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



NOV 20 1967



MEMORANDUM FOR GENERAL STEWART

SUBJECT: MOL Monthly Management Report, 25 Sep-25 Oct 1967

Attached is the monthly report of significant events,  
25 Sep-25 Oct 1967.

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Report

*J. S. Bleymaier*  
J. S. BLEYMAIER, Maj Gen, USAF  
Deputy Director, MOL

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REGRAIDING: DOD DIR 5200.10  
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DETAILED MONTHLY REPORT  
OF SIGNIFICANT EVENTS

25 SEPTEMBER 1967 - 25 OCTOBER 1967

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1. A Schedule Adjustment Exercise was conducted 19-20 Oct at Douglas, Huntington Beach. All MOL contractors were represented. On 20 Oct a new program baseline, which incorporated a 13 week schedule adjustment, was signed off by all contractors and SPO/Aerospace. The MOL Program Integrator (MPI) will forward final documentation to the participants on or about 30 Oct. This package will include the minutes of the meeting, a 20 Oct Hardware Exchange List (HEL), and a schedule "bedsheet" for the 20 Oct baseline. A Data Management Meeting was held concurrently with the schedule exercise. Final distribution of documentation for this effort will also be made on or about 30 Oct.
2. A Schedule Control System Working Group Meeting was held on 18 Oct to finalize the development of PERT/TIME Air Force Program Management Network (AFPMN). Attendees were GE, DAC and MPI, and SPO/Aerospace. Three basic sheets have been developed: one for Flights 1 and 2, a second for Flight 3, and a third for the test flow. Final publication is schedule for November.
3. The formal Statement of Work for the SAMSO Survivability Group Study of the radiation vulnerability of the IBM 4 pi computer has been forwarded to IBM for action. This \$100K study (at no cost to MOL) should provide useful data as to the level of hardening of our computer, as well as determine techniques to bring it to a desired hardness level.
4. During the period of this report, 15 additional interface documents were signed off by contractors and one was cancelled.
5. The effort to remove CEI level material from the SP/DR has continued. An effort to prepare a draft of the rewritten SP/DR was initiated with a planned completion date of 31 Oct 1967.
6. The MOL CCB dispositioned 72 ECPs; 23 were approved; 14 were disapproved and 35 were deferred for further evaluation. The major cost bearing ECPs approved by CCB actions totaled approximately \$4,430,000 based upon non-negotiated contractor estimates.
7. The T-IIIM CCB dispositioned 83 ECPs; 47 were approved; 9 were disapproved and 27 were deferred for further evaluation. The cost bearing ECPs approved by CCB actions totaled approximately \$600,000 based upon non-negotiated contractor estimates.

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8. Several meetings on the real-time powered flight executive computer program were held during the month. A special task group set up by AFSCF presented data on three alternatives: (a) Have TRW modify SYMON, (b) Have SDC modify SYMON, and (c) Use CDC's SUMMIT Program instead of SYMON. Recommendations are still under review by the SPO.

9. A basic agreement was reached with GE on their role as CPIC for the AVE software system. A CCN is being prepared to implement this assigned responsibility.

10. A briefing concerning the development of the MOL/DORIAN Target Deck was presented to Gen Stewart and Gen Berg on 9 Oct 1967. They concurred with the need for the deck and the suggested procedure for obtaining an analysis deck for the SPO by 15 Feb 1967. The Satellite Operations Center (SOC) was tasked with leading the project to produce this analysis deck. The deck will be used for engineering analysis by the SPO and the mission planning software contractor.

11. A change to the MP&E contract delivery schedule to allow inclusion of greater capabilities in the study program has been negotiated with TRW. This change will result in a one-month later delivery of the program with three additional options on a no-cost charge basis.

12. The Powered Flight Controllers, newly assigned from NASA to the SPO, began indoctrination training on Monday, 16 Oct 67. Specific project assignments have been levied on each individual. Formal technical training by Air Training Command commences on 6 Nov 67.

13. The Douglas Technical Direction meeting was held on 11 and 12 Oct; there were no major Action Items or problems identified.

14. The Tracking Mirror Blank was received at EK for Flight Vehicle 3 on 17 Oct 67.

15. The second set of Data Return Containers (DRC) simulators was shipped to GE on 12 Oct for Zero G flight to simulate the transfer from laboratory to Gemini B.

16. Ten CCN's for a total of \$3.5 million were negotiated with EK bringing the total value of the contract to \$264.4 million. These CCN's covered the design of mounts for Cer-Vit mirrors, the design, development and fabrication of data return containers, the provisioning of thermal slats for the tracking mirror, conformal coating of electrical circuitry, studies for an auxiliary display in the main optics and IVS flip mirror, and additional special industrial requirement.

