Department of State
W	Canadian Government
Y	Republic of Korea
Z	Federal activities not otherwise identified

(5) Plus Symbol (+). Used to indicate that the applicability of a data element to a given station is temporarily unknown. Plus symbols are entered by the reporting station or by the appropriate DISA area. Reporting stations are required to take immediate action to replace plus symbols with the proper data.

(6) Question Mark (?). Used to indicate that the data submitted by the station is not appropriate for that data element. Question marks will be entered by the appropriate DISA area only.

(7) Dash (-). Used to indicate that the data element does not apply to or data is not required by the station.

(8) Link Identifiers. Each transmission media system (link) supporting DCS circuitry is assigned a unique five-character link identifier. The following describes those five positions:

(a) The first character of each link identifier indicates the type of medium (except leased links are assigned an "L" code, regardless of type of medium). The types of medium codes are listed below:

<u>CODE</u>	<u>TYPE MEDIUM</u>
B	HF Radio
D	Diffraction Radio
F	Landline Fiber Optics Cable
H	VHF/UHF Radio
K	Landline Coaxial Cable
L	Commercial (Mixed Medium)
M	Microwave Radio
Q	Submarine Coaxial Cable
R	Landline (Wire) Cable
S	Satellite Radio
T	Tropospheric Scatter Radio
U	Submarine Fiber Optic Cable

(b) The second thru fourth characters are number blocks assigned to the various DISA area of responsibility (AOR) for assignment by various Allocation and Engineers (A&E's) centers. Block assignments are listed below:

000A-0999	DISA Europe
100A-2999	DISA Pacific
300A-3999	DISA West Hemisphere
400A-4999	DISA InterArea (TMSO)
500A-5999	DISA Central Area
600A-9999	Unassigned

(c) The fourth position of the link determines if a link is DCS (numeric) or non-DCS (alpha) per paragraph 2b(4) (a-d).

(d) Abbreviated statements are used exclusively in the Equipment Inventory section and will identify when equipment is required to be reported or not for the various DCS facility abbreviations or links identified in the stations report. DISA Area Centers will determine the appropriate statement to appear in the report.

5. Reporting Elements.

a. All DoD units or DoD contracted civilian organizations responsible for operating or maintaining a station are required to prepare and submit an initial (one-time) Facility/Link report in accordance with this Circular unless an initial report was previously submitted under the provisions of a superseded version of DISA Circular 300-85-1 and the Facility/Link report has continued in active status since that submission.

b. If two or more O&M units at the same station have O&M responsibility for different DCS facilities, each unit must comply with the provisions of this Circular. Single DCS facilities operated by one unit and maintained by another unit will be reported by the operating unit.

c. After units or organizations have submitted an initial report, they must submit change reports on a continuing basis in accordance with chapter 10. On-base civilian contractors supporting an on-base DoD O&M unit are not required to submit separate reports; however, the on-base DoD unit's report will identify on-base contractor support in accordance with instructions in chapter 3.

d. Civilian contractors who maintain/operate DCS facilities can submit the appropriate changes that are required to maintain the Facility/Link reports only upon approval from the DoD Representative (COR) or if it is part of the contract.

6. Requests for Data.

a. Data reported in accordance with this Circular is available to all authorized users upon request. Requests for Facility/Link data for a specific station or group of stations should be submitted to the appropriate DISA Area Center (see para 4b, Chapter 10 for addressees). Requests need to include the specific data elements required and a justification statement indicating how the data is to be used.

b. The data formats in figures 3-1 through 9-2 include all data required to be reported. However, these formats and the Distribution Schedule in table 1-2 have been established primarily to serve as a quality control feedback to the reporting stations and are generally not available to "users" of the data unless users justify their requirements for each data element on each figure.

c. User recipients of products derived from the Facility/Link data base are requested and encouraged to inform the appropriate DISA area of known or suspected data errors so that corrective action may be taken.

7. Quality Control.

a. Reporting Station.

(1) Upon submission of an initial Facility/Link report, the reporting station has a continuing responsibility for ensuring that reported data is accurate and current. Major changes, i.e., activation/deactivation of DCS facilities, must be reported within 5 working days after the change occurs. Routine changes, i.e., room numbers, equipment status, etc., will be reported within 15 working days after the occurrence.

(2) Each reporting station will be furnished copies semiannually of updated computer printouts (figures 3-1 through 9-2) of all previously reported data pertaining to the station and its subordinate station(s) in accordance with the schedule in table 1-2. Printouts supersede the previous printout and reflect all changes submitted to the appropriate DISA area from reporting stations.

(3) Upon receipt of each semiannual printout, the reporting station is responsible for immediately reviewing the printout to ensure that all data reported since receipt of the last semiannual printout are correctly reflected in the new printout and for submitting data or correcting erroneous data, if any.

b. DISA Area.

(1) DISA area personnel will enter changes received after the distribution date of printouts immediately into the master file and make them available to data users.

(2) Upon receipt of each initial or change report, DISA technical specialists, with computer assistance, will review the report for completeness, accuracy, and consistency. All missing data or reported data appearing to be in error will be referred back to the reporting station for action. An interim or final reply to each error or discrepancy must be forwarded by the affected station so as to arrive at the appropriate DISA area within 15 working days from the date of the error or discrepancy notice. Follow-up inquiries by DISA areas, if necessary, will be addressed to successively higher echelons of command until a reply is received from the delinquent station.

(3) DISA areas will conduct periodic internal manual and automatic cross-checks with information contained in other DISA data files and will take action to correct any reported data errors.

(4) Facility/Link reports are used as one aspect of the rating factor (i.e., submission of changes, currency of data, etc.) in the determination of the recipient for the Facility of the Year awards program.

c. MILDEP'S. It is recommended that military department staff echelons exercising command authority over the Facility/Link data base reporting units establish a quality control procedure to obtain and review printouts of data reported by their subordinate units. Distribution for this purpose can be made in accordance with the schedule in table 1-2. They are also requested to communicate directly with the reporting unit to resolve reported known or suspected errors with instructions to the reporting unit to submit corrections, as appropriate.

 * Table 1-1. DCS Facility Names *

TRAFFIC SWITCHES

Automatic Voice Switch (other than DSN)	AUTOSW
Manual Voice Switchboard	MANSWB
DSN Multi-Function Switch (MFS)	DSN-MFS
DSN End Office (EO)	DSN-EO
DSN Small End Office	DSN-SMALL-EO
Red Switch	RED SWITCH
Red Network Management Multiplexer (NMM)	RED-NMM
AUTODIN	AUTODIN
Automatic Digital Relay (other than AUTODIN)	AUTODIGRELAY
Manual Digital Relay	MANDIGITRELAY
DDN DSNET1 Packet Switch Node (PSN)	DDN-DSNET1-PSN
DDN DSNET1 Mini Terminal Access Controller (MTAC)	DDN-DSNET1MTAC
DDN DSNET2 PSN	DDN-DSNET2-PSN
DDN DSNET2 MTAC	DDN-DSNET2MTAC
DDN DSNET3 PSN	DDN-DSNET3-PSN
DDN DSNET3 MTAC	DDN-DSNET3MTAC
DDN MILNET PSN	DDN-MILNET-PSN
DDN MILNET TAC	DDN-MILNET-TAC
DDN MILNET MTAC	DDN-MILNETMTAC
DISN NMM	DISN-NMM
DISN Spine Router	DISN-SPINE-RTR
DISN POP Router	DISN-POP-RTR
Digital Patch Access System	DPAS

TRANSMISSION MEDIUM

LandLine Coaxial Cable	LL COAX CABLE
Carrier System (signals derived from multiplexer)	LL CABLE
LandLine Cable (cable pairs)	LL FO CABLE
LandLine Fiber Optic Cable	SUB COAX CABLE
Submarine Coaxial Cable	SUB FO CABLE
Submarine Fiber Optic Cable	TROPO
Tropospheric Scatter	LOS
Line-of-Sight (UHF/VHF, M/W, Diffraction)	DSCS ET
DSCS Earth Terminal (ET)	DSCS SAT
DSCS Satellite Relay	HF RCVR
HF Receiver	HF XMTR
HF Transmitter	COMMERCIAL
Commercial (leased medium, any type)	

 * Table 1-1. DCS Facility Names (continued) *

Support

DISA Network Operations Center
 DISA Area Communications Ops Center
 DISN Network Management Center Ops Center
 DISN Multiplexer
 DDN MILNET Monitor Center (MC)
 DDN DSNET1 MC
 DDN DSNET2 MC
 DDN DSNET3 MC
 Analog and Digital Channel Derivation Equipment
 Technical Control
 Patch and Test
 DCS Power

DISA-NOC
 DISA-ACOC
 DISN-NMC-OC
 DISN-MULTIPLEX
 DDN-MILNET-MC
 DDN-DSNET1-MC
 DDN-DSNET2-MC
 DDN-DSNET3-MC
 MULTIPLEX
 TECH CONTROL
 PATCH/TEST
 DCS POWER

NOTE: When multiple DCS/DISN facilities are located at the same station, the second and additional facilities will be identified with the numeric 2 through 9 as appropriate, e.g., MANSWB2, DSCS ET4, PATCH/TEST3, ETC.

 * Table 1-2. Facility/Link Printout Distribution Schedule *

	JAN JUL	FEB AUG	MAR SEP	APR OCT	MAY NOV	JUN DEC
Western Hemisphere (DISA Areas 1, 2, & 9)				X		
Central Area (DISA Area 6)				X		
Pacific (DISA Areas 7 & 8)						
FCO Hawaii	X					
FCO Guam		X				
FCO Japan				X		
FCO Okinawa					X	
FCO Korea						X
Europe (DISA Areas 3, 4, & 5)						
FCO's		(Feb/Mar)		(Sep/Oct)		

CHAPTER 2. PREPARATION OF INITIAL FACILITY/LINK REPORT

1. Reporting Forms. Data required in the initial report will be entered on formatted blank forms and submitted directly to the appropriate DISA area. Copies of required forms are included as figures 3-2 through 8-1 for reference purposes only and are NOT to be removed from the Circular. The appropriate DISA area will furnish copies of these forms to the appropriate O&M unit, as required, for the preparation of initial reports.

2. Key Fields. Key fields are, as the name implies, "key" to specific files or records within the data base. Key fields are established primarily for use by reporting stations in the preparation of change reports in accordance with chapter 10. Three of the key fields are determined by information contained in the reporting station's initial submission and three are established by DISA as follows:

a. Serial Number (Serial Nr.). Determined by DISA. Reporting stations are to leave this field blank on all initial report forms.

b. Parent and Subordinate Station Name. Enter the name of the camp, post, station, base installation, or Federal building that stands alone and is not part of a military installation. If facilities are not located at any of these areas, then enter the city where located. Do not enter Unit or Command as Station Name.

c. As of Date. Determined by DISA. Reporting stations are to leave blank on initial report.

d. Change Report Number. Initial reports submitted by the stations will be numbered zero (000) and subsequent change reports will be sequential from "001" to "999."

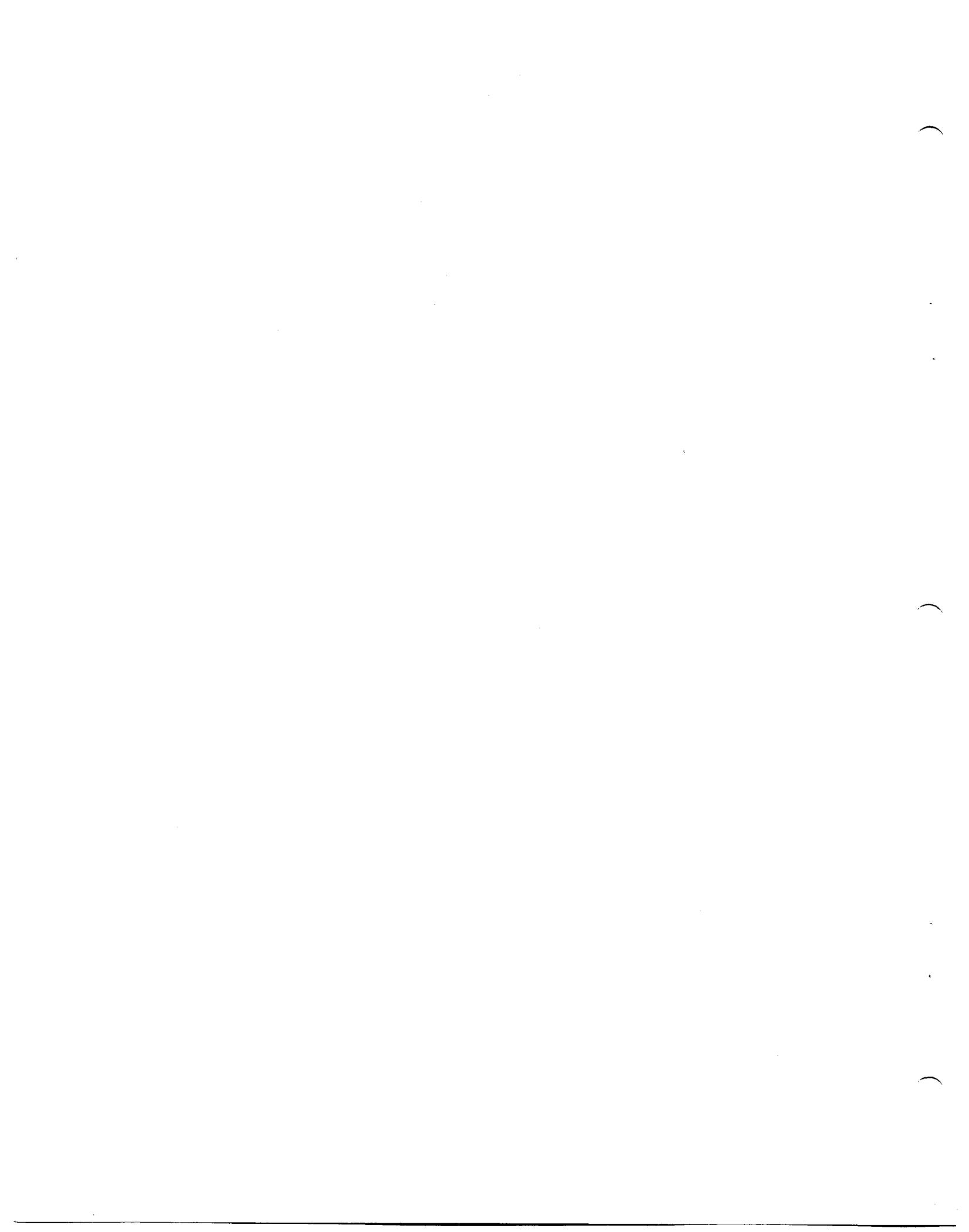
e. Date of Last Change Report. Date entered will be the date of the last report (initial or change) prepared by the station.

3. Figures to be Completed. Each DCS station must complete one copy of figures 3-2 through 8-1. For figure(s) that may not apply to a reporting station, complete only the Parent and/or Subordinate (only if different than Parent) Station Name field and print "NOT APPLICABLE" across the figure. For those figures that DO apply, one of the following entries must appear under or opposite each heading:

a. The data or value as it appears to the reporting station.

b. A dash (-) if the data or value does not apply to the reporting station.

c. A plus symbol (+) if the data or value does apply but is currently unknown to the reporting station and will be provided at a later date.



