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MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(RESEARCH AND DEVELOPMENT)

SUBJECT: Initiation of MOL Contract Definition Phase

Attached are three documents which I recommend for your signature. TAB A is a proposed memorandum for Dr. Brown, intended to provide background information to support DDR&E release of funds for initiation of MOL Contract Definition Phase 1B and continuation of Pre-MOL activities. The document is also intended to be responsive to your requirements in connection with SAF-RD approval of MOL final procurement action. Appended to TAB A is a proposed memorandum requesting DDR&E release of \$62. Million of MOL RDT&E funds. TAB B is a proposed draft of the desired SAF-RD approval.

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- 1. TAB A w/1 Atch
- 2. TAB B - NOT w/ THIS cy

HARRY L. EVANS
Brigadier General, USAF
Vice Director, MOL

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MEMORANDUM FOR DIRECTOR DEFENSE RESEARCH AND ENGINEERING

SUBJECT: Initiation of MOL Contract Definition Phase (CDP)

MOL procurement is currently limited to those tasks associated with Gemini and Titan III-C. The following additional major procurements, exclusive of actions associated with experiment development, are anticipated during the MOL Contract Definition Phase:

Laboratory Vehicle System - Douglas

Mission Module and Payload - General Electric, plus an additional contractor not yet selected.

Other contracting, in the areas of flight crew equipment, mission control equipment, test support, system analysis, and facilities, is also anticipated. These actions have not been identified with specific contractors at this time.

In his June 28, 1965 memo to the Secretary of Defense requesting authority to proceed with Phase IB of the MOL Program, Secretary Zuckert requested seven specific approvals, among which were:

1. "Authorization for the Project Definition Phase."
2. "Authorization and release of \$39.2 million of MOL RDT&E funds (\$16.2 million deferred FY 65 funds; \$23.0 million FY 66 funds) to implement Project Definition and continue with Pre-MOL activities."

The estimated \$39.2 million in RDT&E costs was established assuming a single laboratory vehicle CDP contractor, was exclusive of payload costs, and assumed a six-month Contract Definition Phase. The selection of General Electric as a second major associate contractor, in conjunction with the extension of Aerospace Corporation GSE/TD support beyond the first half of FY 66 and a seven-month Contract Definition Phase, has had the effect of increasing estimated Phase IB costs by \$22.8 million. The present

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estimated RDT&E cost to implement MOL Phase IB and to continue Pre-MOL activities is \$62.0 million. The following table provides a break-out of anticipated costs:

T-III-C -----	\$ 7.0 million
Gemini -----	7.0 million
Laboratory Vehicle -----	12.0 million
Mission Module & Payload -----	12.0 million
Flight Crew & Equipment -----	1.0 million
Facilities -----	0.5 million
System Analysis -----	2.0 million
Mission Control Equipment -----	0.5 million
Test Support -----	0.5 million
GSE/TD -----	7.0 million
Navy -----	2.0 million
Pre-MOL -----	10.5 million
TOTAL -----	\$ 62.0 million

The areas of responsibility of the laboratory vehicle and mission module contractors are outlined in SAF Memorandum to Secretary of Defense, subject: MOL Management, dated August 24, 1965. Briefly, the laboratory vehicle contractor is concerned with orbital vehicle integration, laboratory vehicle design and fabrication, subsystem acquisition and integration, command/control considerations, system test, laboratory vehicle AGE, integration of certain mission module elements, booster and capsule interface design, and related areas. The mission module contractor is responsible for mission module design and fabrication, module requirements and AGE, payload data processing, payload control station design, payload environmental control, a reconnaissance simulator, interface requirements, payload pointing equipment, and related subjects.

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The required product of MOL Phase I activity can be defined in general terms as the following:

1. A carefully refined baseline description of the MOL System to which all future MOL acquisition activities can be related -- the MOL System Performance/Design Requirements Specification.
2. A Proposed System Package Plan and supporting documentation, appropriate for use as a basis for a decision by higher authority on post-CDP MOL activities.
3. Engineering, design, and analysis work, to include detailed design and drawings for certain long lead time items, definition of all contract end items (CEI), and the Performance and Design Requirements Section (Part I) of each CEI Specification.
4. A PERT System for application during the acquisition phase.
5. Firm Statements of Work, and firm proposals from participating contractors for the conduct of Phase II of MOL System Acquisition.

The following is a brief summary of contractual events to date:

1. Titan III efforts as they pertain to MOL Phase I activities are currently under contract.
2. The McDonnell contract for Gemini B definition has been issued.
3. At a meeting with SSD on Tuesday, 31 August, the Request for Proposal (RFP) and Work Statement on the Laboratory Vehicle were discussed and released to Douglas. Douglas is to respond to SSD, approximately 20 September, with their definitive proposal for the Contract Definition Phase. Negotiations will follow immediately thereafter with an effective contract date planned no later than 1 October. All contract end items required to enter Phase IC will be delivered five months after the effective start date. Actual contract duration is expected to be seven months.
4. The RFP/Work Statement on the Mission Module will be completed and released to General Electric on or about September 13. Again, procurement events are scheduled to allow for an effective contract date no later than 1 October. It is anticipated that work will be complete for purposes of entry into Phase IC five months after go-ahead.

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5. The contract schedules on the other system segments required for the Definition Phase are not as well defined at this time; neither are they as time critical as the major associate contracts mentioned above.

To implement the MOL Definition Phase and to continue with Pre-MOL activities on current schedules, it is necessary to effect immediate release of the initial increment of approved MOL funds. The enclosed request asks for release of \$62.0 million. Any funds remaining of this total at the completion of Phase I would be applied, with the remaining \$100 million of FY 66 appropriated funds, to satisfy Phase II requirements.

Attachment #1 is a Memorandum for Director Defense Research and Engineering requesting release of approved MOL funds.

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a/s

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