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 December 31, 1967 and is submitted in accordance with the December 18, 1967 memorandum from the Office of the Secretary.

JAMES FERGUSON
General, USAF
Director, MOL Program

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s/a
I. PROBLEM

Schedule and Funds

During the period November 30 to December 6, the major MOL Associate Contractors met at Huntington Beach, California, to examine the Program, with minimum Air Force participation, with the objective of devising and proposing to the government a development plan which balances MOL schedules and Program scope against anticipated Fiscal Year funding constraints.

On December 7 and 8, the results of this exercise were presented to Air Force management. The contractors recommended certain relatively minor changes and deletions in program content, and a schedule keyed to a first manned launch in August of 1971. This program, which has the unreserved endorsement of all the major Associates, assumes Fiscal Year 1969 funding of $640 million.

On December 8, the MOL Program Review Council, chaired by Dr. Flax, reviewed and approved, with minor exceptions, the contractors' proposal. Thus, as of December 8, government and industry has agreed, without reservation, on a plan which is technically and financially sound. The Program, as now conceived, will assure accomplishment of program objectives; provide logical and integrated program schedules; provide for continuous, and measurable, program progress; and assure correlation between schedules and known fiscal constraints.

On December 9, a memorandum from the Secretary of Defense inquired as to the feasibility of a plan for completing MOL, at least in the first phase, without a man, estimating that such a program could be financed in FY 69 for $400 million. Various options were studied and transmitted to Mr. McNamara in a December 15 memorandum from the Secretary of the Air Force who recommended the program be funded at not less than $600 million in FY 69. An alternative recommendation was a $520 million level in FY 69 with an attendant schedule slip and cost increase provided there was confidence in funding at the $600 million level in FY 70 and 71; otherwise it was recommended the MOL Program be terminated and an unmanned system development initiated.

As of December 31, the recommended DoD funding for MOL in FY 69 was $600 million. No additional schedule slip is contemplated, as it is believed the difference between $600 and the $640 million mentioned above is manageable.
II. CHANGE PAST MONTH

A. December Program Adjustment

The following tables summarize the significant schedule/funding adjustments agreed upon at the December 8 MOL Program Review Council meeting:

<table>
<thead>
<tr>
<th>Flight Nr</th>
<th>Was</th>
<th>Is</th>
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<tbody>
<tr>
<td>1</td>
<td>April 1970(1)</td>
<td>November 1970</td>
</tr>
<tr>
<td>2</td>
<td>June 1970</td>
<td>April 1971(1)</td>
</tr>
<tr>
<td>3</td>
<td>December 1970(2)</td>
<td>August 1971(2)</td>
</tr>
<tr>
<td>4</td>
<td>April 1971</td>
<td>January 1972</td>
</tr>
<tr>
<td>5</td>
<td>August 1971</td>
<td>May 1972</td>
</tr>
<tr>
<td>6</td>
<td>November 1971(3)</td>
<td>September 1972(3)</td>
</tr>
<tr>
<td>7</td>
<td>February 1972</td>
<td>January 1973</td>
</tr>
</tbody>
</table>

(1) Gemini B qualification/booster qualification/structure test
(2) First manned flight
(3) First unmanned automatic flight

Funding Requirements

<table>
<thead>
<tr>
<th></th>
<th>FY 69</th>
<th>FY 70</th>
<th>FY 71</th>
<th>FY 72</th>
<th>FY 73</th>
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<tbody>
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<td>Prior Planning Basis</td>
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<td>Dec 8 Planning Basis</td>
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<td>$590M</td>
<td>$451M</td>
<td>$299M</td>
<td>$105M</td>
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B. Death of Major R. H. Lawrence

Major Robert H. Lawrence, one of the MOL Aerospace Research Pilots, was killed in an aircraft accident at Edwards Air Force Base on December 8. The death of Major Lawrence reduces the MOL crew roster to fifteen; eleven Air Force, three Navy and one Marine.
C. DORIAN Audit Plan

In mid-1967, the Air Force and the Government Accounting Office jointly recognized that normal GAO audit activities in connection with MOL could create serious security complications. Mr. William Newman, Director of the Defense Division, GAO, agreed in principle at that time to a procedure in which the information needs of the GAO would be supplied by the Defense Contract Audit Agency, NRO Audit Group. Mr. Harold Rubin of the Defense Division, GAO, was designated to represent GAO interests in this procedure, and was briefed DORIAN for this purpose.