CHAPTER 3. STATION PROFILE

1. Instructions. Complete figure 3-3 in accordance with the instructions in the following paragraphs and example in figure 3-4.
2. Station Name (Parent and Subordinate). (Field size is 26 alphanumeric characters. No limit on initial input; Station Name will be contracted by DISA, if necessary, for entry into the data base.) Enter the full spelling of the established name for the camp, post, station, base installation, or federal building. If DCS facility(ies) exist at a non-DoD facility, enter the geographical location, i.e., city, town, or any other type of identifier that would uniquely identify that particular location. The full and contracted spelling of the station name in accordance with Chapter 33, DISAC 310-65-1; will appear on the printout. For further clarification as to what constitutes a DCS station, see paragraph 2b(2), Chapter 1.
3. State/Country Code (S/C). (Field size is two alpha or numeric characters.) Enter the DoD standard two-character code of the state or country in which the station is located. If the applicable S/C code is unknown, enter the full spelling of the state or country. For state codes only, DISA will identify the approved United States Postal Service state abbreviations along with the numeric code on the station's printout.
4. Area. (Field size is one numeric character.) Select and enter the DISA area (see map in figure 1-4) in which the DCS station is located.
5. Operations and Maintenance (O&M). (Field size is two alpha characters.) From the list in paragraph 4b(4), chapter 1, select and enter the code representing the parent command having operational responsibility for the station. If O&M is not listed, provide full spelling of O&M and DISA will assign a code.
6. Operating Unit Mailing Address. (This data element has several subfields and the field sizes are identified separately.) Accuracy and completeness in initially entering and in maintaining address information are extremely important. The address entered by the reporting station is used by DISA on all outgoing correspondence to the station, including the computer production of mailing labels for semiannual printout distribution. The data to be entered and the subfield sizes are as follows:
 - a. Title. (Field size is 26 alphanumeric characters.) Enter the title of the senior official in the O&M unit; e.g., Commanding Officer, Commander, Station Commander, NCOIC, Station Supervisor, etc.
 - b. Unit Designation. (Field size is 26 alphanumeric characters.) Enter the designation of the unit responsible for operating and/or maintaining the DCS facilities at the station. When a civilian contractor has O&M responsibility for a DCS station, enter the contractor's name and the name of the military unit which has administrative responsibility; e.g., Nippon Electric Corp c/o 1956 Comm Gp, etc.

c. Attention Line. (Field size is 17 alphanumeric characters.) Enter the internal office symbol of the unit that has responsibility for submitting this report; e.g., DOY, AS-DCS-OPS, etc. If no office symbol is available, enter an unique identifier to ensure that the report will be delivered to the appropriate office/person.

d. City. (Field size is 17 alphanumeric characters.) Enter the name of the city, (e.g., Arlington, McKees Rocks, etc.) or the military overseas address code that handles the station's APO or FPO code mail (e.g., APO AP, FPO AE, etc.).

e. State. (Field size is two alpha characters.) Enter the approved Postal Service abbreviation of the state in which the city is located.

f. AP0, FPO, or ZIP Number. (Field size is nine numeric characters.) Enter the appropriate APO, FPO, or ZIP code (e.g., 22204-2199) for the reporting station.

7. Unit Message Address. (Field size is 87 alphanumeric characters.) Enter the AUTODIN Plain Language Address (PLA) as established in ACP 117 or as listed in the AUTODIN Message Address Directory (MAD). The message address will consist of Title (if appropriate), Unit Designation, Location, State/Country Abbreviation, and Office Symbol, e.g., CDR 1995 COMM GP FAIRBANKS AK//DOYNT//. If the DCS station does not have access to the AUTODIN system then enter the Electronic Mail (EMAIL) address.

a. Title. Enter the title of the senior official in the O&M unit; e.g., C.O., Cdr, Director, Sta. Supv, etc.

b. Unit Designation. Enter the unit designation (e.g., 1995 Comm Gp) and authorized abbreviation, if any. Unit entered here should refer to the same unit designation entered for the mailing address.

c. Name of Protecting Communications Center. Enter the name of the communications center having administrative message acceptance and delivery responsibility for the unit, Usually the name of the protecting communications center is the same as the name of the station. However, if the communications center is at a different location, then enter the name where the communications center is located. Enter a geographic name only; APO, FPO, and ZIP codes are not authorized or acceptable as part of a message address.

d. State or Country. Enter the abbreviation of the state or country where the protecting communications center is located.

e. Attention Line. Enter the internal office symbol; e.g., DOYNT, AS-DCS-OPS, etc. The office symbol should be identical to the one reported in the Attention Line for the Unit Mailing Address.

8. Next Higher Unit Mailing Address. (Field sizes are the same as given in paragraph 6, this chapter.) Enter the mailing address of the unit exercising command authority over the operating unit. Follow the instruction in paragraph 6. The next higher unit must not be the same as the operating unit.

If the operating unit is the same as a civilian contractor, enter the address of the military unit furnishing operational guidance and control.

9. Next Higher Unit Message Address. (Field size is the same as given in paragraph 7, this chapter.) Enter the message address in the format provided in paragraph 7.
10. Second Higher Unit Mailing Address. (Field sizes are the same as given in paragraph 6, this chapter.) Enter the mailing address of the unit exercising command authority over the next higher unit mailing address. Follow the instructions in paragraph 6.
11. Second Higher Unit Message Address. (Field size is the same as given in paragraph 7, this chapter.) Enter the message address of the next higher unit in the format provided in paragraph 7.
12. Contract Maintenance. Provide all civilian contractors, American or foreign, that support the operations and/or maintenance of the DCS Facility(ies) either full or part time. Contractors under a DoD support contract for maintenance of DCS equipment will also be identified. If a contractor was entered in the operating unit, also enter the contractor's name here.
 - a. Sequence Number (SEQ). (Field size is one numeric character.) Sequence numbers will be entered by DISA when a contractor is identified.
 - b. Contractor's Name. (Field size is 35 alphanumeric characters.) Enter the name of the contractor. If none, enter a dash (-).
 - c. Sequence Number (SEQ). (Field size is one numeric character.) Sequence numbers will be entered by DISA when DCS facilities are supported by a contractor.
 - d. DCS Facilities Maintained by Contract Maintenance. (Field size is 14 alphanumeric characters.) Enter the Facility abbreviations from table 1-1 of all facilities maintained by the contractor. Enter a dash (-) if no contract maintenance is provided.
- c. Two or More Contractors. When more than one civilian contractor supports DCS facilities at the station, repeat the steps in paragraph 12.
13. Geographic Coordinates. (Field size is six numeric characters and one alpha character for latitude, seven numeric and one alpha for longitude.) Enter the geographic coordinates (latitude and longitude) of the approximate center of the station in degrees, minutes, seconds, and direction.
14. Elevation. (Field size is five numeric characters, one alpha character.) Enter the elevation in meters followed by the letter "A" (above) or "B" (below) mean sea level.

15. Types of DCS Facilities Maintained at Station. (Field size is 14 alphanumeric characters.)

a. From Table 1-1, select and enter the appropriate DCS facilities maintained at that station; i.e., switches (voice and data), transmission, and/or support.

(1) Switches. Enter as listed under the heading of "Traffic Switches." When one or more switchboards are located at the same location, report each separately; e.g., RED SWITCH, RED SWITCH2, MANSWB, MANSWB2, etc.

(2) Transmission. Enter as listed under the heading "Transmission Media." When one or more DCS satellite earth terminals (DSCS) are located at the same location, report each separately; i.e., DSCS ET, DSCS ET2, etc.

(3) Support. Enter as listed under the heading "Support." When one or more patch and test facilities are located at the same location, report each separately; i.e., PATCH/TEST, PATCH/TEST2, etc.

b. Separate, distinct facilities may be collocated in the same room; e.g., PATCH/TEST and MULTIPLEX, MANDIGITRELAY and AUTODIN, etc. List each facility separately in those cases.

c. If a single type of facility is spread throughout several rooms in a single building, or in adjunct buildings, or in several collocated vans, enter the facility name only once.

d. Each separate facility entered under "Types of DCS Facility(ies) Maintained at the Station" must later be identified in the Room(s)/Van(s)/Shelter(s) (figure 4-1), Power Sources ((figure 5-1) (with the exception of facility "DCS Power")) and Equipment Inventory (figure 8-1) files.

e. Use the Facility Abbreviation "DCS Power" to identify DCS power sources that were solely installed to support the DCS facility(ies); i.e., if commercial or non-DCS power sources are providing power to DCS facilities, do not use Facility Abbreviation "DCS Power."

16. Remarks. (Field size is unlimited.) Enter any explanation or clarification, special conditions, unusual circumstances, etc., that apply to the station. Remarks should be general in nature; e.g., road inaccessible during heavy rains, access to station only by helicopter, etc.

UNCLASSIFIED

COVER PAGE FOR
XXXXXXXXXXXXXXXXXXXXXXXXXX
(XXXXXXXX XX)
SER NR XXXX

UNCLASSIFIED

Figure 3-1. Cover Page

UNCLASSIFIED

COVER PAGE FOR
MCKEE'S ROCKS DEPOT PA
(MKS/SOPT 42)
SER NR XXXA

UNCLASSIFIED

Figure 3-2. Example of Cover Page

UNCLASSIFIED

SERIAL NR - XXXX AS OF DATE - XXXXX
 UTC - XXXXX DATE OF LAST CHANGE REPORT - XXXXXX

STATION PROFILE - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCA(AR)N330-3 CHANGE REPORT NR XXX

PARENT STATION - XXXXXXXXXXXXXXXXXXXX SUBORDINATE STATION - XXXXXXXXXXXXXXXXXXXX S/C - XX AREA CODE - X O&M - XXXX
 (XXXXXXXX) (XX) (X)

OPR UNIT MAILING ADDRESS: XXXXXXXXXXXXXXXXXXXX ATTN: XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XX XXXX-XXXX
 MESSAGE ADDRESS: XXXXXXXXXXXXXXXXXXXX ATTN: XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX

NEXT HIGHER MAILING ADDRESS: XXXXXXXXXXXXXXXXXXXX ATTN: XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XX XXXX-XXXX
 MESSAGE ADDRESS: XXXXXXXXXXXXXXXXXXXX ATTN: XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX

2ND HIGHER MAILING ADDRESS: XXXXXXXXXXXXXXXXXXXX ATTN: XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XX XXXX-XXXX
 MESSAGE ADDRESS: XXXXXXXXXXXXXXXXXXXX ATTN: XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX

ONSITE CONTRACTOR(S) TYPE OF DCS FACILITY(IES) MAINTAINED
 XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX

-----COORDINATES-----

LATITUDE: XX XX XX X LONGITUDE: XXX XX XX X

-----ELEVATION -----

XXXXXX

----- SWITCHES (VOICE & RECORD) ----- TYPE OF DCS FACILITY(IES) MAINTAINED AT STATION -----
 XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX
 ----- TRANSMISSION ----- SUPPORT -----
 XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX

REMARKS: (OPTIONAL)

UNCLASSIFIED

PAGE XXX

Figure 3-3. Station Profile

UNCLASSIFIED

SERIAL NR - XXXA
 UIC - FFFD00
 STATION PROFILE - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCA(AR)N330-3 CHANGE REPORT NR 001
 AS OF DATE - YYMMDD
 DATE OF LAST CHANGE REPORT - YYMMDD
 PARENT STATION - MCKEES ROCKS DEPOT (MKSXSPT)
 SUBORDINATE STATION - MCKEES ROCKS DEPOT (MKSXSPT)
 S/C - PA AREA CODE - 1 O&M - DISA (D)

OPR UNIT MAILING ADDRESS: OIC 50TH COMM BN ATTN: OPS MCKEES ROCKS DEPOT PA 20331-6345
 MESSAGE ADDRESS: OIC 50TH COMM BN MCKEES ROCKS DEPOT PA//OPS//

NEXT HIGHER MAILING ADDRESS: DIR DEF INF SYS AG ATTN: OP WASHINGTON DC 20203-5000
 MESSAGE ADDRESS: DIR DISA WASHINGTON DC//OP//

2ND HIGHER MAILING ADDRESS: DEPT OF DEFENSE ATTN: DODOPS WASHINGTON DC 20205-5000
 MESSAGE ADDRESS: DOD WASHINGTON DC//DODOPS//

ONSITE CONTRACTOR(S) TYPE OF DCS FACILITY(IES) MAINTAINED

CODEX CORP MULTIPLEX
 88N DDN-MILNET-PSN DDN-MILNETPSN2

-----ELEVATION -----

-----COORDINATES -----

LATITUDE: 38 48 50 N LONGITUDE: 076 53 20 W 200A

----- SWITCHES (VOICE & RECORD) ----- TYPE OF DCS FACILITY(IES) MAINTAINED AT STATION -----
 DDN-MILNET-PSN
 DDN-MILNETPSN2
 DSN-MFS
 DISN-NMM
 LOS
 TRANSMISSION -----
 MULTIPLEX
 TECH CONTROL
 DCS POWER
 PATCH/TEST
 SUPPORT -----

REMARKS: 01 DURING HEAVY RAINSTORMS, ACCESS TO STATION BY 4 WHEEL DRIVE ONLY.

UNCLASSIFIED

Figure 3-4. Example: Station Profile

CHAPTER 4. ROOM(S)/VAN(S)/SHELTER(S)

1. Instructions. Complete figure 4-1 in accordance with the instructions in the following paragraphs and the example in figure 4-2.
2. Parent and Subordinate Station Name, S/C Code, Area Code, and O&M Code. Leave blank. Information will be entered by DISA from the Station Profile (figure 3-3).
3. Structure Numbers. (Field size is nine alphanumeric characters.)
 - a. Temporary structures include van(s), shelter(s), tent(s), or any structure easily assembled and disassembled. A van complex may be considered equivalent to a single building and the vans composing the complex equivalent to rooms within the building. Individual vans or shelters not part of a van complex may be considered equivalent to a one-room building.
 - b. Enter the structure number of all permanent and/or temporary structures housing DCS facilities to include structures housing DCS power sources.
 - (1) If all facilities are in the same room, wing, or van, enter the structure number only one time.
 - (2) If a single facility occupies several structures, list only the main structure.
 - (3) If there are two or more distinct facilities in two or more separate rooms, enter the same structure number, as often as necessary to allow a separate line entry for each room.
 - (4) If there is no assigned structure number, then one will be assigned for identification purposes by the reporting station.
 - (5) For large buildings devoted primarily to non-communications purposes such as the Pentagon, I.G. Farben Building, etc., identify building by name rather than number.
4. Room, Wing, or Van Number. (Field size is six alphanumeric characters.) Enter the room, wing, or van number in which each DCS facility is located. If a room, wing, or van number has not been previously determined, one will be assigned for identification purposes by the reporting station. Precede the assigned number with the letter "R" for room, "W" for wing, or "V" for van. For tents and shelters, enter a dash (-).
 - a. If a single facility occupies several rooms, enter only the main room, wing, or van number.
 - b. If several facilities occupy the same room, wing, or van, enter the room, wing, or van number only one time.

5. Room Size (ft). (Field size is six numeric characters.) Enter the size of the room or wing in square feet. For vans, tents, and/or shelters, enter a dash (-).

6. Sequence Number (SEQ). (Field size is two numeric characters.) DISA will assign the sequence number.

7. DCS Facilities Contained in this Room. (Field size is 14 alphanumeric characters.)

a. Enter each Facility Name as previously entered on the Station Profile (figure 3-3) in accordance with paragraph 15, chapter 3, on the same line with its applicable building and room, wing, or van number. Several facilities may be listed on the same line if they are all located in the same building and room.

b. Each Facility Name entered on the Station Profile file must be accounted for on the Rooms, Vans, Shelters file and vice versa.

8. Attendance Status. (Field size is eight alphanumeric characters.) Enter one of the following to indicate the manning status of each facility:

a. Twenty-four hours.

b. NML DUTY (normal duty).

c. On-Call.

d. Other (Specify in the "Remarks" (paragraph 9) the appropriate working hours, i.e., 0600-1800, 0800-2000, etc.).

