

UNITED STATES GOVERNMENT

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Memorandum

OCE M75-223

TO : Director of Communications

DATE: 05 JUN 1975

FROM : Chief, Communications Engineering

SUBJECT: Monthly Narrative Summary Report - May 1975

1. The CDS space renovation plans were completed by the Architectural Design Staff and Headquarters Engineering Branch and were released to prospective bidders. Bids are expected to be received on 3 June, and a contractor selected by 10 June. Meanwhile, sample messages and dissemination profiles are being prepared for use in system testing and debugging.

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2. The ARS-III equipment has been received at [redacted] without damage. The installation is scheduled to begin on 21 July pending the completion of the UCPS installation. The proposal for the ARS-V will be submitted by [redacted] on 3 June.

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3. The AFT concept paper was distributed to components of OC for their review. Comments received are being incorporated into the AFT procurement specification presently being prepared for distribution to prospective bidders by 1 July. As part of the study of prospective AFT equipment, [redacted] will loan us their [redacted] Optical Character Reader for evaluation during the period, 9 - 20 June. Further, they agreed to work closely with us in TEMPEST-proofing a pre-production model in August and then swapping that unit with the procured production unit when it becomes available.

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4. [redacted] - Major efforts of this month concentrated on [redacted] system performance assessment by [redacted] and Headquarters personnel. [redacted] and [redacted] Systems were found to be in a full operational status. The [redacted] FR-2000 tape recorders, while operational, were considered marginal. [redacted] was requested to modify the [redacted] recorders with the

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Acculoop modification which should improve the reliability of these recorders. This was accomplished with a second trip to [REDACTED]. All recorders are now in a fully operational condition. A three-week training course was conducted by Telcom for three GCS technicians.

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5. SG-75 Low Level Modification - The [REDACTED] T&I facility has been assisting in developing the modification procedures to convert the SG-75A to the noise reduction B model. The Repair and Return Section reported that the two Agency modified units modified will not meet performance specifications. Using an expanded tuning procedure, one modified SG-75A was brought up to full specification. Further efforts are required to resolve and establish a final tuning procedure for this conversion.

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7. The field survey to identify the costs and complications associated with moving the [REDACTED] R-Site from the [REDACTED] to the [REDACTED] at [REDACTED] has been completed. Preliminary indications are that the move is feasible, albeit expensive and time-consuming. [REDACTED] at [REDACTED] were helpful and optimistic about the prospects of such a relocation should it become necessary.

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8. Funding has been provided for antenna improvements [REDACTED] T-Site. The progress on the [REDACTED] seawall remains stifled and slow.

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9. The base station power plant switchgear training exercise at [REDACTED] has been completed. The [REDACTED] power specialist returned to CONUS to participate in this activity.

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25X1A 10. Subsequent to OD&E notifying OC that the launch of [redacted] was rescheduled for 4 June 1975, word was received that a loose bolt was discovered on the launch vehicle during final pre-launch checkout causing a further 10- to 15-day delay. Our GCS stations are all checked and ready for the launch when it occurs. Mr. [redacted] OC-E/SED Engineer, is at [redacted] with an [redacted] representative to complete work on their recorders. 25X1A9a 25X1A5a1

25X1A 11. The first six production SV-8 Secure Voice units have been checked out by the Quality Assurance Branch/CED, and the production of 50 additional units has been authorized. Sufficient units for initial field deployment are scheduled for July/August availability. The technical problems associated with the [redacted] Digital Paging Unit have been resolved. The remaining vendor-supplied items are either on the shelf or are in shipping channels. The SV-8 Operation & Service Manual is being prepared by the Documents Section and will be ready for deployment with the system.

25X1A5a1 12. Meetings were held on 13 and 21 May between COD and [redacted] representatives to determine the quantities of RS-59 components required to make 50 issuable RS-59 systems available over the period of the next three years. As the month ended, \$250,000 of FY-75 funds had been approved for external procurement of this equipment.

13. The test report for the SX-6 spread spectrum transceiver was received from DIVD indicating the unit's signal was easily detected. Clear speech is present on the harmonics and the spread spectrum coding scheme was recovered, enabling real-time recovery of the clear text. A memorandum concerning this report is in preparation.

25X1A5a1 14. Efforts have continued to have a pair of SV-4 systems sent to [redacted]. Since the KY-28 is a cryptographic device, approval from OC-CS is required. These SV-4's are needed to correct a problem in the RU-523 repeater.

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16. Partial shipments of the TE-40 [redacted] test equipment system were made during the week of 30 May, to [redacted] shipment is scheduled for the week of 1 June. These partial shipments consisted of the oscilloscope with spectrum analyzer plug-in, the power module with multimeter, counter and function generator plug-ins, and the FM/AM signal generator. The power supplies are expected to follow in two to four weeks. The instruction manual for the system is well under way, a rough draft being expected in two to four weeks. The accessory kit should be ready for shipment soon. Project initiations for in-house production of all test kits used with the TE-40, with the exception of the RS-708 is under preparation.

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17. The Class C evaluation of the [redacted] and the [redacted] UHF receivers and transmitters (SV-8 modules) is now 90% completed. The [redacted] transmitter, after twice being returned to the vendor, failed in a +60°C environment and did not return to operating status when returned to room temperature. The [redacted] transmitter is not meeting specifications.

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19. The Cesium Beam primary and Rubidium Vapor secondary Standards were received, accepted and are being clocked for accuracy by the Coast Guard to the National Bureau of Standards.

20. The KOI-16 (KW-7 Card Reader) testing program was completed this month. There were 1,413 units tested with only 202 minor failures detected and corrected. A test program was written and a fixture made in house for use on the ATE (FIXIT), which made it possible to test the KOI-16 in a fraction of the time compared to the conventional method. When failures first surfaced, it required two technicians 35 minutes to test a single unit. After the FIXIT program was devised and used, a non-technical employee could test a unit in five minutes. The time saved for the entire program was approximately ten man-months.

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21. Three urgent requirements for portable transceivers were processed this month. One requirement was in support of the [REDACTED] refugee program in [REDACTED] the second was for the [REDACTED] and the third was in support of President Ford's recent trip to Europe.

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