On December 8, Air Force representatives met with Mr. Rubin and Mr. William Petty, Director, DCAA, to review a formal audit plan prepared by the MOL Program Office. This plan was tentatively approved by all parties, and will be implemented in the near future. Mr. Rubin noted that the approved procedures provide only for audit of contractor activities, and do not contemplate review of Air Force management. The implications of Mr. Rubin's observation are not yet clear.

D. C/SPCS Briefing for SAFFM

On December 11, Secretary Marks was briefed on the results of the recent Air Force validation/demonstration of the Douglas Cost/Schedule Planning and Control System. The validation team concluded that the Douglas system is basically sound, with certain exceptions, and therefore granted a qualified acceptance.

Secretary Marks accepted the team's recommendation not to replace the C/SPCS specification presently on contract with the standard specification prescribed in Annex 4, AFSC Manual 70-5. This recommendation was predicated on the release during December of a DoD Instruction that will supersede and require revision to the AFSC specification. Publication of the report of the evaluation team is scheduled for early January.

III. CURRENT STATUS

A. Funds

During December, $10,000,000 retained by the Director, MOL was issued to the Systems Office to fund contracts through early January. With this release, all of the $250 million (FY 68) previously released by OSD to MOL has been issued to the field. A memorandum has been prepared requesting DDR&E release of all remaining FY 1968 MOL funds, in the amount of $180,000,000. Upon receipt of these funds,
$100,000,000 will be released to cover 3rd quarter requirements and $80,000,000 will be retained by the Director, MOL until late March, when it will be released to fund 4th quarter requirements.

B. Congressional

Messrs Craig Vorhees and William Parker, staff members of the Senate Committee on Aeronautical and Space Sciences, visited the Douglas Facility at Huntington Beach on December 11. Their interest was primarily in NASA work there; however, they requested and were given a MOL briefing at the SECRET - SPECIAL ACCESS REQUIRED security level.

C. Industrial Facilities at Eastman Kodak

Original Air Force estimates, developed during the spring and summer of 1966, recognized two types of industrial facilities to be acquired at Eastman Kodak for support of the DORIAN program. In the category of Special Purpose Buildings, the government recognized a requirement for $13.014 million in construction and related costs. A separate requirement for approximately $15.0 million was recognized for what has been categorized as Special Industrial Requirements (SIR), which include test chambers, test towers, and related support and test equipment.

As a result of improved definition of test requirements at Eastman, and recent decisions regarding acoustic testing of the mission payload, the estimated cost of the industrial facilities package at Eastman has increased substantially. The projected cost of the Special Purpose Buildings now under construction has risen by approximately $586,000 to $13.6 million. The estimated acquisition cost of SIR items has approximately doubled, to about $30 million, principally as a result of newly-defined requirements for payload testing, including acoustic testing. The actions required to secure and/or issue the necessary approvals for acquisition of the augmented Eastman facilities package are in progress.

IV. FORECAST FOR FUTURE

On January 10, Air Force and Contractor MOL management will meet in Los Angeles to review jointly the status of the program adjustments identified on December 8, and to reorient the development slightly to a fiscal planning basis which now envisions:

<table>
<thead>
<tr>
<th>FY 69</th>
<th>FY 70</th>
<th>FY 71</th>
<th>FY 72</th>
<th>FY 73</th>
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</thead>
<tbody>
<tr>
<td>$600M</td>
<td>$610M</td>
<td>$485M</td>
<td>$340M</td>
<td>$83 M</td>
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DORIAN

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The final product of this meeting is expected to be a reaffirmation from all parties that (1) program content is clearly and commonly understood, and (2) the work can be performed within projected dollar constraints and on existing schedules.

V. DUE DATE FOR NEXT PROGRESS REPORT

The next monthly MOL Program Progress Report will be submitted February 9, 1968.