9. Remarks. (Field size is unlimited.) Enter any explanation or clarification, special conditions, unusual circumstances, etc., that may apply to any structure and/or Facility Name identified; e.g., Structure "20004" is in a secure area, facility attended 10 hours a day, etc.

UNCLASSIFIED

4-4

SERIAL NR - XXXA ROOM(S)/VAN(S)/SHELTER(S) - FACILITY/LINK DTA (DCAC 300-85-1) AS OF DATE - YMMDD
 RCS: DCA(AR)N330-3 CHANGE REPORT NR 001 DATE OF LAST CHANGE REPORT - YMMDD
 PARENT STATION - MCKEES ROCKS DEPOT SUBORDINATE STATION - MCKEES ROCKS DEPOT S/C - PA AREA CODE - 1 O&M - DISA (D)
 (MKSKSDPT) (MKSKSDPT) (42)

STRUCTURE	NUMBER	ROOM	ROOM SIZE	TYPE OF DCS FACILITY(IES) CONTAINED IN THIS ROOM	ATTENDANCE STATUS	SEQ NR
1558		R-30	5376	DCS POWER	24 HOURS	1
20004		R-76	8212	TECH CONTROL	24 HOURS	1
20004		R-61	5000	PATCH/TEST	24 HOURS	1
20004		R-47	3705	DSN-MFS	24 HOURS	1
				MULTIPLY DISN-NMM LOS		
				DDN-MILNET-PSN DDN-MILNETPSN2		

DISAC 300-85-1

REMARKS: STRUCTURE 20004 IS IN A SECURE AREA.

Figure 4-2. Example: Room(s)/Van(s)/Shelter(s)

CHAPTER 5. POWER SOURCES

1. Instructions. Complete figure 5-1 in accordance with the instructions in the following paragraphs and the examples in figure 5-2.

2. General. Communications equipment requires power from either alternating current (ac) or direct current (dc) sources. Efficient equipment performance is dependent upon stable power supplies. Normally, most DCS stations have at least two separate power sources, primary power and auxiliary power. These two sources must be selectable: that is; switching and other necessary mechanisms must be provided to permit station personnel to select the desired source. Changeover must be fast; in fact, it should be possible to change power sources without any break in the power supply to the communications equipment. When primary power fails without warning, this may not be possible. Activation of the auxiliary power and connection to the communication equipment should comply with the prescribed standards. All power sources supporting DCS facilities, must be identified by an entry in Power Source Location (paragraph 4). If a power class cannot be determined by the descriptions or figures presented, provide a diagram and description of the power class and a determination to the correct power class will be made by DISA

a. Types of Power Sources.

(1) A DCS electrical power source is U.S. DoD-owned electrical power-generating equipment where custody/property accountability will be maintained by the O&M unit of the DCS station and where the primary function of the power source is to provide prime or backup power to DCS communications and support facilities.

(2) A non-DoD electrical power source is electrical power-generating equipment that is owned and/or maintained by a commercial company, a foreign government, or U.S. Government non-DoD (State Dept, FAA, etc.).

(3) A DoD electrical power source is owned/maintained by a non-DCS activity of one of the military services; e.g., Base Civil Engineers, Army Facility Engineers, Navy Public Works.

b. Prime and Auxiliary Power.

(1) Class A Primary power is a primary power plant, which provides an assurance of essentially continuous supply of power which normally serves the main feeders of the station. The normal source of primary power is usually the commercial utility company or central base power station. Whenever the primary power is provided from a single source, an emergency source is usually provided and is subject to various voltage and frequency deviations, transients and occasional complete power failure.

(2) Class B Auxiliary power is standby power plant to cover extended outages (days) of primary power. Includes the same operational loads as Class A power. Auxiliary power is capable of indefinite operation and should have at least 15 days fuel supply available. Class B power is supplemental to

primary power and subject to complete loss of synchronized power for approximately 20 seconds during automatic power transfer after primary power loss.

(3) Class C Auxiliary power is a quick start (10-60 seconds) unit(s) to cover short-term outages (hours) of primary power. Provides automatic start for the rapid restoration of power to the technical load. This type of auxiliary power covers outages of somewhat short periods (hours) and should have at least 7 days fuel supply on hand. Class C power is a supplement to primary power and assumes the load in the shortest practical time after failure of primary power (10-60 seconds).

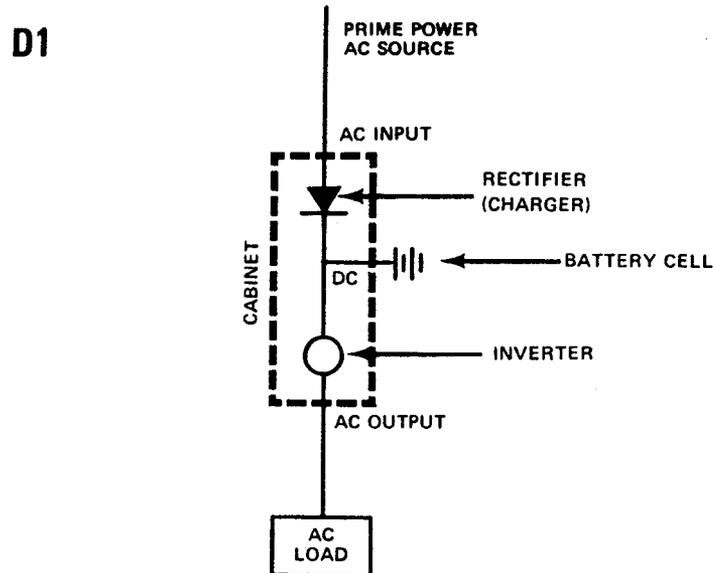
(4) Class D Auxiliary power is an uninterruptible (no break) power unit(s) using stored energy to provide continuous power within specified voltage and frequency tolerance. Class D power prevents the occurrence of transients and surges on the critical load. UPS systems, typically solid state, use storage batteries to provide the required energy to the critical load during transfer from primary to auxiliary power and vice-versa.

c. Type of ac Power is available in many different forms (voltage, phase, and frequency). The type required by a particular station is determined by the equipment installed at that station. All ac powered communications equipment manufactured in the United States is available in models that require an input frequency of 60 Hz. Some equipment is also available in models that can operate on ac power supplied at different frequencies, such as 25 or 50 Hz. Most foreign made equipment is designed to operate only from 50 Hz power source. Since most of the equipment at any DCS station will be manufactured in the United States, the primary ac power source should be 60 Hz. To operate equipment designed for other frequencies, a rotary or solid state static type power converter is used to change the frequency of the primary power.

d. Types of Uninterruptible Power Supply (UPS). In recent years increasing emphasis has been placed on power sources that can provide continuous, reliable power for critical communications requirements. The term "no break power" has come into general usage and is considered synonymous to UPS. Certain telecommunications subsystems and equipment require an uninterrupted supply of electrical power having specific voltage and current characteristics. Such equipment and subsystems make up the critical load, which must be isolated from power interruptions or fluctuations of any magnitude or duration. The characteristics of the critical load vary from one system to another. In some systems, the critical load requires 48 Vdc; in other systems, it requires a variety of dc voltages; and still others, it may require both dc and ac power. Many critical loads require ac only, usually at 120 or 208 Vac, and 50 or 60 Hz. There are several types of UPS configurations that can be used to provide continuous power to the critical bus. The need for uninterruptible power extends to both ac and dc equipment. Within these categories, the possible UPS are:

(1) Solid State/Static UPS (D1 and D4). As the name implies, the solid state ac UPS does not have any moving parts. Consequently, these versions are also called static systems. See figure 5-1. The basic solid

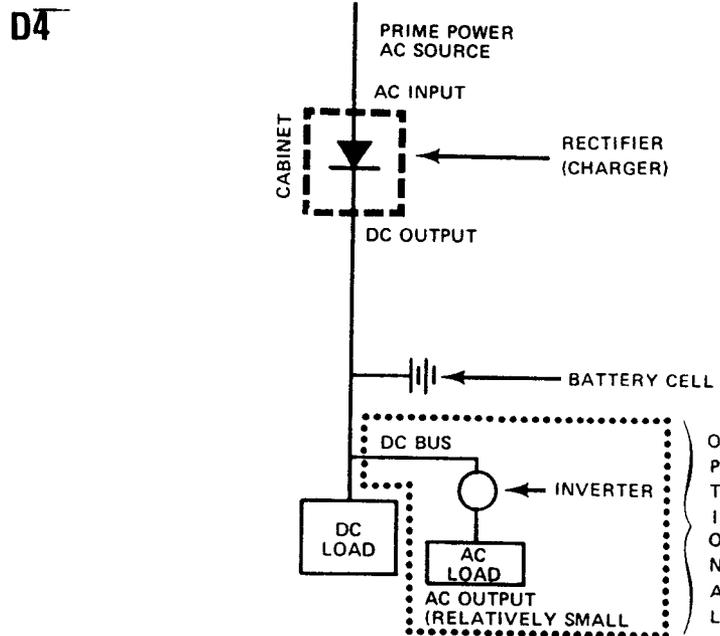
state UPS has a rectifier, floating battery (batteries kept in operating condition by a continuous charge at low rate), inverter, and the circuits required to connect and disconnect the UPS. See figure 5-2. During normal operation, the primary power is rectified to provide power to the inverter (a device that changes dc power to ac power) and to maintain the battery in a full state of charge. When a failure of primary power occurs, the battery provides the energy to the inverter until an auxiliary generator is put on line. There are five major types of solid state UPS briefly discussed below.



REPORT: ● BATTERY CELL (TOTAL NUMBER)
● RECTIFIER (CHARGER) AND INVERTER

NOTE: D1 IS TO INCLUDE THE RECTIFIER (CHARGER) AND INVERTER AS A SINGLE "SYSTEM" PROVIDING CONTINUOUS AC POWER TO A CRITICAL PREDOMINANTLY AC LOAD.

Figure 5-1. Example: UPS (D1)



REPORT: ● BATTERY CELL (TOTAL NUMBER)
● RECTIFIER (CHARGER)

NOTE: D4 IS TO INCLUDE A RECTIFIER (CHARGER) WHICH PROVIDES POWER TO A PREDOMINANTLY DC LOAD THROUGH A DC BUS. INVERTERS MAY BE ADDED TO THIS DC BUS FOR SMALL AC LOADS WHICH CANNOT OR DO NOT USE DC.

Figure 5-2. UPS (D4)

(a) Nonredundant UPS. The nonredundant, or single threaded, static UPS is the simplest system and has the three major sections only; the rectifier, battery and inverter. If the primary source fails, the battery must be sized to deliver the required amount of power to the inverter for a specified time. Upon restoration of normal ac power service, the rectifier must be large enough to provide sufficient dc power of the proper voltage to the inverter, and recharges the battery to its fully charged rating within a specified time. This system is the simplest and has the lowest cost. But, if a failure occurs or if it is dismantled for maintenance, an outage to the critical load will occur.

(b) Nonredundant UPS with Synchronous Bypass. System reliability is greatly enhanced by adding a static high-speed transfer switch and voltage regulator to the nonredundant UPS. With these additions, when an inverter output failure is sensed, the critical load is transferred to the bypass circuit in less than 5 milliseconds. The voltage regulator will provide very controlled voltage and current. The static bypass adds about 20 percent to the cost of a redundant system and provides eight to ten times more reliability.

(c) Nonredundant UPS with Standby Power Source. Since the length of time the UPS can sustain the critical load is determined by the capacity of the batteries, the system can be designed with sufficient capacity to allow time for a standby generator to come online. When only a small amount of critical ac power is required (less than 10 KVA), a common inverter powered from an existing or new battery facility of adequate capacity may be used. Typically, an inverter is connected to a floating battery system with automatic transfer and manual bypass circuits. For inverter failure, the automatic transfer relay connects the critical technical load to an ac bypass power source. A manual bypass is used to permit complete removal of the inverter from the system.

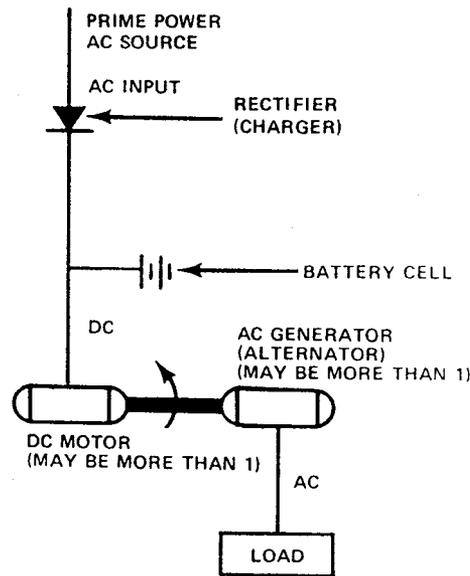
(d) Parallel (Redundant) System. This system has at least two UPS's operating in parallel. For protection, the output of each system is normally connected to the bus through a static interrupter. If an internal fault occurs within an inverter switch of either system, the appropriate static interrupter operates in a current limit mode until the output circuit breaker trips. This system is called redundant because each inverter has the capacity to feed the load with the other out of service. Under normal operation the inverters are load sharing; and during a fault condition, the maximum load change taking place is 50 percent of the system load. Redundant UPS may be configured with various combinations of units operating in parallel, such as three units on line with any two capable of carrying the load.

(e) Transfer Redundant. The installation of a static transfer switch, instead of the static interrupter switches, results in a transfer redundant system. In this system configuration, only one of the two inverters delivers power to the load. The two inverters are normally synchronized; and in case of failure of the other on line inverter, the static transfer switch transfers the load from the failing inverter to the standby inverter. Each inverter must be sized for 100 percent load change, and the transfer switch is in a series failure mode.

(2) Motor/Generator (M/G) Systems (D2). (See Figure 5-3.) This type of ac UPS uses batteries, instead of a flywheel, to store energy. M/G sets are only typically used at overseas AUTODIN facilities. In the M/G system, the ac input is converted to dc by a rectifier-charger. The rectifier (a device used to change alternating current to unidirectional current) is associated with a battery charger to keep the batteries at a constant level of charge. The rectifier also powers a dc motor, which in turn drives an ac generator to supply energy to the dc motor. The length of time the facility can sustain an outage depends on the battery capacity. Sufficient capacity may be installed to maintain the critical load long enough to bring an auxiliary power source on line.

(3) Rotary UPS Systems (D3). (See Figure 5-4.) This type of ac UPS mechanically stores kinetic energy in a flywheel for use during primary power failures or periods of deviations from normal voltage and frequency characteristics. To handle longer interruptions, a diesel engine can be incorporated into the flywheel system to drive the generator at constant

D2



REPORT: ● BATTERY CELL (TOTAL NUMBER)
 ● RECTIFIER (CHARGER)
 ● MOTOR-GENERATOR SET WITH KW RATING

NOTE: AC POWER INPUT IS RECTIFIED TO DC. THE BATTERY CELL KEEPS DC PRESENT WHEN AC INPUT IS LOST. THE DC MOTOR TURNS THE AC GENERATOR WHICH PROVIDES AC POWER TO THE LOAD.

