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DEPARTMENT OF THE AIR FORCE
WASHINGTON

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OFFICE OF THE SECRETARY

JUN 1 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
May 31, 1966, and is submitted in accordance with the
May 23, 1966 instructions from the Office of the Secretary.

SIGNED

B. A. SCHRIEVER
General, USAF
Director, MOL Program

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a/s

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I. PROBLEMS

Fiscal Year 1967 Funding Requirement

It now appears that a MOL program which best balances the date of the first manned flight with orderly progression of the development program will require a FY 67 funding level of approximately \$250 million, with a first manned flight date in December 1969. Any funding level appreciably lower than this would have an impact of a further slip in the schedule for a manned reconnaissance capability. If additional MOL funds are not appropriated by the Congress, reprogramming within the Air Force appears to be the only source of additional MOL funds.

II. CHANGE PAST MONTH

A. MOL Policy Committee Meeting

A meeting of the MOL Policy Committee was held in Washington on May 20 to review program cost and schedule options in preparation for Air Force submission to DDR&E by mid-June. Contractors' Phase II cost proposals to date have been submitted on a program baseline of nine launches scheduled on four-month centers starting in October 1968. For reasons of economy and critical lead time requirements on the DORIAN optics, which are pacing other program segments, a new baseline was approved by the Committee for program planning and costing. The new program baseline is depicted on the MOL Summary Schedule attached to this report.

The Systems Office estimates the cost of this revised program at \$1.751 billion with a funding requirement for new obligating authority in FY 67 of \$251.9 million. Contractors' estimates, to be submitted on the new baseline in early June, will serve as a departure point for initiating Phase II contract negotiations.

B. DORIAN Cost Group Meeting

The Senior Cost Review Group on the DORIAN cost submissions met with the Director NRO, on May 11, 1966. In addition to a review of the Eastman Kodak and General Electric

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cost submissions, the following funding decisions on the Applied Research Programs were reached:

- (1) Proceed with CER-VIT development. Total cost of facilities at Owens-Illinois for development of CER-VIT will be approximately \$2.0 million, required in FY 67. Effort to date has been towards development of a 59-inch mirror but will now be extended to start development of the 72-inch DORIAN mirror. The FY 67 submission will include \$1.5 million for development of 72-inch blanks. 3.5
- (2) Image Motion Compensation Sensor (IMC) to be funded by MOL at a level of \$2.25 million in FY 67. This sensor would provide additional error signal, as sensed at the image plane, and is mandatory for the unmanned concept. Current efforts are in progress at Itek and Goodyear. 2.25
- (3) SIGINT Studies will be funded in FY 67 at a level of \$1.35 million but the identification of all hardware will be carried below-the-line. 1.35

7.10

C. Review of DORIAN Effort at Eastman Kodak

As a result of a visit and review of the DORIAN effort at Eastman Kodak on May 17 by Director, NRO and Director, MOL, it was agreed that the MOL Program proceed on a schedule which protects the option to conduct the first flight of MOL with DORIAN optics in December 1969. This is to be accomplished using the compatibility model with the possibility to be explored of using high quality optics. This action to protect the option for an early flight with optics is to be accomplished with no increased risk or degradation to performance or schedule of the April 1970 launch with Flight Model Number 1.

D. Selection of Additional MOL Aerospace Research Pilots

Five astronauts have been selected in the second increment to be assigned to the program, including three Air Force, one Navy, and one Marine Corps officer. Public announcement of the selection

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will be made in the near future, in a form similar to that used to announce the first selection, i.e., at a press conference, probably in Los Angeles. It is anticipated that they will be assigned to the MOL Systems Office this summer, with advanced MOL training at the Aerospace Research Pilot School to commence in November.

E. Congressional Activities

The MOL Program Office provided backup to Major General Curtin in Congressional hearings during May 1966 on military construction funding requirements.

Answers were provided to questions by Mr. Sikes of the House Appropriations Committee. Identical questions had been posed for Dr. Foster to answer and as inserts for the record in General Curtin's testimony.

Several statements on MOL were prepared for possible use by various Congressmen during a House debate on the military space program.

