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DEPARTMENT OF THE AIR FORCE
MANNED ORBITING LABORATORY, SYSTEMS OFFICE (OSAF)
AF UNIT POST OFFICE, LOS ANGELES, CALIFORNIA 90045



7 MAR 1969

MEMORANDUM FOR GEN STEWART

SUBJECT: MOL Monthly Management Report

Attached is the MOL Monthly Management Report for the period
26 January - 25 February 1969:

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Report

J. S. Byemaier
J. S. BYEMAIER
Major General, USAF
Deputy Director, MOL

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PAGE 1 OF 1 PAGES

3

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MOL Monthly Management Report
26 January - 25 February 1969

I. Program Management

A. Upgrade Activity - Negotiations with the General Electric Corporation were completed on 13 February with agreement on a target cost of \$492,870,000 and an 8.5% fee. [REDACTED] capability is included in the contract. Delivery of the McDonnell Douglas-Eastern Division (MDAC-ED) proposal has continued on an incremental basis with delivery of the final increment expected not later than 15 April. The Western Division of McDonnell Douglas (MDAC-WD) has slipped the delivery date for its proposal to 31 March. The United Technology Center proposal was received by the Systems Office on 5 February and is being evaluated. Negotiations with United Technology, Martin Marietta Corporation, and Aerojet General Corporation are all scheduled to begin prior to mid-March, while a proposal from AC Electronics, the remaining TIIM associate contractor, is anticipated by 18 March. Delivery of the Eastman Kodak Corporation's proposal remains scheduled for 20 June.

B. Labor Dispute at McDonnell Douglas - Settlement of the labor dispute between McDonnell Douglas-Eastern Division (MDAC-ED) and the International Association of Machinists was reached on 14 February and the MDAC-ED workers returned to work on 17 February. The strike had no significant impact on the MOL Program.

C. MOL Independent Safety Review Board - The MOL Independent Safety Review Board conducted a review of the McDonnell Douglas-Eastern Division (MDAC-ED) Dual Gas System Test Facility and test procedures in St. Louis on 27 and 28 January. Colonel Swan, chairman of the review board, briefed the Systems Office attendees on the board's findings and has subsequently submitted a preliminary written report to the Systems Office. Based on this information, the Systems Office does not anticipate a requirement to make significant changes in the test facility or test procedures. The board will publish a final report following an additional review of the test facility.

D. Cost/Schedule Planning and Control System (C/SPCS) - A schedule for completing formal review of the General Electric and McDonnell Douglas-Western Division C/SPCS system is being finalized. The proposed date for the initial GE demonstration is 12-23 May and the redemonstration at MDAC-WD is scheduled for 16-20 June. This schedule takes into consideration the extended submission date for the MDAC-WD proposal (31 March), preliminary completion of the GE negotiations, and the availability of Lt Col Driessnack as Demonstration Team Chairman. Confirmation of this schedule is being coordinated with contractors involved.

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E. Systems Office Visitors - General Ryan, Vice Chief of Staff; Dr. Flax, Assistant Secretary for Research and Development; and Mr. Nevin Palley of the DDR&E office visited the Systems Office during February. Systems Office personnel briefed Dr. Flax and Mr. Palley on the current status of the program on 11 February and 19 February respectively. The presentation to General Ryan was designed to provide basic familiarization with the MOL Program, as well as a synopsis of current status.

F. FY 1969-70 Funding Status - As was discussed at the PRC on 11 February 1969, letters have been prepared for dispatch to all associate contractors to confirm discussions between the Program Managers and the Deputy Director on 6-7 February at Cape Kennedy. Associate contractors are being advised of the funding level they can expect for the balance of Fiscal Year 1969. In addition, it is being pointed out that on the basis of their stated requirements for Fiscal Year 1970, when compared to an assumed budget figure of \$576M, requirements exceed availability by 31%. The contractors are being directed to review their requirements and provide an assessment of the impact on the program. An additional meeting will be scheduled in the near future to further discuss what, if any, adjustments should be made to the program for Fiscal Year 1970.

G. System Effectiveness Audit - The Systems Office has begun a System Effectiveness Audit of the Laboratory Vehicle contractors. The audit team completed a survey of McDonnell Douglas-Western Division during the period 3-7 February and began an audit of General Electric Corporation on 24 February. The total audit is scheduled for completion in April, and a report of findings will be published at that time.

H. Vandenberg AFB Construction Status - A team headed by Col Andrews, Director of Civil Engineering, Hq AFSC, was formed to investigate the status of Space Launch Complex-6 (SLC-6) construction following a report from the Corps of Engineers (Los Angeles District Office) that completion of SLC-6 construction would slip to 1 November with a cost increase of \$3.5M. Col Andrews briefed Systems Office personnel on the results of the investigation and recommended establishment of a 1 September completion date for SLC-6 construction. This recommendation was based on the assumption that the required \$3.5M would be available by mid-May 1969 and that the Electromagnetic Interference Testing would be conducted by the SLC-6 integrating contractor, instead of the construction contractor. The Systems Office concurred with the recommended change in schedule.

On 25 February, construction of Package 2 of the launch complex facilities was 84.1% complete. The Mobile Service Tower, which paces the completion of this package was 56% complete on that date. Packages 3 and 4 were 99% complete with only the power plant remaining to be completed. Package 1 of the MOL Support Facilities at VAFB was approximately 69% complete on 25 February. The bids for Package 2 of the Support Facilities were opened on 13 February and a contract for this work was awarded to the Collins and Fletcher Construction Company.

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I. Funds and Manpower Status - Of the \$454.5M FY 69 funds released to the Systems Office, \$442.1M has been initiated.