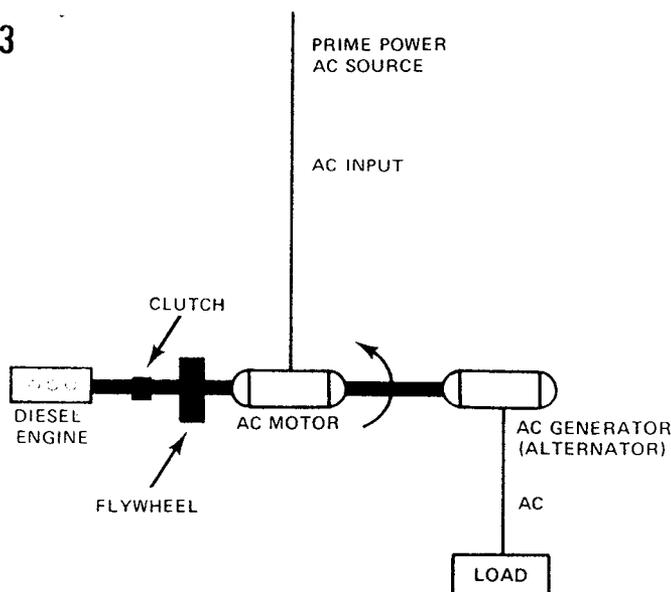
Figure 5-3. UPS (D2)

speed. The flywheel maintains the output of the generator during an interruption of primary power until the diesel engine starts, comes to speed, and takes the load. Because of the many disadvantages of the flywheel system, the current trend is to replace all rotary systems with solid state UPS.

e. Basic DC Battery System. During normal operation on primary power, the 48 Vdc load is supplied from the redundant pair of rectifier-chargers of sufficient capacity so that either can take the full load. These are in a load sharing arrangement, and each supplies about half the total load. For failure of either rectifier charger, the other assumes the total load automatically. For safety, the battery bank is connected permanently in parallel with the rectifier chargers and the load through fuses. It is kept fully charged by a small charging current from the rectifier chargers. The voltage is maintained with +/- 1 percent by fused, remote, battery voltage sensing leads and regulating circuitry inside the rectifier chargers. For an ac primary power failure, the battery bank maintains uninterrupted power to the loads for a specific period.

f. DC Counter Electromotive Force (CEMF) Cell Battery System. For loads not exceeding 200 amperes dc that require greater voltage control, the CEMF cell battery system is generally used. A CEMF cell is made up of silicon diodes in a series-parallel arrangement. At unmanned sites, an automatic low

D3



REPORT: ● DIESEL ENGINE GENERATOR SET WITH KW RATING

NOTE: DIESEL IS NORMALLY STOPPED. AC POWER INPUT DRIVES THE AC MOTOR; THIS TURNS THE BIG FLYWHEEL AND THE AC GENERATOR WHICH FEEDS THE LOAD. WHEN AC INPUT IS LOST, THE FLYWHEEL MOMENTUM KEEPS THE SYSTEM TURNING. THE CLUTCH ENGAGES, STARTING THE DIESEL ENGINE WHICH NOW TURNS THE WHOLE SYSTEM UNTIL AC INPUT RETURNS.

Figure 5-4. UPS (D3)

voltage disconnect relay should be used. As with the basic battery system, two rectifier chargers are used, each with the capacity to assume the full load. Remote battery voltage sensing, four-lead wiring, additional filtering, and transient peak limiting devices are also incorporated into the system.

g. End-Cell Battery System. The end cell method of load voltage is the most economical system for loads exceeding 200 amperes dc. The three main rectifier chargers are always connected directly across the load. During the normal operation, the load current flows directly from the rectifier chargers to the load without passing through the end cell switch, substantially reducing the duty cycle of this switch and almost eliminates the possibility of contact problems. The main rectifier chargers are also connected directly across the 23 cell main battery bank through the end-cell switch. It automatically actuates the end-cell switch and transfers the load from 23 cells to 26 cells. Upon full restoration of ac power, the main rectifier chargers recharge the 23 cell battery bank while simultaneously supplying current to the dc load.

h. Functions. DCS power sources may be configured to provide support to non-DCS functions; e.g., administrative offices, barracks, mess halls, non-DCS

communications facilities, etc., in addition to providing prime or backup power to DCS facilities. Conversely, non-DCS power facilities may provide prime or backup power to DCS facilities.

3. Station and Subordinate Name, S/C, Area, and O&M. Leave blank. Information will be entered by DISA from the Station Profile (figure 3-3).

4. Power Source Location. (Field size is 22 alphanumeric characters.) Enter the location of the power source. If a single structure houses two or more different types, i.e., DCS and non-DCS, or different classes or power (e.g., prime and backup generators), enter the location as often as necessary for each type and class as follows:

a. DCS. Enter the number of the structure housing the DCS power source. (If no number is assigned, assign one for identification purposes.)

(1) When there is more than one DCS facility at the same location sharing the same DCS power source, the DCS facility having custody/property accountability of the power-generating equipment will report the structure number. The other DCS facility(ies) sharing the DCS power source will report the location and the name of the organizational unit providing the power source; e.g., 1234 (location)/481 Signal Company (unit having custody/property accountability of equipment).

(2) Structure number entered in this file must cross-reference structure number and be assigned Facility Name "DCS Power" in the Room(s)/Van(s)/Shelter(s) section of the report (figure 4-1).

b. Non-DCS. Provide the location for non-DCS power sources as follows:

(1) Commercial. Enter the word "COMMERCIAL."

(2) Foreign government and U.S. Government non-DoD. Enter the geographic name of the location of the power source; e.g., London, Cheyenne Mountain, etc.

(3) DoD-owned power-generating equipment that is owned by a DoD owned organization other than the unit having O&M responsibility for the DCS facilities (i.e., Army Facilities Engineers (AFE), Director of Engineers Operations (DEO), Navy Public Works, or outside contractor). Enter the name of the unit and organization responsible for the power source.

5. Power Source Type.¹ (Field size is two alphanumeric characters.) Enter one of the following power type codes for each numbered source:

¹Use Figures 5-1 thru 5-4 in determining the correct power class for Uninterruptible Power Sources (UPS) in the Power Source file and in defining the Equipment Inventory file in support of DCS UPS Power Sources. If you cannot ascertain the correct power class, furnish a diagram and description of the system in question and a determination will be by DISA.

- A1 Prime ((Commercial) (see para 2b(1))
- A2 Prime ((DoD owned) (see para 2b(1))
- B1 Auxiliary to Backup Prime Source for Extended Outages (DoD owned) (see para 2b(2))
- B2 Backup ((Commercial) (see para 2b(2))
- B3 Backup Prime Source For Extended Outages (non-DoD-owned) (see para 2b(2))
- C1 Auxiliary to Power Source Technical Bus for Short-Term Outages ((DoD-owned) (UPS) (see para 2b(3))
- C2 Auxiliary to Technical Bus for Short-Term Outages ((non-DoD owned) (see para 2b(3))
- D1 Uninterruptible Source-Floating Battery (static, rectifier, inverter)
- D2 Uninterruptible Source-Floating Battery (dynamic, motor-generator)
- D3 Uninterruptible Source-Engine (kinetic flywheel)
- D4 Uninterruptible Source-Floating Battery (d.c. without inverters)

6. Types of DCS Facilities Supported. Field size is 14 alphanumeric characters.) Enter the Facility Name that is supported by the type of power source being reported. All Facility Names that are reported in the Station Profile (figure 3-3) under "Type of DCS Facility(ies) Maintained at Station" are to be identified at least once in the power source section with the exception of Facility Name "DCS Power."

7. Frequency (Hz). (Field size is two numeric characters.) Enter the operating capability in Hertz; e.g., 50, 60, etc., for the type of power source reported.

8. Total Kw Rated. (Field size is five numeric characters.) Enter the total Kw rating of all generators associated with the power source.

a. For commercial, foreign government, and U.S. Government non-DoD power sources, enter the total DCS load (in Kw) being presented to and satisfied by the power source.

b. If rating is in KVA, convert KVA to Kw by multiplying the power factor. For example, if the power factor is .8; Kw is equal to KVA x .8.

9. Total Ampere Hour. (Field size is four numeric characters.) For D1, D2, and D4 power sources only. Enter the total number of ampere hours that can be delivered by the battery configuration supporting the power source. For all generator type power sources enter a dash (-).

10. Source Number. (Field size is two numeric characters.) Enter a sequential number for each type of power source available. NOTE. The source number will be cross-referenced with all DCS power equipment reported in the Equipment Inventory file in conjunction with the Facility Name (e.g., DCS Power S01, DCS Power S02).

11. Items To Be Left Blank. The data elements listed below are not to be filled out. The data for these elements will be automatically transferred by computer from the DCS power-generating equipment data reported in the Equipment Inventory file (figure 8-1) in accordance with paragraph 3, chapter 8.

- a. Nomenclature.
- b. Description.
- c. National Stock Number.
- d. Manufacturer.
- e. Government-Owned Quantity.
- f. Spare Quantity.

12. Remarks. (Field size is unlimited.) Enter any explanation or clarification, special conditions, unusual circumstances, etc., that may apply to any power source identified.

UNCLASSIFIED

SERIAL NR - XXXX POWER SOURCE(S) - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCS(AR)N330-3 CHANGE REPORT XXX

PARENT STATION - XXXXXXXXXXXXXXXXXXXX SUBORDINATE STATION - XXXXXXXXXXXXXXXXXXXX S/C - XX AREA CODE - X O&M - XXXX
 (XXXXXXXX) (XXXXXXXX) (XX)

AS OF DATE - XXXXX
 DATE OF LAST CHANGE REPORT - XXXXX

----- POWER SOURCE -----

SOR NR	LOCATION	EQUIPMENT NOMENCLATURE	NAT'L STK NR	TYPE DESCRIPTION	MANUFACTURER	---	TYPE OF DCS FACILITIES) SUPPORTED	---	FREQ (HTZ)	---	TOTAL	---	---	---
XX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXX-XX-XXX-XXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

REMARKS: (OPTIONAL)

UNCLASSIFIED

PAGE XXX

Figure 5-5. Power Sources

UNCLASSIFIED

SERIAL NR - XXXA
 POWER SOURCE(S) - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCA(AR)N330-3 CHANGE REPORT NR 001
 AS OF DATE - YYMMDD
 DATE OF LAST CHANGE REPORT - YYMMDD
 PARENT STATION - MCKEES ROCKS DEPOT (MKSXSPT)
 SUBORDINATE STATION - MCKEES ROCKS DEPOT (MKSXSPT)
 S/C - PA AREA CODE - 1 O&M - DISA (D)

----- POWER SOURCE -----

SOR NR	LOCATION	EQUIPMENT Nomenclature	MANUFACTURER	DESCRIPTION	SEQ NBR	DCS FACILITY(IES) SUPPORTED	FREQ (HTZ)	---TOTAL--- KW RATED	AMP HRS	GOVT OMND	SP
01	COMMERCIAL			A1-PRIME (COMMERCIAL)	1	DDN-MILNET-PSN TECH CONTROL DSN-MMS MULTIPLEX	60	1225	-		
					2	DSN-MFS LOS					
02	1558			B1- BACKUP THE PRIME SOURCE FOR EXTENDED OUTAGES (DOD-OWNED)	1	DDN-MILNET-PSN TECH CONTROL DSN-MMS LOS	60	200	-		
		GMC V-16 NNSN		DSL ENG GEN SET 1000KW GENERAL MOTORS						2	0
03	1558			D1- UPS - FLOATING BATTERY (STATIC, RECTIFIER - INVERTER)	1	DSN-MFS	50	-	8		
		WAA5018 NNSN		INVERTER (DC-TO-AC) 500VA LORAIN PRODUCTS CORP	1					1	0
		ABSOLYTE II NNSN		BATTERY CELLS GNB IND BATTERY CO						69	0
		WAA101B NNSN		DC/AC INVERTER LORAIN PRODUCTS CORP						1	0

REMARKS: NONE

UNCLASSIFIED

Figure 5-6. Example: Power Sources

CHAPTER 6. TECHNICAL CONTROL/PATCH AND TEST

1. Instructions. Complete figure 6-1 in accordance with the following paragraphs and the instructions in the example in figure 6-2.
2. Station and Subordinate Name, S/C, Area, and O&M. Leave blank. Information will be entered by DISA from the Station Profile (Figure 3-3).
3. Facility Code. (Field size is three alphanumeric characters.) Enter the Facility (ENR) Code (as listed in chapter 23, DISAC 310-65-1) where DCS trunks terminate at the station. Complete a separate form for each Facility Code; e.g., NMI, TCF, RS1, etc.
4. Structure Number. (Field size is nine alphanumeric characters.) Enter the structure number where this particular Facility Code is located. If the station has a DCS Technical Control and/or Patch and Test Facility, this structure number must also be identified in the Room(s)/Van(s)/Shelter(s) file.
5. Room or Van Number. (Field size is six alphanumeric characters.) Enter the room or van number where the Facility Code is located.
6. Telephone Numbers. Enter the commercial and military telephone numbers for facilities as follows:
 - a. Commercial. (Field size is 24 alphanumeric characters.) Provide the complete civilian number, including area/country code and, if appropriate, the local extension number. If civilian operator dialing or ringing is required, give the number or name of the civilian switchboard.
 - b. DSN. (Field size is 24 alphanumeric characters.) Provide the complete military number including DSN area code and, if appropriate, the local extension number. If DSN number cannot be dialed directly, give the name or complete military number of the attended switchboard servicing the station and, if appropriate, the local extension number.
7. Direct Current (Digital) Standards. Enter all dc patching voltages, current, mark, and space (e.g., 120 60 P N, 60 20 P 0, 6 1 P N) for the Facility Code as follows:
 - a. Volts. (Field size is three numeric characters.) Voltage in volts.
 - b. Milliamps (Ma). (Field size is two numeric characters.) Current in milliamps.
 - c. Mark. (Field size is one alpha or numeric character.) The letter "P" (positive) or "N" (negative) or the numeric "0" (zero) to indicate the mark condition.
 - d. Space. (Field size is one alpha or numeric character.) The letter "P" (positive) or "N" (negative) or the numeric "0" (zero) to indicate the space condition.

e. Dash. A dash (-) for each element if dc standards do not apply for the Facility Code.

8. Transmission Level Points (TLP's). The relative level (in dBr) of any test point in a transmission system is defined as the power (in dBm) that should be measured at that point when a test signal of 0 dBr Transmission Level Point (TLP). Another point where a reading is -16 dBm is expected would be a "-16 dBr TLP." The relative level of a point is a function of system design. Specifically, it is a measure of design (or nominal) gain at 1004 Hz of the system, between the chosen reference point (known as the point of zero relative level or 0 dBr TLP), and the test point in question. Absolute measurements of the power of test signals at any point (i.e., dBm) are influenced by the expected level, as well as by any deviations within the signal path from its designed gain. Since field measurements are usually made either to check that the system is operating properly, or to adjust the system to its design values, it is convenient to eliminate the fixed effect that the relative level of the test point has on measurements. This has led to the practice of "referring readings to zero relative level" using the formula:

$$\begin{array}{rcl} \text{Measurement Referred} & & \text{Actual} & & \text{Relative Level of} \\ \text{to Zero Relative Level} & & \text{Measurement} & & \text{the Test Point} \\ \text{(in dBm0)} & = & \text{(in dBm)} & - & \text{(in dBr)} \end{array}$$

A measurement expressed in dBm0, therefore, is influenced only by departures of the system from its design value. For example, if a power of -15 dBm is measured at a -16 dBr TLP, the system has 1 dB excess gain.

$$+1 \text{ dBm0} = -15 \text{ dBm} - (-16 \text{ dBr})$$

It is often desirable to introduce a test tone into a system at other than zero reference level, usually at 10 dB below the relative level of the test point. For example, if the test point is at -16 dBr, the -10 dBm0 test tone should be introduced at a -26 dBm level. In a similar manner, noise measurements should also be "referred to zero relative level point" to permit measurements made at different test points to be readily compared. For example, a noise power measured as -55 dBm at a +7 dBr TLP should be expressed as $-55 \text{ dBm} - (+7 \text{ dBr}) = -62 \text{ dBm0}$. TLP values in dBr are based on their relationship to a zero TLP (a reference point in a circuit) at which the level is 0 dBm. A TLP is usually established at a patch panel within an intermediate transmission facility, or at a user's location. A TLP which is 16dB below the zero TLP would be -16 dBr. Signal levels are usually expressed in dBm0. A signal level of -13dBm0 as measured at a -2 dBr TLP would read -15 dBm, or -29 dBm at a -16 dBr TLP.

a. Baseband Send and Receive TLP's (dBr) and Impedance (ohms). (Field size is five alphanumeric characters each for send and receive TLP's.)

