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MOL PROGRAM OFFICE DIRECTIVE NO. 67-4

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MOL PROGRAM ADVANCED PLANNING

## PROGRAM REQUIREMENT DOCUMENT

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MOL PROGRAM OFFICE AND ITS REQUIREMENTS ARE

DIRECTIVE ON THE DEPUTY DIRECTOR, MOL FOR IMPLEMENTATION

## SIGNED

APPROVED

JAMES FERGUSON General, USAF Director, MOL Program

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I. <u>PURPOSE</u>.

This directive provides authority and guidance for the continuation of advanced planning activities described in MOL Program (5-2). Office Directive No. 62-2.

II. SCOPE.

This directive is applicable to all elements of the MOL program management structure in accordance with the terms of responsibilities and authority provided the Director, MOL Program, by the Secretary of the Air Force.

The planning function addressed by this directive is within the scope of the baseline MOL program described in the Manned Orbiting Laboratory Program Plan and Funding Requirements document, 15 December 1966 Revision.

Planning activities of concern herein shall relate to growth versions of the baseline MOL system. Planning of any follow-on MOL program in which only baseline MOL hardware and operational techniques are used is not included in this directive.

III. ADVANCED PLANNING OBJECTIVES.

A. General

The principal and initial objective of the MOL program is the development and early demonstration of an operationally useful high resolution optical reconnaissance system capable of achieving ground resolution of the schievement. In conjunction with the achievement

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of the principal program objective, provisions are also to be made for increasing the baseline system capability by extending or-orbit lifetime and incorporating advanced optical systems

Growth versions of the MOL system shall not be limited to the baseline MOL system concept of integral crew and laboratory launches. Other techniques, such as rendezvous and resupply operations utilizing variations of baseline MOL system segments, shall be considered.

B. Advanced Planning Objectives and Requirements

Achievement of the increased system capabilities prescribed by the basic program objectives can only result from timely and effective advanced planning of MOL growth configurations. Appropriate studies and analyses and other supporting planning activity must therefore be pursued in support of the following objectives:

1. Improved system economics in both R&D and operational phases, with specific consideration of increased mission duration and extended utilization of baseline or direct derivations of baseline system segments. Both integral launch and rendezvous techniques are to be investigated.

2. Improved operational flexibility through the use of combined mission configurations, multi-sensor arrangements, larger crew complements, resupply techniques, orbital assembly and orbital storage.

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HANDLE VIA BYEMAN Control System Only 3. Increased mission performance through improvements to the baseline sensor capability, incorporation of higher resolution payloads, use of additional or complementary payload capabilities, and the application of advanced data management and recovery techniques.
4. Development of growth versions with diversified mission

potential for support of DOD, NASA or other national requirements that may arise; such as long duration bioastronautic investigations, meteorology, multi-spectral earth sensing, astronomy and planetary observation, and the conduct of other experiments of military or national relevance.

5. Investigation of advanced techniques and technologies leading directly to improved optical sensors and systems capable of ground

resolution

Some of the major aspects to be investigated are:

a. System configurations

b. Components and materials

- c. Navigation, control and drive systems
- d. Bulk, weight and mass considerations

e. Supporting subsystem requirements

f. Vibration environment

IV. SCHEDULES AND FUNDING.

A. Schedules for the initiation, conduct and completion of each advanced planning activity should be integrated with progress in the baseline MOL program so that planning results support timely formulation and submission of proposals for growth versions of MOL.

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B. Funds for the studies, analyses, and associated advanced planning activities addressed herein are nominally included in the baseline MOL Program. Unusual or special funding requirements required for hardware technology programs or detailed advanced planning studies involving extensive contractor support should be identified as not included in the baseline program. Such requirements should be submitted to the Director, MOL on a case-by-case basis for a determination as to source of funds.

C. Schedules and funding requirements for advanced planning activities directed toward growth versions of MOL should be related to, but identified separately from the baseline MOL program and any follow-on MOL programs based solely on the use of baseline MOL hardware.

V. TASK SUMMARY

In accordance with this directive the MOL Systems Office will:

A. Prepare and forward to the Director, MOL a plan for the conduct of the herein described advanced planning activities by 15 March 1967.

B. Conduct a summary briefing of the status of advanced planning activities on a quarterly basis.

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