Systems Office manpower status is as follows:

	<u>Authorized*</u>	<u>Assigned*</u>
Officers	184	155
Airmen	12	10
Civilians	106	95
High Grades	(33)	(32)
Clerical	<u>(73)</u>	<u>(63)</u>
TOTAL	302	260

*Includes Houston Field Office

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II. Technical Status

A. MOL Alignment Requirements - Systems Office and General Electric Corporation personnel are continuing their evaluation of possible methods of fulfilling MOL alignment requirements with Aerospace Vehicle Equipment (AVE). General Electric representatives will recommend one of the two methods that are still under consideration and substantiate their recommendations at a selection meeting which is scheduled for the week of 10 March. The Systems Office will make a final selection of one of the methods at that time.

B. Airborne Digital Computer Timing - Representatives of the Systems Office, General Electric Corporation, McDonnell Douglas-Western Division, and International Business Machines met on 18 February to discuss the Airborne Digital Computer (ADC) Cycle Time. A recent analysis indicated that demands on the ADC could exceed its 100-millisecond timing cycle under worst-case conditions. As a result of the 18 February meeting and subsequent study, the Systems Office has directed General Electric to implement changes in the core management procedures and to limit the use of the command processor. These actions, coupled with a minor design change which is presently under consideration, will bring worst-case demands on the ADC within the 100-millisecond timing constraint.

C. Image Velocity Sensor - General Electric Corporation has completed the planned testing of both the Hycon and Goodyear Image Velocity Sensor (IVS) systems. Neither model completely satisfied performance requirements, however, and the Systems Office has directed that both models be modified in accordance with design changes that may enable the units to meet these requirements. This approach will further delay final selection of the IVS vendor until early April, but it will enable General Electric to base the final selection on actual test results rather than on a study of possible modifications to the present design of the units.

D. Nonmetallic Materials - The use of nonmetallic materials and flammability testing were major items of discussion at a materials meeting which was held on 11 February at the McDonnell Douglas-Western Division (MDAC-WD) facility. MDAC-WD personnel distributed preliminary copies of their Laboratory Module Flammability Test Plan and discussed their proposed methods of testing. As a result of these discussions, the Systems Office has begun a reassessment of contractor compliance with the toxicological and flammability criteria of SAFSL Exhibit 10010 to assure that a reasonable commonality exists in the selection of nonmetallic materials by the associate contractors.

E. Mission Correlation Data Requirements - Representatives of the Systems Office, TRW, and the Intelligence Community met with Lt Col Lycan on 5 February at the MOL Program Office to finalize the intelligence agencies'

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PAGE 4 OF 6 PAGES

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requirements for mission correlation data (MCD) that will be used in the exploitation process. A letter confirming agreements and the final format/content of the MCD report will be prepared by the Systems Office and coordinated with user agencies by 1 March.

F. Mission Planning Program - On 6 February, Systems Office and TRW personnel briefed Mr. Chadegg, Chairman of the Imagery Collection Requirements Subcommittee (ICRS), and Satellite Operations Center personnel on the design approach and capabilities of the DORIAN mission planning software. The need for expanded requirements data for targeting purposes was discussed, and Mr. Chadegg indicated that he would bring this matter to the attention of the ICRS.

G. Hyperbaric Chamber Training - The U. S. Navy School of Diving and Salvage has agreed to train Systems Office and McDonnell Douglas-Eastern Division personnel in the treatment of decompression accident victims in hyperbaric chambers. This training is considered essential for the personnel responsible for conducting the Dual Gas System Test.

H. Damaged Mirror Blank - The Eastman Kodak Corporation (EKC) management has briefed Systems Office personnel on the details of the accident which damaged primary mirror blank CU720-2, the extent of the damage, and EKC's plans to prevent future accidents of this type. This subject was also an item of discussion during Dr. Flax's visit on 11 February. Possible uses of the damaged piece will be discussed at the EKC Program Review on 17 March.

I. Thermal Vacuum Testing - The Systems Office is continuing its study of test requirements that can be satisfied at one contractor's facility in lieu of testing at two or more locations. Thermal vacuum testing has been identified as a test program that falls into this category, and the Systems Office has requested General Electric Corporation and Eastman Kodak Corporation to study the feasibility of conducting all of this testing at the Eastman facility.

J. Contamination - Systems Office personnel have made arrangements with NASA to visit the Marshall Space Flight Center in mid-March for discussions on the extensive contamination testing that has been conducted by Marshall personnel. Preliminary contact with Marshall personnel indicates that the results and analysis of their testing will prove helpful to the Systems Office's contamination study.

K. [REDACTED] Software - Technical and cost proposals have been received from each of the three contractors that are competing for development of the [REDACTED] Computer Program. The Systems Office is reviewing these proposals and anticipates selection of a contractor by mid-March.

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L. Fuel Cell Development - McDonnell Douglas-Western Division (MDAC-WD) personnel have completed their preliminary design review (PDR) of the Allis Chalmers fuel cell and are working off the resulting action items in preparation for a PDR with Systems Office representation during the week of 17 March. MDAC-WD personnel are also studying a potential schedule impact from incorporation of a silver ion generator into the fuel cell for control of bacteria in the system.

M. Advanced Data System Configuration - Systems Office personnel are continuing the redefinition of the Advanced Data System (ADS) in close coordination with the Satellite Control Facility (SCF) and anticipate completion of this effort by 15 March. The SCF has received informal notification from Dr. Flax that the 360/67 triplex computer will be approved for use in the ADS. Approval of the sole source justification for the Control Data Corporation 6600 computer is still pending.

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