(1) Enter the send and receive baseband TLP's in dBr.

(2) Precede each level with the letter "N" (negative) or "P" (positive); three numeric characters for impedance in ohms followed by the letter "B" (balanced) or "U" (unbalanced) for each pair of send and receive

TLP's (e.g., N45 N15 75U). Repeat process until all applicable TLP's are identified. If TLP's do not apply, enter a dash (-) for each element.

b. Mastergroup Send and Receive TLP's (dBr) and Impedance (ohms). (Field size is five alphanumeric characters each for send and receive TLP's.) Enter the send and receive mastergroup TLP's in dBr according to the instructions given in paragraph 8a(2).

c. Supergroup Send and Receive TLP's (dBr) and Impedance (ohms). (Field size is five alphanumeric characters each for send and receive TLP's.) Enter the send and receive supergroup TLP's in dBr according to the instructions given in paragraph 8a(2).

d. Group Send and Receive TLP's (dBr) and Impedance (ohms). (Field size is five alphanumeric characters each for send and receive TLP's.) Enter the send and receive group TLP's in dBr according to the instructions given in paragraph 8a(2).

e. Cable Send and Receive TLP's (dBr) and Impedance (ohms). (Field size is five alphanumeric characters each for send and receive TLP's.) Enter the send and receive cable TLP's in dBr according to the instructions given in paragraph 8a(2).

f. Voice Frequency Send and Receive TLP's (dBr) and Impedance (ohms). (Field size is five alphanumeric characters each for send and receive TLP's.) Enter the send and receive voice TLP's in dBr according to the instructions given in paragraph 8a(2).

g. Circuit Send and Receive TLP's (dBr) and Impedance (ohms). (Field size is five alphanumeric characters each for send and receive TLP's.) Enter the send and receive circuit TLP's in dBr according to the instructions given in paragraph 8a(2)

9. Remarks. (Field size is unlimited.) Enter any explanation or clarification, special conditions, unusual circumstances, etc., that may apply to any TCX/PTF section identified.

UNCLASSIFIED
 SERIAL NR - XXXX
 TCX/PTF - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCS(AR)N330-3
 AS OF DATE - XXXXX
 DATE OF LAST CHANGE REPORT - XXXXX
 CHANGE REPORT XXX
 PARENT STATION - XXXXXXXXXXXXXXXXXXXX
 SUBORDINATE STATION - XXXXXXXXXXXXXXXXXXXX
 S/C - XX AREA CODE - X O&M - XXXX
 (XXXXXXXXXX) (XX) (CX)

TRUNK TERMINAL FACILITY CODE
 XXX
 STRUCTURE NUMBER
 XXXXXX
 ROOM OR VAN NUMBER
 XXXXX
 TELEPHONE NUMBERS
 COMMERCIAL
 XXXXXXXXXXXX
 AUTOVON
 XXXXXXXXXXXX
 DIRECT CURRENT (DIGITAL) STANDARDS
 VOLTS MA MARK SPACE
 XXX XX X X
 SEQ NR
 X

----- TRANSMISSION LEVEL POINTS -----

B A S E B A N D		M A S T E R G R O U P		S U P E R G R O U P		G R O U P	
SEND	REC	SEND	REC	SEND	REC	SEND	REC
DBR	IMP	DBR	IMP	DBR	IMP	DBR	IMP
XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX

C A B L E		V O I C E F R E Q U E N C Y		C I R C U I T S	
SEND	REC	SEND	REC	SEND	REC
DBR	IMP	DBR	IMP	DBR	IMP
XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX

REMARKS: (OPTIONAL)

UNCLASSIFIED

PAGE XXX

Figure 6-1. Technical Control/Patch and Test

UNCLASSIFIED

SERIAL NR - XXXA
 PARENT STATION - MCKEES ROCKS DEPOT (MKSXSPT)
 TRUNK TERMINAL FACILITY CODE TCF
 STRUCTURE NUMBER 20004
 ROOM OR VAN NUMBER R-76
 TELEPHONE NUMBERS --- COMMERCIAL AUTOVOX 412-555-6778 312-725-1116
 DIRECT CURRENT (DIGITAL) STANDARDS VOLTS MA MARK SPACE 60 20 N P
 SUBORDINATE STATION - MCKEES ROCKS DEPOT (MKSXSPT)
 S/C - PA AREA CODE - 1 O&M - DISA (D)
 DATE OF LAST CHANGE REPORT - YYMMDD
 CHANGE REPORT NR 001
 AS OF DATE - YYMMDD

TCX/PTF - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCA(AR)N330-3 CHANGE REPORT NR 001

----- TRANSMISSION LEVEL POINTS -----

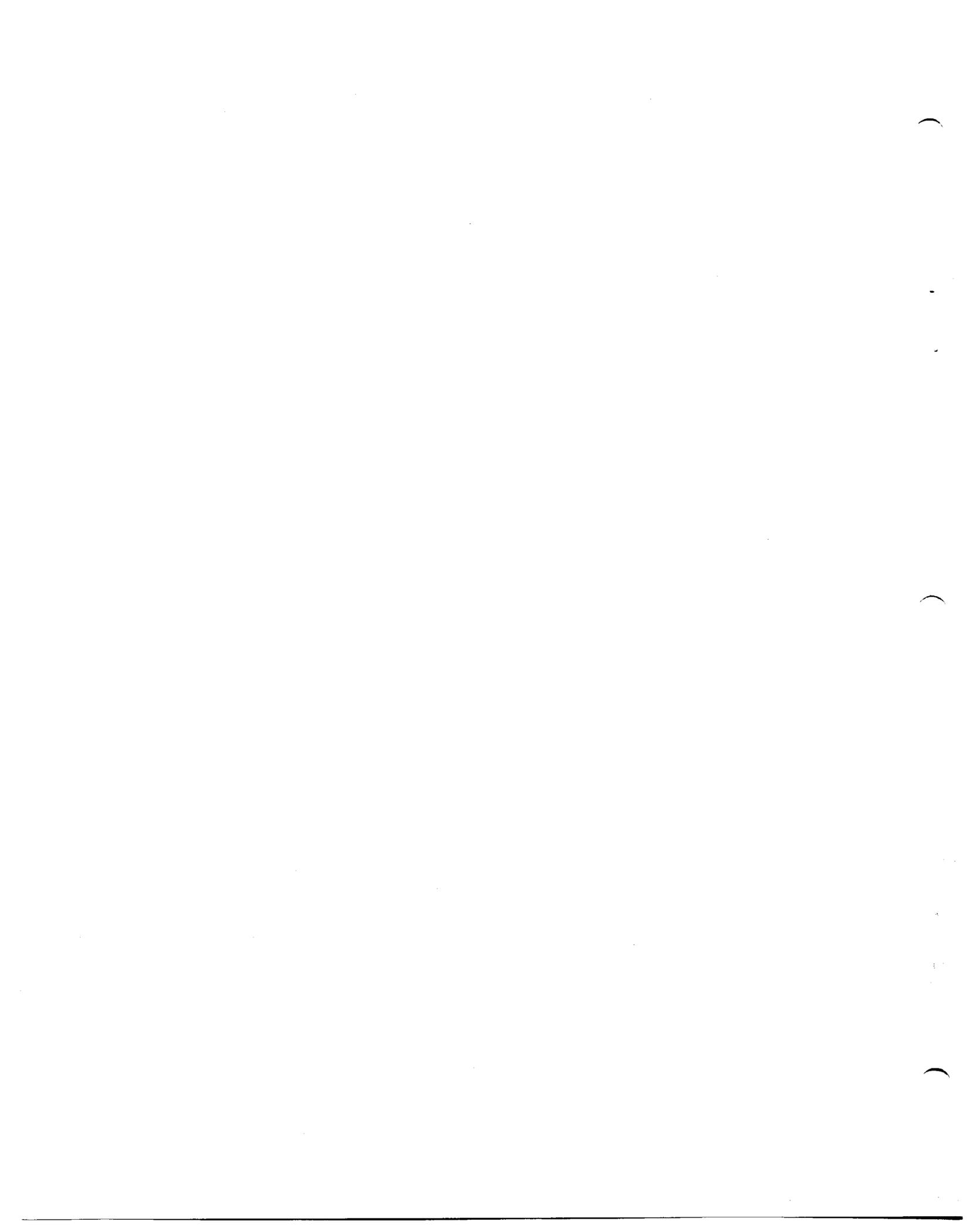
BASE BAND	MASTER GROUP			SUPER GROUP			GROUP		
	SEND DBR	REC OHM	IMP	SEND DBR	REC OHM	IMP	SEND DBR	REC OHM	IMP
N55	45	75U							

CABLE	VOICE FREQUENCY			CIRCUITS		
	SEND DBR	REC OHM	IMP	SEND DBR	REC OHM	IMP
0	0	0	600B	0	0	600B

REMARKS: NONE

UNCLASSIFIED

Figure 6-2. Example: Technical Control/Patch and Test



CHAPTER 7. DEFENSE SWITCH NETWORK (DSN)

1. Instructions. Complete figure 7-1 in accordance with the following instructions for stations having O&M responsibility for DSN switch(es), i.e., Multi-Function, End-Office, and/or Small End Office. Example is given in figure 7-2.
2. Parent and Subordinate Station Name, S/C, Area, and O&M. Leave Blank. Information will be entered by DISA from the Station Profile (Figure 3-3).
3. The file has been established where a minimum amount of data is required. Computer generated programs will calculate the total figures where required.
 - a. Facility. (Field size is 14 alphanumeric characters.) Enter the facility abbreviation from Table 1-1 of the DSN Switch(es), e.g., DSN-MFS, DSN-EO, etc. Separate forms should be used for every switch identified.
 - b. Nomenclature. (Field size is 20 alphanumeric characters.) Enter the nomenclature of the switch, e.g., DMS100/200, SL100, KN-101, etc.
 - c. Sequence Numbers (SEQ NR). (Field size is 2 numeric characters.) DISA area centers will enter this data.
 - d. Software Load Number. (Field size is 3 numeric characters.) Enter the last 3 digits of the installed software operating system.
 - e. Line Module (LM). (Field size is 4 numeric characters for each element.) Enter the number of lines appearing for engineered, wired, installed, and used.
 - f. Line Concentration Module (LCM). (Field size is 4 numeric characters for each element.) Enter the number of lines appearing for engineered, wired, installed, and used.
 - g. Trunk Module (TM). (Field size is 4 numeric characters for each element.) Enter the number of trunks appearing for engineered, wired, installed, and used.
 - h. Digital Trunk Model (DTM). (Field size is 4 numeric characters for each element.) Enter the number of trunks appearing for engineered, wired, installed, and used.
 - i. Digital Concentration Module (DCM). (Field size is 4 numeric characters for each element.) Enter the number of trunks appearing for engineered, wired, installed, and used.
 - j. Miscellaneous (MISC). (Field size is 4 numeric characters for each element.) Enter the number of trunks or lines appearing for engineered, wired, installed, and used.

k. Remarks. (Field size is unlimited.) Enter an explanation or clarification, special conditions, unusual circumstances, etc. that may apply to the DSN Switch, i.e., The MFS is a stand alone switch.

UNCLASSIFIED

SERIAL NR - XXXX DEFENSE SWITCH NETWORK (DSN) - FACILITY/LINK DATA (DCAC 300-85-1)
 RGS: DCS(AR)N330-3 CHANGE REPORT XXX
 AS OF DATE - YMMDD
 DATE OF LAST CHANGE REPORT - XXXXXX
 PARENT STATION - XXXXXXXXXXXXXXXXXXXX SUBORDINATE STATION - XXXXXXXXXXXXXXXXXXXX
 (XXXXXXXXXX) (XXXXXXXXXX)
 S/C - XX AREA CODE - X O&M - XXXX
 (XX)

FACILITY: XXXXXXXXXXXXXXXXXXXX NOMENCLATURE: XXXXXXXXXXXXXXXX
 SOFTWARE LOAD NUMBER: XXXX
 TOTAL SWITCH ENGINEERED CAPACITY: XXXXX
 TOTAL WIRED (HARD) CAPACITY: XXXXX
 TOTAL INSTALLED CAPACITY: XXXXX
 TOTAL USED CAPACITY: XXXXX
 TOTAL % OF INSTALLED CAPACITY USED: XXXX
 TOTAL PLUG-IN EXPANSION CAPABILITY: XXXXX
 TOTAL SWITCH EXPANSION CAPABILITY: XXXXX

MODULE STATISTICS:

-----TYPE OF MODULE-----						
	LINE MODULE (LM)	LINE CONCENTRATION (LCH)	TRUNK MODULE (TM)	DIGITAL TRUN MODULE (DTM)	DIGITAL CARRIER MODULE DCM)	MISC. (MISC)
ENGINEERED	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX
WIRED	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX
USED	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX
SPARE	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX
% INSTALLED USED	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX
EXPANSION PLUG-IN SWITCH	XXXXX XXXXX	XXXXX XXXXX	XXXXX XXXXX	XXXXX XXXXX	XXXXX XXXXX	XXXXX XXXXX

REMARKS: (OPTIONAL)

UNCLASSIFIED

Figure 7-1. Defense Switch Network (DSN)

UNCLASSIFIED

SERIAL NR - XXXA DEFENSE SWITCH NETWORK (DSN) - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCA(AR)M330-3 CHANGE REPORT NR 001

PARENT STATION - MCKEES ROCKS DEPOT SUBORDINATE STATION - MCKEES ROCKS DEPOT
 (MKSKSOPT) (MKSKSOPT)

AS OF DATE - YYMMDD
 DATE OF LAST CHANGE REPORT - YYMMDD
 S/C - PA AREA CODE - 1 O&M - DISA (D)

FACILITY: DSN-MFS NOMENCLATURE: DNS 100/200

SOFTWARE LOAD:
 NUMBER: 31
 TYPE:

TOTAL SWITCH ENGINEERED CAPACITY: 40000
 TOTAL WIRED (HARD) CAPACITY: 24000
 TOTAL INSTALLED CAPACITY: 9600
 TOTAL USED CAPACITY: 16000
 TOTAL % OF INSTALLED CAPACITY USED: 24%
 TOTAL PLUG-IN EXPANSION CAPABILITY: 0
 TOTAL SWITCH EXPANSION CAPABILITY: 0

MODULE STATISTICS:-----TYPE OF MODULE-----

	LINE MODULE (LM)	LINE CONCENTRATION (LCM)	TRUNK MODULE (TM)	DIGITAL TRUNK MODULE (DTM)	DIGITAL CARRIER MODULE (DCM)	MISC. (MISC)
ENGINEERED	4000	4000	4000	4000	4000	4000
WIRED	1500	1200	1400	1700	2000	1800
USED	750	600	700	850	1000	900
SPARE	750	600	700	850	1000	900
% INSTALLED USED	2500	2500	3000	2500	3000	2500
EXPANSION PLUG-IN SWITCH	0	0	0	0	0	0
	0	0	0	0	0	0

REMARKS: DSN-MFS IS A STAND ALONE SWITCH.

