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## OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

COMMUNICATIONS.  
COMMAND. CONTROL.  
AND INTELLIGENCE

19 FEB 1980

Mr. Thomas J. Ziglinski  
General Accounting Office  
441 G Street, N.W., Room 5814  
Washington, D. C. 20548

DECLASSIFIED IN FULL  
Authority: EO 13526  
Chief, Records & Declass Div, WHS  
Date: JUN 11 2015

Dear Mr. Ziglinski:

The internal DCA "Fact Sheet" dated 18 December 1979, which you requested as documentation for the GAO Evaluation of Single and Multichannel Satellite Terminal Subsystems (GAO Code 941186) is hereby forwarded. Please note that this paper is a cursory summary of a very complex program and should be used accordingly.

Sincerely,

George L. Salton  
Director, Communications Systems

Enclosure

Fact Sheet - ~~CONFIDENTIAL~~

Office of the Secretary of Defense 50 U.S.C. § 552  
Chief, RDD, ESD, WHS  
Date: 11 JUN 2015 Authority: EO 13526  
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13-M-4723

SUMMARY  
FOR  
DEFENSE SWITCHED NETWORKS MEETING  
18 DEC 79

DSCS SUPPORT OF GROUND MOBILE FORCES SATELLITE COMMUNICATIONS (U)

J) SUMMARY: In a memorandum for the Secretary of the Army, dated 31 Jan 79, the Deputy Secretary of Defense approved use of the DSCS space system to support GMF communications requirements. The GMF community now has over 30 satellite terminals supporting various testing, training and exercise efforts. The total programmed procurement of GMF terminals is 356.

FACTS/DISCUSSION:

(U) 1. GMF requirements for DSCS access have been satisfied on a case-by-case basis using spare satellite capacity. This was because GMF accesses were considered temporary, and not justifying permanent access in support of training, testing or exercise requirements.

(U) 2. Although general GMF requirements are listed in the MSO User Requirements Data Base, DCA requires more detailed information such as terminal locations, frequencies and up/down link configurations in order to accurately assess the operational capabilities or limitations of the DSCS to support all validated users.

(U) 3. The GMF community, on the other hand, desires the autonomy to relocate terminals, change frequencies and system configurations as the situation demands, and not be hindered by the need to receive a DCA assessment and JCS approval each time changes are desired.

(U) 4. DCA recognizes the GMF community need for autonomous operations; however, overall control responsibility must remain with DCA because of the adverse impact decentralized control would have on other users. Additionally, the GMF community now desires permanent, full-time access and the JCS informally advised DCA that they support permanent access rights for GMF.

(U) 5. As a partial answer to the GMF requirement for permanent, full-time access, DCA has provided a temporary allocation of satellite power in the Atlantic and Indian Ocean DSCS satellites for use by the GMF community.

(U) a. The temporary allocation of 70% of the Indian Ocean satellite will provide up to 162 full duplex channels.

(U) b. The temporary allocation of 20% of the Atlantic satellite will provide up to 96 full duplex channels.

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(U) 6. The GMF community have their own subsystem control network to operationally direct GMF terminals within whatever power and bandwidth are allocated to them. Direct orderwire and data connectivity between the DCA and GMF control subsystems enables DCA to monitor the GMF subsystem control effort and would enable DCA to assume control for GMF if necessary.

(U) 7. GMF terminals are able to operate independently of the DSCS terminal group except during periods when interoperability is required with the DCS. In that event, GMF-compatible modulation and baseband equipment is collocated at selected DSCS earth terminals (GMF gateway terminals) to provide DCS connectivity. An anti-jam capability is considered for the long-term, post-1983.

(U) 8. In response to recent delays and limited support of the GMF community, the JCS has tasked DCA to perform the necessary studies and engineering analysis to determine if the capability exists or must be obtained from other MILSATCOM systems to accommodate the GMF user requirements. The purpose of the tasking is to develop procedures regarding all MILSATCOM satellite frequency, power and bandwidth allocations which will culminate in a JCS policy for GMF satellite access. Target date for the JCS policy is April 1980.

(U) 9. When the DSCS III satellites become available, the GMF community will be authorized to use the channel two transponder and associated gimballed dish antenna. With exception of WHCA and contingency support, the GMF users will have exclusive use of the channel two transponder on all four operational DSCS III satellites. The extent to which GMF requirements can be supported on the DSCS III satellite depends on the deployment of GMF terminals in each satellite area, the mix of terminals (8 and 20-ft antennas) and whether the voice rates are transmitted at 16, 32 or 48kbs.

(U) 10. The general war GMF requirements for over two thousand duplex voice channels in one area cannot be supported by the currently approved four operational satellite space segments. Therefore, OSD(C<sup>3</sup>I) advised GMF to plan on use of spare satellites subject to JCS approval in support of contingency or general war requirements. As delineated in MOP-178, JCS also established a user requirement priority sequence to determine apportionment of MILSATCOM systems capacity and will control critical use of DSCS capacity under contingency situations.

) RECOMMENDATION: None; for information purposes only.

Prepared by:

*C. E. Ehrlich*  
LtCol C. EHRLICH  
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