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DEPARTMENT OF THE AIR FORCE  
WASHINGTON

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OFFICE OF THE SECRETARY

MAY 6 1966

MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

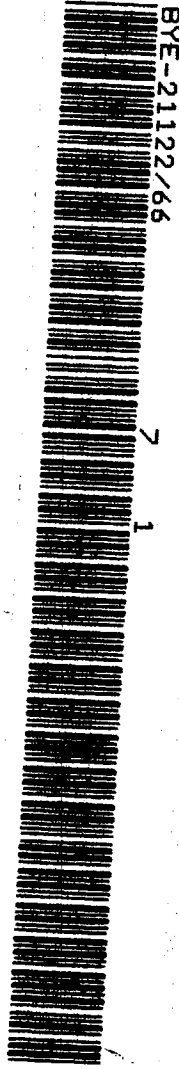
SUBJECT: Manned Orbiting Laboratory Monthly Status  
Report

The attached Status Report on the Manned Orbiting  
Laboratory (MOL) Program covers activities through  
April 30, 1966, and is submitted in accordance with the  
April 22, 1966 instructions from the Office of the Secretary.

*for* ~~*Henry P. Evans*~~  
B. A. SCHRIEVER  
General, USAF  
Director, MOL Program

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a/s

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I. PROBLEMS

Material Priority for Support of MOL

A status report of the action to obtain a DX priority for MOL was given to the MOL Policy Committee on April 29. The Secretary of the Air Force stated that approval would be requested from the Secretary of Defense.

II. CHANGE PAST MONTH

A. MOL Program Cost Review

The planned cost review actions reported last month were accomplished on schedule and culminated in a briefing to the MOL Policy Committee on April 29.

It was reported that the contractor interim estimates totaled approximately \$2.6 billion for the current program, whereas the Cost Review Team and SPO estimate for the same program was \$1.978 billion. Schedule options No. 4 and 5 were presented which reduced the current program flights by one and two flights, respectively, and slipped the program approximately six months. SPO estimates for these two options were figured at \$1.817 billion and \$1.714 billion, respectively.

It was pointed out that this <sup>est</sup>SPO estimates are considered as feasible negotiating targets with the program contract price probably somewhat greater. The associate contractors submit their firm cost proposals May 2 through June 1, and it is not expected these proposals will be lower than the interim estimates we have received.

B. Unmanned Reconnaissance System Study

A study was directed by Dr. Foster, DDR&E, on April 6 to compare operational effectiveness and cost of the MOL reconnaissance mission to that of an equivalent wholly unmanned system. The study was initiated on April 8 by Dr. Flax and will be conducted by SAFSP independent of MOL management. Contracts to LMSC and GE were let on April 13 to develop conceptual system design, schedules and costs for the unmanned system. Preliminary reports are expected from the contractors during the third week in May and the study will be completed and submitted to Dr. Foster subsequent to review by MOL Policy Committee, scheduled for June 9, 1966.

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C. MOL/Titan IIIC - Utilization for Apollo Application Program (AAP)

A study was completed and submitted to DDR&E, April 22, stating that MOL hardware can probably accomplish the AAP objectives in either low or high inclination low altitude earth orbits; NASA procurement of MOL hardware would have beneficial effect on unit costs and would not impact MOL schedules after late 1970; launch of Apollo hardware by Titan IIIC boosters is not an attractive consideration due to possible technical problems with large bulbous payloads and due to costly facility modifications for the Apollo spacecraft.

D. Selection of Second Increment of MOL Aerospace Research Pilots

A MOL Program Office selection board has completed action in a final screening of twenty-five candidates nominated by the Chief of Staff for assignment to the program. A recommendation has been submitted to the Director, MOL that five selectees, three Air Force, one Navy, and one Marine Corps officer, be assigned to the program in the second increment. These officers were selected from a total of over 500 Air Force, Navy, and Marine Corps officers who applied for the assignment last December. It is anticipated that an announcement of the selection will be made in the next month or two.

E. Public Release of MOL Information

In a memorandum dated March 31, the Assistant Secretary of Defense for Public Affairs directed that future public announcements of the selection of Aerospace Research Pilots for MOL will be handled in the same manner as the announcement of the first group--at a press conference in Los Angeles. He also directed that MOL contract awards will be announced in the normal fashion. This means that, depending on classification and amount, the information will be included in the daily contract award news release issued by DOD. Two awards to McDonnell were announced in this manner; one on April 8 and the other on April 28. Further, the memorandum directed that annexes to the MOL Information Plan be prepared to cover these events as well as the heat shield qualification launch, which is to be "open" to the press.