F. MOL Funding Status

Obligation Authorities issued during May 1966 to General Berg and General Martin totaled \$3,435,167. This brings the total of funds released by the MOL Program Office since Presidential announcement last August to \$90,782,167. All identified program requirements through June 30, 1966 have been funded with the \$90,000,000 FY 66 funds previously released by DDR&E. A request for the release of the remaining \$60,000,000 of MOL deferred FY 66 funds has been made. These funds are required to meet first quarter FY 67 requirements which include the final two months of Phase C Definition and the initial month of Phase II Development.

III. CURRENT STATUS

A. Unmanned DORIAN System Studies

The Unmanned DORIAN System Studies, conducted at the request of Dr. Foster DDR&E are scheduled for initial review by the Director, NRO and Director, MOL in Los Angeles on June 7.

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This review will include the results of the contractors' studies, SAFSP in-house studies and MOL Systems Office inputs.

Dr. Flax has requested DDR&E that submission on the results of these studies be extended to June 17 to allow for refinement and completeness subsequent to the scheduled review on June 7.

B. MOL Abort Recovery Aircraft Staging Base

Initial MOL recovery planning has established a need for a staging area along the flight vehicle ascent ground track to support flight abort recovery operations. Henderson Island, an uninhabited British possession, has been selected for initial survey. The staging area must operationally support twelve HC-130 aircraft and eight helicopters. Since very little information is available, a request was made to the U.K. for permission to send a survey party to Henderson Island to evaluate the suitability of the Island as a staging base. Informal approval has been given to conduct the survey. Of the possible sources of transportation to Henderson Island, the earliest departure date presently uncovered is September 1, 1966. This date would not be early enough to permit inputs into the FY 68 military construction budget submission to OSD. Consequently, other sources of transportation are still being investigated.

C. Assignment of NASA Personnel to MOL Systems Office

Dr. Seamans, Deputy Administrator, NASA in a letter to General Schriever on May 2, 1966 concurred in the mutual benefits to be achieved in assigning NASA personnel to the MOL Systems Office. Implementing actions are underway to identify personnel with the necessary qualifications and experience.

D. MOL Ocean Surveillance Mission

The conceptual design of an ocean surveillance payload for MOL is nearing completion by the Navy. In order to obtain approval to enter the contract definition phase it will be necessary to present a detailed briefing on the conceptual design to DDR&E. The tentative schedule leading up to the presentation to DDR&E is listed below:

<u>DATE</u>	<u>ACTIVITY</u>
June 24	Review of the conceptual design within the Naval Materiel Command

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June 27 Review by Deputy Chief of Naval Operations (Development)

July 8 Review by Assistant Secretary of the Navy (Research and Development)

July 11 Review by Deputy Director, MOL

July 13 Review by the Director, MOL

July 14 Review by the MOL Policy Committee (If necessary)

July 15 Presentation to DDR&E

IV FORECAST FOR FUTURE

- A. The results of the Unmanned DORIAN System Studies to be reviewed by Dr. Flax and General Schriever on June 7 in Los Angeles.
- B. Public announcement of the selection of five additional MOL Aerospace Research Pilots to be made during June.
- C. Firm cost estimates on FY 67 funding requirements, together with technical and schedule justification to be documented and submitted to DDR&E by mid-June.
- D. Contract negotiations with major associate contractors for the Engineering Development Phase to commence in June.
- E. Remaining \$60 million of FY 66 MOL deferred funds to be released by OSD to support first quarter program requirements.
- F. Selection to be made during June on the award of the MOL Data Management Sub-System.

V. DUE DATE FOR NEXT PROGRESS REPORT

Next monthly MOL Program Progress Report to be submitted July 8, 1966.

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MOL Summary Schedule

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MOL SUMMARY SCHEDULE

FISCAL YEAR	1967												1968												1969												1970												FY 71											
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1 STRUCTURES (Apr 69) Gemini B Qualification	[Timeline bars for Objective 1]																																																											
2 STRUCTURES (JUL 69)	[Timeline bars for Objective 2]																																																											
3 MANNED AUTOMATIC (DEC 69)	[Timeline bars for Objective 3]																																																											
4 MANNED AUTOMATIC (APR 70)	[Timeline bars for Objective 4]																																																											
5 MANNED AUTOMATIC (JUL 70)	[Timeline bars for Objective 5]																																																											
6 AUTOMATIC MODE (OCT 70)	[Timeline bars for Objective 6]																																																											
7 AUTOMATIC MODE (JAN 71)	[Timeline bars for Objective 7]																																																											

RECOVERY

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