UNCLASSIFIED

Figure 7-2. Example: Defense Switch Network (DSN)

CHAPTER 8. EQUIPMENT INVENTORY

1. Instructions. Complete figure 8-1 in accordance with instructions in the following paragraphs and the examples given in figure 8-1.
2. Parent and Subordinate Station Name, S/C, Area, and O&M. Leave Blank. Information will be entered by DISA from the Station Profile (Figure 3-3).
3. Reportable Equipments. The equipments required to be reported for each DCS Facility as identified by DCS Facility Names are as follows:
 - a. Report only the single major end item(s) of equipment that make up the following DCS facilities:
 - (1) Digital Patch Access System (DPAS).
 - (2) Red Switch (RED SWITCH).
 - (3) Red Network Management Multiplexer (RED-NMM).
 - (4) DSN Multi-Function Switch (DSN-MFS).
 - (5) DSN End Office (DSN-EO).
 - (6) DSN Small End-Office (DSN-SMALL-EO).
 - (7) Automatic Voice Switch (AUTOSW).
 - (8) Manual Voice Switchboard (MANSWB).
 - (9) AUTODIN Switch (AUTODIN).
 - (10) *DDN (NETWORK) Packet Switch Node (DDN-(NETWORK)-PSN).
 - (11) *DDN (NETWORK) Terminal Access Controller (DDN-(NETWORK)-TAC).
 - (12) *DDN (NETWORK) Mini-Terminal Access Controller (DDN-(NETWORK)-MTAC).
 - (13) DISN Network Management Multiplexer (DISN-NMM).
 - (14) DISN Spine Router (DISN-SPINE-RTR).
 - (15) DISN POP Router (DISN-POP-RTR).

*The term "(NETWORK)" would be replaced by either; MILNET, DSNET1, 2, or 3.

b. Report the various equipments that make up the following DCS data switch facilities:

- (1) Automatic Digital Relay (AUTODIGTLRELAY).
- (2) Manual Digital Relay (MANDIGTRELAY).

c. Report the fiber optic communications set, transmitter and receiver equipment for the following DCS transmission facility:

- (1) Landline Fiber Optic Cable (LL FO CABLE).
- (2) Submarine Fiber Optic Cable (SUB FO CABLE).

d. Report radios, antennas, and passive reflectors for the following DCS transmission medium:

- (1) HF Receiver (HF RCVR).
- (2) HF Transmitter (HF XMTR).
- (3) Line-of-Sight Radio (LOS).
- (4) Tropospheric Scatter (TROPO).
- (5) **Leased (COMMERCIAL).
- (6) ***DSCS Earth Terminals (DSCS ET).

e. No equipment is required to be reported for the following facilities:

- (1) Landline Cable (LL CABLE).
- (2) Landline Coaxial Cable (LL COAX CABLE).
(For this facility, Pulse Code Modulation (PCM) equipment will be reported under the "MULTIPLEX" facility.)
- (3) Submarine Coaxial Cable (SUB COAX CABLE).
- (4) DDN MILNET Monitor Center (MC) (DDN-MILNET-MC).
- (5) DDN DSNET1 Monitor Center (MC) (DDN-DSNET1-MC).

**Leased (COMMERCIAL) antennas and radios will only be reported when they are for sole purpose of providing telecommunications service for the DCS.

***Equipment, upon acceptance by the O&M facility for satellite communication terminals, will be reported as the major component; i.e., AN/MSC-46, AN/FSC-78, etc. in addition, the subcomponents (including antenna by size) listed in Table 8-1 for the DSCS will be reported regardless of operational status.

- (6) DDN DSNET2 Monitor Center (MC) (DDN-DSNET2-MC).
- (7) DDN DSNET3 Monitor Center (MC) (DDN-DSNET3-MC).
- (8) DISA Network Ops Center (DISA-NOC).
- (9) DISA Area Communications Ops Center (DISA-ACOC).
- (10) DISN Network Management Center Ops Center (DISN-NMC-OC).

e. Report all analog and digital channel derivation equipment under the "DISN-MULTIPLEX" or "MULTIPLEX" Facility Name.

f. DCS Power. Report all U.S. DoD-owned reciprocating engine and battery systems (to include batteries, rectifiers, and inverters) that have been installed to solely support the DCS facilities and where the unit O&M of the DCS station has custody/property accountability.

g. Tech Control/Patch and Test Facility. Report timing and synchronization (T&S) equipment that supports the DCS facilities. T&S equipment required to be reported is as follows; Station Clock, e.g., Cesium Beam, Global Position System (GPS); Clock Distribution Subsystem (CDS), e.g., CDS-10; and Buffers, e.g., LDP2, LDP3, etc. The O&M will identify if no T&S equipment is located at the station and DISA will enter the appropriate canned statement.

h. Do Not Report: Test and Measuring Equipment, Spare Parts, Tool Kits, Communications Security (COMSEC) Equipment, or other sub-components or peripheral equipment which may be included in any of the above major end items of equipment, except as specified in table 8-1.

TABLE 8-1. Satellite Equipment

<u>Nomenclature</u>	<u>Description</u>
767H/MSC-46	Traveling Wave Tube Amplifier
VA925A/TSC-54	Klystron Tube HPA
VKX-7799B	Klystron Tube HPA
VKX7780E1/TSC-54	Klystron Tube LPA
VKX7753B/MSC-46	Klystron Tube HPA
792H/FSC-78	Traveling Wave Tube Amplifier
CV-3084	Frequency Upconverter
CV-3084A	Frequency Upconverter
CV-3085	Frequency Downconverter
CV-3085A	Frequency Downconverter
KY-801/GSC	Encoder/Decoder
MD-1002	Digital Data Modem
140D01G01	Filter Module - SENU Type 1
140D01	Filter Assembly - SENU Type 1
140D02G01	Filter Module - SENU Type 2
140D02	Filter Assembly - SENU Type 2
140D03G01	Filter Module - SENU Type 3
140D03	Filter Assembly - SENU Type 3
140D04G01	Filter Module - SENU Type 4
140D04	Filter Assembly - SENU Type 4
140D05G01	Filter Module - SENU Type 5
140D05	Filter Assembly - SENU Type 5
140D06G01	Filter Module - SENU Type 6
140D06	Filter Assembly - SENU Type 6
140D07G01	Filter Module - SENU Type 7
140D07	Filter Assembly - SENU Type 7
140D08G01	Filter Module - SENU Type 8
140D08	Filter Assembly - SENU Type 8
140D09G01	Filter Module - SENU Type 9
140D09	Filter Assembly - SENU Type 9
140D10G01	Filter Module - SENU Type 10
140D10	Filter Assembly - SENU Type 10
****61864070	Circuit Board CVSDVE
****61864140	Circuit Board DVSDVD
****61864060	Circuit Board TETREC
****61864130	Circuit Board TDECDR
****61864010	Circuit Board RCBURC
****61864160	Circuit Board SBNDND
TSEC/KG-81	
TSEC/KG-27	
TS-3642(v)1/G	Error Bit Analyzer (Digital Comm Test Set)
TS-3580()/G	Modem Test Set (Carrier Noise Test Set)
****TD-1147	Multiplexer Set
****TD-660	Multiplexer Set
AN/USC-28(V)	SSMA Satellite Comm set

TABLE 8-1. Satellite Equipment (continued)

<u>Nomenclature</u>	<u>Description</u>
****AN/FCC-98()	Multiplexer Set
****AN/GSC-24(V)	Multiplexer Set
T3-3642(V)1/G	Error Bit Analyzer (Digital Comm Test Set)
MD-921/G	Digital Data Modem
AM-7129/GSC-49	Klyston Tube HPA
AM-7242/GSC-52	Travelling Wave Tube RF Amp
CV-3665A/G	Frequency Upconverter (mini, programmable)
CV-3654A/G	Frequency Downconverter (mini)
CV-3655A	Frequency Upconverter (mini)
CV-3654A	Frequency Downconverter (mini)
CV-3710/GSC	Frequency Upconverter (AN/GSC-49)
CV-3709/GSC	Frequency Downconverter (AN/GSC-49)
OM-73	Modem, Mainframe
MD-1196G	Transmit Module (OM-73 subassembly)
MD-1195G	Receive Module (OM-73 subassembly)
C-11640G	Control Module (OM-73 subassembly)
****AN/FCC-100(V)	Multiplexer Set
KY-883/GSC	Encoder/Decoder
CV-3200/TSC-86	Frequency Downconverter
CV-3199/TSC-86	Frequency Upconverter
OM-55(V)1USC	SSMA Satellite Communication Subsystem
TSEC/KG-94	
TSEC/KG-84	

****To be reported under the "MULTIPLEX" facility.

3. Equipment Inventory.

a. Parent and Subordinate Station Name, S/C Code, Area Code, and O&M Code. Leave blank. Information will be entered by DISA from the Station Profile (Figure 3-3).

b. Master Equipment Reference List (MERL) Number. Leave blank. DISA will assign the MERL number.

c. Nomenclature. (Field size is 20 alphanumeric characters.) Enter the complete military (Joint Electronic Type Designation System (JETDS), formerly known as AN nomenclature) nomenclature of each reportable item of equipment. If the equipment being reported is not assigned a JETDS nomenclature, provide the commercial nomenclature. Include all letters, numbers, hyphens, slant bars, parenthesis, etc., in their exact sequence.

(1) If the equipment being reported is a variably configured item (i.e., the nomenclature includes a parenthetical letter "V"), ensure that the specific configuration held by the reporting station (generally identified by numbers or letters following the parenthetical "V") is reported.

(2) Identify all radios, antennas, power generators, and analog and digital derivation equipments by separate nomenclatures. If a single nomenclature includes more than one of these types of equipment (e.g., the nomenclature "AN/MRC-98" includes the radio, antenna, multiplexers, and power generator), use the major end item nomenclature to identify the radio portion of the system and use subcomponent nomenclatures to identify the antenna, multiplexer, and power-generating equipment.

(3) Equipment that has been locally fabricated in maintenance depots, etc., should be assigned a nomenclature by the holding unit (if not already assigned). Report as a locally fabricated item.

(4) If an equipment item is used in more than one facility, enter the same nomenclature on more than one line in order to separately identify the appropriate quantities and status and to identify the facility the equipment supports.

d. Description. (Field size is 28 alphanumeric characters.) Enter the designated description of the JETDS or commercial name of the item being reported. If the item has been locally fabricated, enter a brief descriptive name.

e. National Stock Number (NSN). (Field size is 13 alphanumeric characters.) Enter the assigned NSN, if any. Where no NSN was assigned, i.e., locally fabricated items, enter "NNSN" (No National Stock Number).

f. Manufacturer's Name. (Field size is 28 alphanumeric characters.) Enter the commercial manufacturer's full or recognized abbreviated name, e.g., RCA, Hewlett-Packard Co., etc., for equipment identified. DO NOT report the address of the company. If equipment is locally fabricated, enter the word "Local."

g. Total Number. The equipment totals entered in the next two columns will be the number of on-hand equipments in or principally for the Facility identified in the last column of each line in figure 8-1.

(1) Government-Owned. (Field size is three alphanumeric characters.) Enter the total number of Government-owned DCS items held by the reporting unit for use in the Facility identified. If none, enter zero (0).

(2) Leased. (Field size is two numeric characters.) Enter the total number of on-hand leased items. If none, enter zero (0).

Note: The sum of the Government-owned and leased equipment must equal the quantity under one or more of the status conditions columns; i.e., on-line, backup, standby, spare, and inoperative.

h. On-Line. (Field size is three numeric characters.) Enter the number of equipment items that are in a full-period, full-time, or daily part-time operational status to include hot standby equipment which is automatically and randomly switched on-line and off-line by internal equipment signal levels for the Facility identified in the last column. If none, enter zero (0).

i. Sequence Number (SEQ). (Field size is one numeric character.) DISA will assign the sequence number.

j. On-Line Link Identifiers (ID's). (Field size is 20 alphanumeric characters. Capability exists to enter up to 4 separate link identifiers per sequence number.)

(1) If the equipment item identified in the preceding nomenclature column is a radio, analog/digital multiplex, antenna, or passive reflector, enter the DCS link identifier(s) that the equipment supports.

(2) If the equipment identified in the preceding column is not a radio, analog/digital multiplex, antenna, or passive reflector, enter a single dash (-).

(3) If a zero (0) is entered in the on-line column, enter a dash (-).

k. Backup (BKUP). (Field size is three numeric characters.) Enter the total number of equipment items permanently allocated or reserved to back up a specified operational on-line capability but requiring MANUAL action (i.e., switching or patching) to be placed on-line. This equipment may be maintained in a hot or cold condition and may be placed on-line at the discretion of station personnel or by the direction of a higher authority. If none, enter a zero (0).

l. Standby (STDBY). (Field size is two numeric characters.) Enter the total number of equipment items permanently allocated or reserved which are in an operationally ready status; e.g., contingency links that are available to be manually placed on-line as directed by higher authority. This equipment may be maintained in a hot or cold standby condition. If none, enter a zero (0).

m. Sequence Number (SEQ). (Field size is one numeric character.) DISA will assign the sequence number.

n. Backup (BKUP)/Standby (STDBY) Link Identifiers (ID's). (Field size is 20 alphanumeric characters. Capability exists to enter up to 4 separate link identifiers per sequence number.) See para 3j(1), (2), and (3) above for listing link identifiers.

o. Spare (SP). (Field size is two numeric characters.) Enter the total number of equipment items that are available for use by station personnel to replace on-line equipment failures, for routine rotation of equipment for preventive maintenance, for temporary replacement of prime equipment for preventive maintenance, or as spare equipment available for the activation of new or increased on-line, backup, or standby capacity, capability, or service. Spare equipment may or may not be installed to patch panels, main frames, etc. If none, enter a zero (0). Equipment that supports the DCS and identified as "EXCESS", the quantity will be entered in this column. Enter in the "remarks" a statement identifying the equipment as "EXCESS".

p. Inoperative (INOP). (Field size is two numeric characters.) Enter the number of equipment items which have been or are expected to be inoperative for 30 days or longer. If none, enter a zero (0).

q. Facility Name. (Field size is 14 alphanumeric characters.) Enter the Facility Name exactly as it appears in the Station Profile in which the equipment is associated.

(1) For antennas, radios, and passive reflectors, enter the associated transmission medium Facility Name.

(2) List reportable equipments not located in an operational facility (e.g., maintenance spares, spares, equipment in supply or storage facilities) for the facility in which they are most likely to be used.

(3) The Facility Name "DCS Power", in the Equipment Inventory file, will be associated with the appropriate Power Source Number listed in the Power Sources file. List the Power Source Number with the Facility Name "DCS Power" as follows: DCS Power S02 indicates that the DCS power-generating equipment identified supports the Power Source Number 02 in the Power Sources file. Use the same Power Source Number as often as necessary to identify all power-generating equipment associated with the same power source.

(4) If one piece of equipment is used to support more than one facility, enter the Facility Name indicating where it is used the most. When there is more than one piece of like equipment being used to support more than one facility, enter the Facility Name with adjusted quantities indicating where the equipment is used the most.

r. Remarks. (Field size is unlimited.) Enter an explanation or clarification, special conditions, unusual circumstances, etc., that may apply to a piece of equipment reported; e.g., AS-2212/FRC is in an on-call status in support of links B7810, B8753, and B8754.