III. CURRENT STATUS

A. MOL Experiments for Saturn IVB Workshop

The Ad Hoc group, chaired by Dr. Yarymovych, SAF-SL, which was established to define a proposed package of MOL supporting experiments for this flight, met twice during April. Nine experiments have

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been selected for further definition and recommendations on the experiments package and management plan will be submitted to the Director, MOL and Secretary of the Air Force after the next scheduled meeting of May 17. On April 27 it was learned that NASA has rescheduled the workshop experiment from Saturn SA-209 to SA-211/212, which is to be a dual mission. This will result in a schedule slippage of 6-12 months. NASA now plans to submit their proposed experiments to the July 18 meeting of the MSFEB rather than the May 24 meeting. The Air Force will delay its submittal of proposed experiments accordingly.

B. MOL Instrumentation Ship

The NASA response (April 15, 1966) to the support of the Joint Committee on NASA and MOL ship requirements reiterated their original position of non-acceptance of the potential constraints imposed by limiting Apollo consecutive monthly reschedules to cause no more than a 30-day MOL slip. Their reply also stated they would continue to analyze their ship requirements with the objective of reducing them, thereby easing the ship scheduling problem. MOL ship requirements for flights 1 through 4 (T-2 ship) and flights subsequent to No. 4 have been provided to NRD. NRD has notified the MOL Program Office that modification action has been started on two Apollo T-2 ships.

C. MOL Recovery Support - Henderson Island

No response has been received from the United Kingdom as of May 1, 1966 concerning request for permission to conduct a site survey. A second iteration of the facilities and equipment required at Henderson resulted in estimated costs of \$7.0 million for facilities and \$3.0 million for equipment. The results of the site survey will permit further refinement of these costs estimates.

The Aerospace Rescue and Retrieval Service and the Navy have been requested to study methods of crew and spacecraft retrieval with and without Henderson Island. The results of these studies and the site survey should form the basis for a decision to proceed with the Henderson Island base if the United Kingdom approves. Aerial photos of Henderson Island are desired for site survey planning and photos have been requested from SAF-SS. Official request for transportation of the site survey part in June, 1966 has been made to CINCPAC FLEET, but no response has been received to date.

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D. Quantitative Assessment of Man's Usefulness in Space

The task force completed its research concerning man's contribution and worth in space applications which bear on MOL. A preliminary draft of the final report was prepared and submitted to the Director, MOL on April 22; and he directed that several of the recommendations be implemented immediately. It is planned to refine the report and complete the task force activity during the second week in May.

E. Gemini Equipment Transfer

On March 28, 1966 personnel of the NASA Gemini Program Office and MOL Program Office met to reach agreement on distribution of NASA Gemini equipment. The results of this meeting were presented to Dr. Mueller by representatives of MSC on April 5, 1966. NASA agreed to transfer 25 out of 31 items of Gemini AGE which were identified as being critical for long lead development. The remainder were not made available, because they are needed to support the main line Apollo program. NASA plans to submit a full list of available AFE and AGE to the MOL Systems Office by September 1, 1966.

There are two essentially complete Gemini Dynamic Simulators, one at MSC, Houston and one at Kennedy Space Center, that are becoming surplus with the pending completion of the NASA Gemini Program by the end of this calendar year. The Air Force has expressed a need for one of these and an interest or desire for the other in support of the MOL Gemini B program. The Administrator and Associate Administrator (MSF), NASA, have officially stated to Congress that they will effect the transfer of the one simulator to the Air Force as an example of efficient utilization of Government resources and NASA support to DOD programs. Subsequent to these agreements and commitments at the highest agency level, lower echelons, in recognition of the extremely critical NASA program budget problems, are proposing the transfer of one simulator and the Gemini peculiar components of the other to the Air Force for \$5 million. They propose to apply these funds additively to their own to procure one completely new, and modify the remaining stripped Gemini simulator, for Apollo program use.

IV. FORECAST FOR FUTURE

A. A presentation of the results of the DORIAN Cost Review Team will be given to Dr. Flax, General Schriever, General Evans, and General Stewart on May 11.

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B. On May 20 the MOL Systems Office (SAF-SL1) and the Air Force Special Projects Office (SAF-SP) will make a presentation to the MOL Policy Committee of the MOL Program costs for schedule option 5 and the alternate schedule option directed at the April 29 MOL Policy Committee meeting.

C. On May 21 the above presentation will be given to DDR&E.

V. DUE DATE FOR NEXT PROGRESS REPORT

Next monthly MOL Program Progress Report to be submitted  
June 7, 1966.

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