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17. The AF/Aerospace technical evaluation team for the General Electric deferred effort proposals have been identified. The cost and technical proposals for Block I and II changes have been received and are being reviewed. Present planning is to complete the SPO/Aerospace technical evaluation by 1 Dec 67 and have the GE/Air Force contract negotiations at SAMSO in mid-December.

18. A Technical Interface Meeting was held 4 Oct 67 at Rochester for the purpose of discussing the technical detail of the GE alignment monitor set. GE has proposed four ways to accomplish the on-orbit alignment monitoring required to compensate for orbital thermal deformations and EK internal realignment operations. The meeting narrowed the approaches to two, with both contractors outlining studies they will accomplish in order to determine feasibility of the two preferred approaches. The technical studies scheduled to be completed by the end of Oct 1967 will allow a technical decision to be made on the preferred approach and the nature of the interface between EK and GE.

19. GE's pin requirements for the Douglas Electrical Umbilical were reviewed. In the umbilical, there are 188 pins, of which Douglas has identified a need for over 80%. Since GE is requesting 107 pins, there is an obvious incompatibility. Before adding more connectors, which would impact the vehicle significantly, the contractor's umbilical needs must be thoroughly re-evaluated. It is the SPO plan to review the contractor's umbilical list and, if possible, to keep within the 188 pin capability.

20. The environment the Mission Module will see during aircraft landings was reviewed. It is planned to lock out the MM Transporter Suspension System during flight to eliminate oscillations in the suspension system; however, the MM may see up to 3 g's dynamic loading forces during landings if the suspension system is locked out during this period. Three g dynamic force is considered excessive, and we are now exploring ways of unlocking the suspension system just before landing.

21. A detailed plan has been prepared describing the quality assurance effort to be implemented by the Air Force Plant Representative Office at General Electric. This plan will be transmitted to the AFPR for review and comments. Upon acceptance by the AFPR, this document will establish, by formal agreement, the AFPR role in accomplishing the required quality assurance and surveillance effort. A similar agreement will be prepared in the area of development engineering as soon as we have some final indication as to the level of effort that the AFPR is prepared to support.

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22. Negotiations with McDonnell on the 12-month schedule extension were resumed at SAMSO on 25 Sep 67. Negotiations are continuing in order to resolve the major difference concerning the rates proposed by McDonnell.

23. A final design review of the Gemini B Interface Adapter (GIA), Attitude Control Electronics Group (ACEG), and Pad Abort Thruster Electronics (PATE) was held at Honeywell Aeronautical Division, Minneapolis, Minnesota on 27-28 Sep 67. Representatives of Honeywell, McDonnell, Aerospace and the MOL SPO were in attendance. A review of the Honeywell contract requirements and management procedures, as well as a review of the hardware design, was accomplished. The review revealed no significant problems.

24. CCN No. 25 dated 17 Oct covering the Dual Gas Atmosphere System, estimated cost of \$2,800,000 was sent to McDonnell.

25. The first T-IIIM MOL SPO Management Reviews were held with UTC, AGC and ACED during the week of 23 Oct 67.

26. Direction was given to the United Technology Center to cease work on the present Thrust Vector Control (TVC) system and submit an ECP to incorporate the Ullage Blowdown System. This will result in a minor cost savings to the program and increase payload capability a minimum of 250 pounds. The change from hydraulic to electric valves has not as yet been settled.

27. The T-IIIM booster costs have experienced no reduction due to slips in the MOL Program because of the interplay from a commonality and development standpoint with the other T-III family of vehicles. So long as the agreement to protect the launch schedules of the T-IIIC, B and D exists and that the T-IIIM will pay for the development costs of 15:1 engine, CAGE, Ullage Blowdown system, guidance, etc., no reduction in FY 68 or FY 69 funding can be realized.

28. MOL Manpower Status:

<u>TITLE</u>	<u>AUTHORIZED</u>	<u>ASSIGNED</u>	<u>DIFFERENCE</u>
*OFFICERS	129	126	-3
AIRMEN	6	5	-1
CIVILIANS	72	69	-3
HIGHGRADES	(22)	(20)	(-2)
CLERICAL	(50)	(49)	(-1)
	<u>207</u>	<u>200</u>	<u>-7</u>

\*MOL Flight Crew included. Six attached officers (4 Navy/Marine Flight Crew, 1 SAC and 1 MAC are not included. Plus 15 Powered Flight Controllers overage. T-IIIM not shown.

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29. Of the \$228.4 Million FY 67 funds received, \$228.4 Million has been initiated.

30. Of the \$240.0 Million FY 68 funds received, \$226.2 Million has been initiated.

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