UNCLASSIFIED

SERIAL NR - XXXX EQUIPMENT INVENTORY - FACILITY/LINK DATA (DCAC 300-85-1) AS OF DATE - XXXXXX
RCS: DCS(AR)N330-3 CHANGE REPORT XXX DATE OF LAST CHANGE REPORT - XXXXXX

PARENT STATION - XXXXXXXXXXXXXXXXXXXX SUBORDINATE STATION - XXXXXXXXXXXXXXXXXXXX S/C - XX AREA CODE - X O&M - XXXX
(XXXXXXXX) (XXXXXXXX)

NERL/MARS NOMENCLATURE NUMBER	NAT'L STK NR	DESCRIPTION MANUFACTURER	GOVT LEA ON OWNED SED LINE	ONLINE LINK ID'S	BK UP SP	STD BY	BKUP LINK	STDBY ID'S	IN FACILITY	OP NAME	SEQ NR
XXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXXXX	XXXX-XX-XXX-XXXX	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

REMARKS: (OPTIONAL)

UNCLASSIFIED

PAGE XXX

Figure 8-1. Equipment Inventory

UNCLASSIFIED

SERIAL NR - XXXA
 EQUIPMENT INVENTORY - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCA(AR)N330-3 CHANGE REPORT NR 001 DATE OF LAST CHANGE REPORT - YMMDD AS OF DATE - YMMDD
 PARENT STATION - MCKEES ROCKS DEPOT (MKSKSDPT) SUBORDINATE STATION - MCKEES ROCKS DEPOT (MKSKSDPT) S/C - PA AREA CODE - 1 O&M - DISA (D)
 (42)

MERL NUMBER	NOMENCLATURE/ NAT'L STK NR	DESCRIPTION MANUFACTURER	GOVT LEA ON OWNED SED LINE	ONLINE LINK ID'S	BK UP SP BY	STD BY	BKUP LINK ID'S	STDBY OP NAME	FACILITY NAME	SEQ NR	
88NEQP	NO EQUIP REQUIRED	FOR FACILITY LISTED							PATCH/TEST	1	
13468	CDS-10 5895-01-129-2035	CLOCK DISTRIBUTION SYSTEM VERSITRON, INC.	1	0	1	-	0	0	0	TECH CONTROL	1
000153	LORAN C (RXER) 5825-01-165-8521	MASTER STATION CLOCK VERSITRON, INC.	1	0	1	-	0	0	0	TECH CONTROL	1
010045	C30 NNSN	PACKET SWITCH NODE BBN	1	0	1	-	0	0	0	DDN-MILNET-PSN	1
010045	C30 NNSN	PACKET SWITCH NODE BBN	1	0	1	-	0	0	0	DDN-MILNETPSN2	1
006125	GMC V-16 NNSN	DSL ENG GEN SET 1000KW GENERAL MOTORS	2	0	0	-	2	0	0	DCS POWER02	1
013410	ABSOLYTE II NNSN	BATTERY CELLS GNB IND BATTERY CO	69	0	0	-	69	0	0	DCS POWER03	1
013092	WAA501B NNSN	INVERTER (DC-TO-AC) 500VA LORAIN PRODUCTS CORP	1	0	0	-	1	0	0	DCS POWER03	1
002069	WAA101B NNSN	DC/AC INVERTER LORAIN PRODUCTS CORP	1	0	0	-	1	0	0	DCS POWER03	1
000386	DMS 100/200 NNSN	DIG MUX SYS TANDEM DSN SW NORTHERN TELCOM INC	1	0	1	-	0	0	0	DSN-MFS	1
002072	MODEL 424B NNSN	DIGITAL MUX/DEMUX MICROWAVE NETWORK INC	1	0	1	M3000	0	0	0	MULTIPLEX	1
002071	MICRONET 15 NNSN	DIGITAL M/W RADIO MICROWAVE NETWORK INC	1	0	1	M3000	0	0	0	LOS	1
012015	HP10-71GD 5820-00-465-3736	PARABOLIC DISH 10 FT	1	0	1	M3000	0	0	0	LOS	1
004430	IDNX 70 NNSN	NETWORK MGT MULTIPLEXOR NETWORK EXCHANGE TECH	1	0	1	-	0	0	0	DISN-NMM	1

PAGE 006

UNCLASSIFIED

Figure 8-2. Example: Equipment Inventory

CHAPTER 9. DCS LINKS

1. Complete figure 9-2 in accordance with the instructions in the following paragraphs and the example in figure 9-3.

2. General. All DCS links (transmission media systems) including radio, metallic, and fiber optic systems are required to be reported on figure 9-2 by the link identifier. (DCS links are defined in paragraph 2b(4), chapter 1.) Reporting of basic link data is mandatory on all DCS links.

3. Parent and Subordinate Station Name, S/C Code, Area Code, and O&M. Leave blank. Information will be entered by DISA from the Station Profile (figure 3-3).

4. Link Identifier. (Field size is 5 characters; one alpha and four numeric characters.) Enter the assigned DCS link number. DO NOT REPORT non-DCS link identifiers ending with any alphabetical character. Ensure that all DCS links terminated at the named station are identified and reported. Coordinate with the nearest DISA field activity, as necessary to ensure all links are properly and correctly identified in accordance with chapter 32, DISAC 310-65-1.

5. Technical Evaluation Program (TEP) Report Date. (Field size is five characters; three alpha characters for month and two numeric characters for year.) Enter the publication date of the TEP when reporting Microwave (M), Tropospheric (T), Diffraction (D), VHF/UHF (H), HF (B), and Satellite (S) type links; e.g., Jan 92, as provided on the TEP cover sheet. If no date is available, enter a dash (-). For all other type links, enter a dash (-).

6. Facility (ENR) Code. (Field size is three alphanumeric characters.) Enter the three alpha character Facility (ENR) Code as identified in the Station Reporting Guide for the link. Station Reporting Guides are distributed by DISA Area centers in accordance with DISAC 310-55-1. Facility (ENR) Codes can only be changed through the TSR/TSO process in accordance with DISAC 310-130-1.

7. Path Length. (Field size is five alphanumeric characters.) Enter the distance in statute air miles between the two link terminals.

8. Antenna Number. (Field size is two numeric characters.) Enter the assigned antenna or reflector number. If no antenna number has been assigned, enter one for identification purposes only.

9. Tower Number. (Field size is two numeric characters.) Enter the number of the structure supporting the antenna or reflector. Enter a dash (-) for HF antennas and self-supporting antennas.

10. Connecting Location. The reporting station is required to furnish information regarding the connecting location (distant end) of each link.

a. Station (STA). (Field size is eight alphanumeric characters.) Enter the name of the distant station where the link terminates. Use full spelling if contracted name is unknown; DISA will contract the same name, if

appropriate, for entry into the data base.

b. State or Country Code (S/C). (Field size is two alpha or two numeric characters.) Enter the standard DoD state or country code. If unknown, enter full spelling of state or country, and DISA will determine and enter the correct code.

c. Area Code (A/C). (Field size is one numeric character.) Enter the DISA area (see map in figure 1-2) in which the connecting location is located.

d. Operating and Maintenance (O&M). (Field size is two alpha characters.) From paragraph 4b(4), chapter 1, select and enter the code representing the parent organization responsible for O&M at the connecting location including, as appropriate, non-DoD codes.

e. Facility (ENR) Code. (Field size is three alphanumeric characters.) Enter the Facility (ENR) Code for the connecting location exactly as it appears in the Station Reporting Guide. (See paragraph 6, this chapter.)

11. Channel Capacity/Bandwidth. Enter the number of VF channels, cable pairs, etc., for analog systems or the composite bit rate for all DCS links as follows:

a. Radio Design. (Field size is four numeric characters.) Enter the total number of equivalent 4 Khz VF channels for analog systems and the maximum composite bit rate for digital systems that the installed radio in this link can accommodate according to the manufacturer's design specifications. For cable links without radios, enter a zero (0).

b. ¹Time Division Multiplex (TDM) Equipped Bits Per Second (b/s). (Field size is 12 alphanumeric characters.) Enter the total bit rate used on the link. Identify bit rate in kilo (k) or mega (M) bits; e.g., 1.544M, 15k, etc. If no bit rate is available, enter zero (0).

c. Voice Frequency Multiplex Equipped (VF MUX EQPD). (Field size is four numeric characters.) Enter the total number of equivalent four kHz VF channels which the link is capable of supporting as determined by the combination of operating equipment including multiplexers, demultiplexers, and any through group or supergroup channels. If the link terminal is a baseband, intermediate frequency, or radio frequency repeater, (i.e., no multiplexer equipment on the link at that location); enter the letters "BB", "IF", or "RF" accordingly. For hardwire cables, enter the number of equivalent four Khz VF channels being derived from the cable by cable carrier or other channel derivation (multiplex) equipment. If none, enter a zero (0).

¹A link can have quantities in the TDM (b/s) and the VF MUX equipped at the same time; e.g., three (3) riding the same link, one (1) trunk using TDM at 1.544 Mb/s and two (2) FDM trunks (nominal 4 kHz VF channels) equal to 24 VF channels. The entry for the link would read; TDM - 1.544M and VF MUX EQPD - 024.

d. Voice Frequency (VF) Terminated. (Field size is four numeric characters.) Enter the number of channels actually terminating in four kHz channel modules whether the channel is in use or is a spare. If no channels are terminated at the VF level, enter a zero (0). Do not include the number of subchannels, if any, derived from a single voice-quality channel by VFCT or other teletype channel derivation equipment. For hardware cables, enter the number of hardware pairs plus any additional VF channels derived from cable carrier or other VF multiplex equipment.

NOTE. A link can have quantities in the TDM (b/s) and the VF MUX equipped at the same time; e.g., three trunks riding the same link, one trunk using TDM at 1.554 Mb/s and two FDM trunks (normal 4 kHz VF channels) equal to 24 VF channels. The entry for the link would read; TDM - 1.554M and VF MUX EQPD - 024.

12. Antennas/Reflectors. All antennas and passive reflectors supporting DCS radio links including line-of-sight, tropospheric, satellite, and high frequency (HF) are required to be reported. All passive reflectors onbase and offbase will be reported by the unit having O&M responsibility for the passive reflector. (See Figure 9-1 for examples of antenna/reflector configurations.) If more than one antenna and/or passive reflector supports the same DCS link, enter the link number and report only items 12a through f (type through height). If the antenna/passive reflector is spare, enter the word "Spare" for link number. For landline, submarine, and fiber optic cables enter a dash (-) for fields listed in 12a through 13f. For each antenna/passive reflector complete the following:

a. Type. (Field size is 22 alphanumeric characters.) Enter the type of antenna or, if a reflector, enter the words "Passive Reflector" or "PSV BCK-to-BCK DISHES" (passive back-to-back dishes), as appropriate, e.g., parabolic dish, billboard, rhombic, horizontal or vertical log periodic, disconnect, etc.

b. Nomenclature. (Field size is 20 alphanumeric characters.) Enter the military (preferred) or commercial nomenclature of the antenna or reflector exactly as it is listed in the Equipment Inventory. (Figure 8-1).

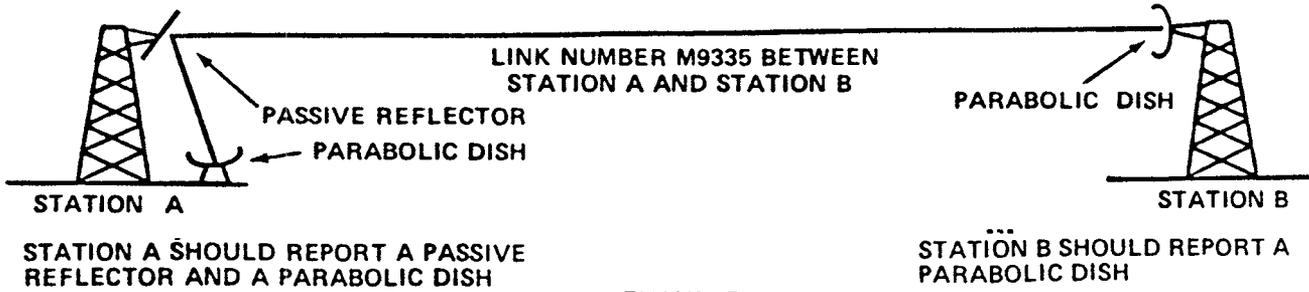
c. Coordinates--Latitude (Lat)/Longitude (Long). (Field name is six numeric characters and one alpha character for latitude; seven numeric and one alpha for longitude.) Enter the geographic coordinates of the antenna or reflector in degrees, minutes, seconds, and direction.

(1) Report all antennas and passive reflectors mounted on the same tower with the same coordinates.

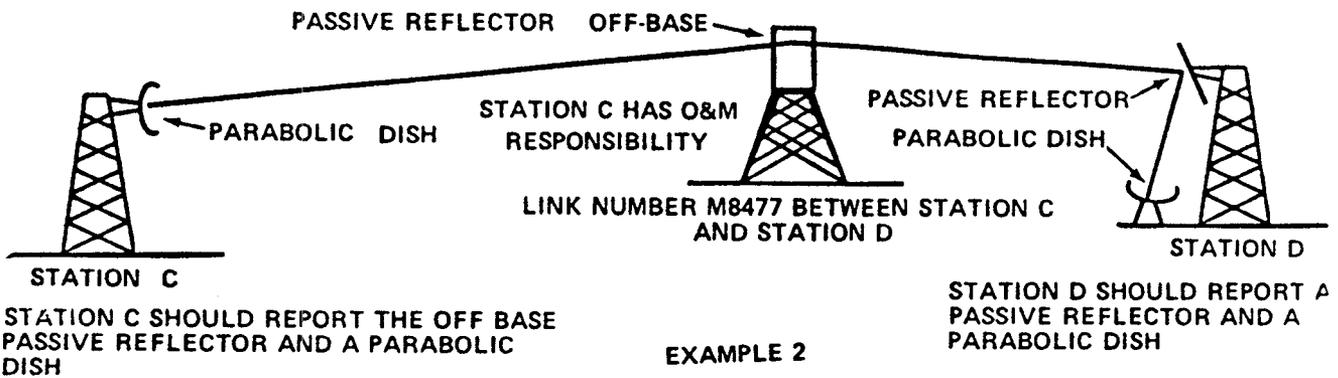
(2) Verify coordinates extracted from other records prior to submitting to the Facility/Link data base.

(3) Determine the coordinates to the nearest second.

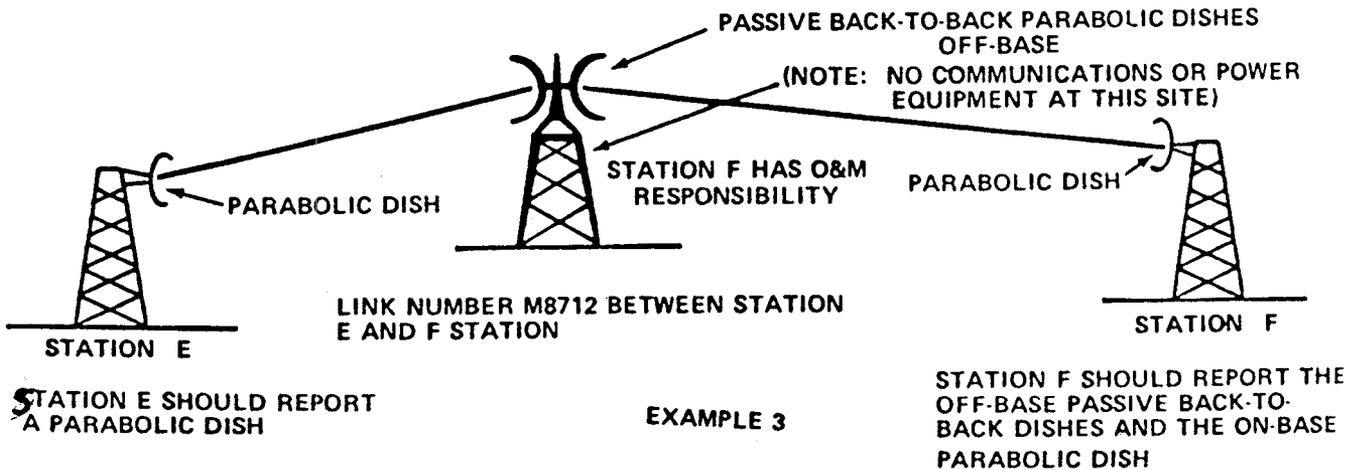
(4) For a large antenna (e.g., rhombic) provide coordinates from the center of the antenna.



EXAMPLE 1



EXAMPLE 2



EXAMPLE 3

Figure 9-1. Example: Antenna/Reflector Configuration

(5) Provide coordinates for the approximate center (midpoint) of antennas and reflectors that are within 100 feet of each other. If they are more than 100 feet apart, report different coordinates.

d. Size. (Field size is six alphanumeric characters.) Enter the size of the antenna or reflector in feet as follows:

- (1) Parabolic dishes: diameter.
- (2) Billboards: vertical dimension.
- (3) HF: enter a dash (-).
- (4) Others: vertical dimension.
- (5) Passive reflectors.

(a) Flat plane: height and width. Separate height and width with the letter "X"; e.g., 8X10.

(b) Corner (two-plane reflector): Enter the height and width of one plane. If planes are not the same size, enter the height and width of the smaller plane. Separate height and width with the letter "X"; e.g., 10X14.

(c) Passive back-to-back dishes: Report two back-to-back dishes separately. (NOTE. Quantities in the Equipment Inventory file (figure 7-1a) will also reflect each piece of equipment.)

e. USE. (Field size is one alpha character.) Enter how the antenna or reflector is used by the following letters:

- (1) "T" - transmit only.
- (2) "R" - receive only.
- (3) "B" - transmit and receive.

f. Height. (Field size is four numeric characters.) Enter the height in feet from ground level. Billboards, parabolic dishes, dipole arrays, plane reflectors, and monopole antennas are measured to the top of the emitting or reflecting surface array. All other antennas are measured to the highest point of radiatory element.

g. Leg Length. (Field size is four numeric characters.) Enter the leg length in feet for RHOMBICS only. Enter a dash (-) for all other antennas and reflectors.

h. Azimuth FM North (Degrees and Minutes). (Field size is five numeric characters.) Enter the azimuth from true north in degrees and nearest minute. If antenna is omnidirectional, enter "OMNI." If it is a steerable satellite antenna (SHF-DSCS) enter "STRBL." Enter a dash (-) for passive reflectors.

i. Tilt or Takeoff Angle. (Field size is six numeric characters.)

(1) Enter the tilt angle of HF antennas in degrees.

(2) Enter the takeoff angle of tropo antennas only in milliradians. Convert degrees and minutes to milliradians in accordance with the following formula: number of degrees times 60 (to convert degrees to minutes) plus number of minutes; multiply this sum by .2902 to determine the number of milliradians ((degrees X 60 + minutes) X .2902 = milliradians). E.g., if takeoff angle is 3 degrees, 15 minutes, then $(3 \times 60 + 15) \times .2902 = (180 + 15) \times .2902 = 195 \times .2902 = 56.589$ milliradians.

(3) Enter a dash (-) for all other antennas.

j. Frequency Range (MHz). (Field size is 12 numeric characters.) Enter the lower and upper limits of the frequency range of the antenna in megahertz. Enter a dash (-) for passive reflectors.

k. Gain. (Field size is three numeric characters.) Enter the center frequency range of the antenna in megahertz. Enter a dash (-) for passive reflectors. NOTE. The decimal point will be put in automatically.

l. Axis: Major/Minor. (Field size is four numeric characters for major axis; three numeric characters for minor axis.) Enter for RHOMBIC antennas only. Enter a dash (-) for all other antennas and passive reflectors.

m. Transmission Lines. Some transmission lines are composed of a number of segments of different types; e.g., open wire, tapered line, waveguide, etc. Enter up to three different types of transmission lines from or to a single antenna as follows:

(1) First Transmission Line.

(a) Type. (Field size is nine alphanumeric characters.) Enter the nomenclature. If nomenclature is unknown, enter the name of the type of line; e.g., waveguide, open wire, styroflex, etc.

(b) Ohms Impedance (IMP). (Field size is three numeric characters.) Enter the transmission line impedance in ohms; for a waveguide, this will be a termination device impedance.

(c) Length (LGTH). (Field size is four numeric characters.) Enter the length of the transmission line in feet.

(2) Second Transmission Line. Enter data for the second transmission line as described in paragraphs 12m(1)(a) through (c).

(3) Third Transmission Line. Enter data for the third transmission line as described in paragraphs 12m(1)(a) through (c).

(4) For passive reflectors, enter a dash (-).

13. Frequency Assignments (frequency in MHz/power in watts). Enter all send and receive operating frequencies assigned to each line-of-sight (LOS) and tropospheric (TROPO) link. For all other links enter a dash (-) in the fields. Complete as follows:

a. Send (MHz). (Field size is 10 numeric characters.) Enter the send frequency (RF) in megahertz (MHz) assigned to the link.

b. Emission. (Field size is eight alphanumeric characters.) Enter the frequency emissions designator; e.g., 3500F9 as in the assigned frequency-authorizing document. Frequency emission designators are defined in ACP 190.

c. Power. Enter authorized power and power in use in watts as follows:

(1) Authorized (AUTH). (Field size is five numeric characters.) Enter the maximum RF output in watts authorized by the frequency assignment document.

(2) In Use. (Field size is five numeric characters.) Enter the actual power in use in watts.

d. Authority. (Field size is 35 alphanumeric characters.) Enter the identity of the specific document that assigned the frequency(ies) to the link identified. Identify the type of document (letter, message, plan, etc.), the issuing organization (JCS-Joint Frequency Panel, CINCPAC, CINCEUR, etc.) and document date. If a message, enter date-time-group, month, and year for document date.

e. Receive (MHz). (Field size is 10 numeric characters.) Enter the receive frequency assigned to the link.

f. Emission. (Field size is eight alphanumeric characters.) Enter the emission designator authorized for the first receive frequency.

g. Additional Assigned Send and Receive Frequencies. If more than two send or receive frequencies are assigned to a single link, enter the same link number in as many additional vertical columns of figure 9-1 as necessary to enter data pertaining to all assigned send and receive frequencies.

14. Remarks. (Field size is unlimited.) Enter any clarification, special conditions, unusual circumstances, etc., that may apply to any link, antenna, or frequency identified.

UNCLASSIFIED

SERIAL NR - XXXX
 DCS LINKS - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCS(AR)N330-3 CHANGE REPORT XXX
 AS OF DATE - XXXXX
 DATE OF LAST CHANGE REPORT - XXXXXX
 PARENT STATION - XXXXXXXXXXXXXXXXXXXX SUBORDINATE STATION - XXXXXXXXXXXXXXXXXXXXXXXXXXXX
 (XXXXXXXXXX) (XXXXXXXXXX)
 S/C - XX AREA CODE - X O&M - XXXX
 (XX) (X)

LINK NR/DIR	XXXXX/X
TECH EVAL PROG (TEP)	XXX XX
FACILITY CODE (ENR)	XXX
PATH LENGTH	XXXXX
CONNECT LOCATION	XXXXXXXX XX X XX
STA, S/C, A/C, D&M	XXX
FACILITY CODE (ENR)	XXXX
CHANNEL CAPACITY	XXXXXXXXXXXXXX
RADIO DESIGN	XXXX
TDM (BPS)	XXXXXXXXXXXXXX
VF MUX EQPD	XXXX
VF TERMINATED	XXXX
ANTENNA/REFLECTOR	XX
NUMBER - ANTENNA	XX
TOWER	XXXXXXXXXXXXXXXXXXXX
TYPE	XXXXXXXXXXXXXXXXXXXX
NOMENCLATURE	XXXXXXXXXXXXXXXXXXXX
COORDINATES LAT/LONG	XX XX XX XX XX XX
SIZE	XXXXX X
USE	XXXX
HEIGHT	XXXX
LEG LENGTH	XXXX XX
AZIMUTH FM NORTH	XXXXXX
TILT OR TAKEOFF ANGLE	XXXXX.X-XXXXX.X XX.X
FREQ RANGE (MHZ)/GAIN	XXXX XX
AXIS-MAJOR/MINOR	XXXXXXXX XX XXX
TRANSMISSION LINE(S)	XXXXXXXX XX XXX
1 TYPE/OHM IMP/LGTH	XXXXXXXX XX XXX
2 TYPE/OHM IMP/LGTH	XXXXXXXX XX XXX
3 TYPE/OHM IMP/LGTH	XXXXXXXX XX XXX
FREQUENCY ASSIGNMENTS	XXXXXX.XXXX
SEND-1 (MHZ)	XXXXXXXXXX
EMISSION	XXXXX XXXXX
POWER-AUTH/IN USE (W)	XXXXXXXXXXXXXXXXXXXX
AUTHORITY	XXXXXX.XXXX
SEND-2 (MHZ)	XXXXXX XXXXX
EMISSION	XXXXXXXXXXXXXXXXXXXX
POWER-AUTH/IN USE (W)	XXXXXX.XXXX
AUTHORITY	XXXXXXXXXX
RECEIVE-1 (MHZ)	XXXXXXXX.XXXX
EMISSION	XXXXXXXXXX
RECEIVE-2 (MHZ)	XXXXXXXX.XXXX
EMISSION	XXXXXXXXXX

REMARKS: (OPTIONAL) UNCLASSIFIED PAGE XXX

Figure 9-2. DCS Links

UNCLASSIFIED

AS OF DATE - YYMMDD
 DATE OF LAST CHANGE REPORT - YYMMDD
 S/C - PA AREA CODE - 1 O&M - DISA (D)

DCS LINK - FACILITY/LINK DATA (DCAC 300-85-1)
 RCS: DCA(AR)N330-3 CHANGE REPORT NR 001
 SUBORDINATE STATION - MCKEES ROCKS DEPOT (MKSXSPT)

SERIAL NR - XXXA

PARENT STATION - MCKEES ROCKS DEPOT (MKSXSPT)

M3000/2
 MAY92
 TCL
 255
 DVDSHVLL 24 1 J
 TCF
 600
 45M
 000
 000
 05
 01
 PARABOLIC DISH
 HP10-71GD
 38 48 50N 076 53 20E
 10 B
 150
 046 19
 -
 -
 07125.0-07800.0 45.0
 -
 -
 WAVEGUIDE 50 285
 -
 -
 007235.0000
 2400F9
 10 10
 DAABOF-90-CU6 JUN 92
 -
 -
 -
 007750.5000
 2400F9
 -
 -

LINK NR/DIR
 TECH EVAL PROG (TEP)
 FACILITY CODE (ENR)
 PATH LENGTH
 CONNECT LOCATION
 STA, S/C, A/C, D&M
 FACILITY (ENR)
 CHANNEL CAPACITY
 RADIO DESIGN
 TDM (BPS)
 VF MUX EQPD
 VF TERMINATED
 ANTENNA/REFLECTOR
 NUMBER - ANTENNA
 TOWER
 TYPE
 NOMENCLATURE
 COORDINATES LAT/LONG
 SIZE USE
 HEIGHT LEG LENGTH
 AZIMUTH FM NORTH
 TILT OR TAKEOFF ANGLE
 FREQ RANGE (MHZ)/GAIN
 AXIS-MAJOR/MINOR
 TRANSMISSION LINE(S)
 1 TYPE/OHM IMP/LGTH
 2 TYPE/OHM IMP/LGTH
 3 TYPE/OHM IMP/LGTH
 FREQUENCY ASSIGNMENTS
 SEND-1 (MHZ)
 EMISSION
 POWER-AUTH/IN USE (W)
 AUTHORITY
 SEND-2 (MHZ)
 EMISSION
 POWER-AUTH/IN USE (W)
 AUTHORITY
 RECEIVE-1 (MHZ)
 EMISSION
 RECEIVE-2 (MHZ)
 EMISSION

REMARKS: NONE

UNCLASSIFIED

Figure 9-3. Example: DCS Links

1

2

3

4

5

6

7

CHAPTER 10. PREPARATION OF FACILITY/LINK DATA BASE CHANGE REPORTS

1. General.

a. Use of Printouts.

(1) Each DCS station reporting information in the Facility/Link data base is required to maintain reportable information in a current and accurate status. To ensure that each station is continually aware of its portion of the data base, copies of updated Facility/Link station reports will be furnished to each station as discussed in paragraph 7a(2), chapter 1, in accordance with the schedule in Table 1-2. Each updated printout automatically supersedes the preceding issue.

(2) It is strongly recommended that each reporting station use the printout as the master copy, annotating changes as they occur and recording the change number and date the change was submitted to DISA. This will greatly facilitate the review of the next printout received to ensure that all changes submitted were received and correctly entered.

b. Multiple Changes. Certain on-site operational changes have a repercussion or "ripple" effect throughout the Facility/Link data base; that is, a change in one section may demand changes in other sections to maintain consistency. For example, the activation (or deactivation) of a radio link requires multiple changes: Equipment Inventory (Figure 8-1)--add (or delete) the radio, antenna and, if applicable, the VF multiplex equipment; DCS Links (Figure 9-2)--add (or delete) the link and antennas and reflectors associated with the link.

2. When to Prepare Change Reports. It is mandatory that a report be submitted on each site at least once every 180 days, as follows:

a. A Facility/Link Data Base Change Report is required within five (5) working days when a site, facility (Switch), or link is activated or deactivated or when an organizational change is made.

b. A change report is required within fifteen (15) working days when changes in the status of equipment has occurred, building/room numbers changed, capacity of a link increased or decreased, etc.

c. A negative report. (no changes to the report have occurred.) is required within the 180 day cycle as established in Table 1-2. The negative report should be received at the appropriate DISA area at least 14 days prior to the end of the 180 day cycle.

3. Preparation of Change Report.

a. A Facility/Link data change must be completed to report any addition, deletion, or change to the Facility/Link data base. When a change applies to more than one section, all affected entries must be updated to reflect the change.

b. In the preparation of changes the station will submit annotated pages of the station's printout. Stations not having local reproduction capability should have their headquarters reproduce a copy of the station printout so a copy can be retained for reference purposes.

c. Change number: To ensure that the reported changes are received and accounted for, each station will submit reports beginning with the number "001" and continuing through "999" without regard to changing fiscal or calendar years. Each change report will be assigned the next sequential number. If the change report number sequence is broken, DISA will contact the affected station and take appropriate action.

d. Unknown data: If information needs to be entered but is unknown, a plus sign (+) should be entered.

e. Security classification: The security classification will be marked at the top and bottom of each page.

4. Report Processing.

a. The name, rank, and DSN number of the individual who prepared the change report, and certifies that the content is correct, should appear on a cover letter with the annotated pages attached.

b. Changes/Correspondence are to be forwarded by the appropriate submitting offices to the following DISA area address:

- (1) For WestHem/CA (DISA Areas 1, 2, 6, and 9) forward to:

Mailing: DISA, Attn: DOCA
701 S. Courthouse Rd
Arlington, Va 22204-2199
Message: DISA WASHINGTON DC//DOCA//
EMAIL: FAFLINKW @ CC.IMS.DISA.MIL

- (2) For Europe (DISA AREAS 3, 4, & 5) forward to:

Mailing: DISA-EUROPE, ATTN: DEEM
Unit 30403, APO AE 09131
Message: DISA EUR TSR-TSO-CRP TRAFFIC VAIHINGEN GE//DEEM//
EMAIL: FAFLINKE @ CC.IMS.DISA.MIL

- (3) For Pacific (DISA Areas 7 and 8) forward to:

Mailing: DISA-Pacific, Attn: DPIQ
Wheeler AAF, HI 96854-5000
Message: DISA-PAC WHEELER AAF HI//DPIQ//
EMAIL: FAFLINKP @ CC.IMS.DISA.MIL

(4) For Office Primary Responsibility (OPR) forward to:

Mailing: DISA, Attn: DOCP
701 S. Courthouse Rd
Arlington, Va 22204-2199
Message: DISA WASHINGTON DC//DOCP//
EMAIL: FAFLINKM @ CC.IMS.DISA.MIL

