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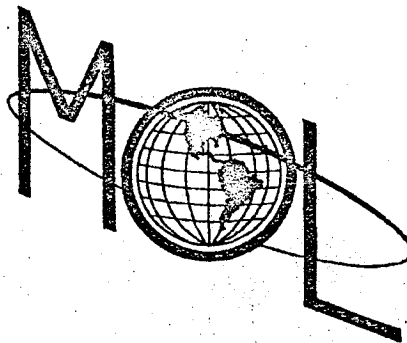
LABORATORY

PROGRAM DIRECTIVE

MOL SIGINT STUDY PROGRAM

NO. 66-1

9 FEBRUARY 1966



HEADQUARTERS UNITED STATES AIR FORCE

WASHINGTON, D.C.

DORIAN [REDACTED]

MOL PROGRAM OFFICE

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MOL PROGRAM OFFICE

DIRECTIVE 66-1

PROGRAM REQUIREMENT DOCUMENT

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MOL PROGRAM OFFICE AND ITS REQUIREMENTS ARE
DIRECTIVE ON ALL COGNIZANT ELEMENTS OF THE MOL PROGRAM

APPROVED

Alexander H. Flax
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APPROVED

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MOL SIGINT STUDY PROGRAM

I. PURPOSE

The investigation of appropriate SIGINT Sensors and Systems which may be incorporated in the MOL Program is considered an important aspect of the overall program and one which should be pursued actively within the guidelines of this directive.

The work to be initiated involves two separate efforts. The first is a study of ways to use a passive electromagnetic radiation sensor as an auxiliary pointing system for the basic DORIAN optics to increase the effectiveness of the High Resolution Optical Mission, and, in addition, in the acquisition of selected technical data on electromagnetic emissions. The second, is a data collection and analysis program to be used as a basis for later studies for determining if MOL would be capable of performing a COMINT mission [REDACTED], in addition to collection of high priority technical ELINT information.

This directive provides the authority to initiate studies and investigations in both of these areas as described in Section IV, Technical Program. Briefly, elements to be undertaken are the auxiliary Electromagnetic Pointing Sensor Study, and an Aircraft Test Program to determine intelligibility of data from emitters [REDACTED]
[REDACTED]

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[REDACTED]

The effort for processing data from the orbital and aircraft programs to a format useful in the MOL SIGINT studies should be proposed when appropriate. Additional studies and investigations which are identified as desirable during the course of this program may be recommended for initiation as appropriate.

II. SECURITY

Each activity undertaken will be conducted within the Security Guidelines appropriate to its nature. The Electromagnetic Pointing System Study will be handled under the BYEMAN Control System (DORIAN).

The Orbital Collection Program [REDACTED] with the product handled under the COMINT/TALENT-KEYHOLE Systems jointly. If appropriate and applicable, the Aircraft Test Program may be isolated and conducted at the SECRET level and the product handled in COMINT channels only. Aircraft Test Program interfaces with MOL SIGINT studies and the MOL Program, per se, will be controlled under the BYEMAN Control System. Component Developments may be handled at the SECRET level if their relationship to the MOL SIGINT studies and the MOL Program, per se, is properly protected. Security for additional studies or investigations will be determined at the time of initiation.

III. TECHNICAL PROGRAM

The Electromagnetic Pointing System Study should emphasize the use of an auxiliary SIGINT Direction Finder to furnish pointing

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information for the DORIAN optics, [REDACTED]

[REDACTED]

[REDACTED] Careful investigation should be made of areas involving manned functions in utilizing the EPS data to acquire targets, [REDACTED] and to obtain technical electromagnetic data. Displays appropriate to these areas should be included. The EPS should be capable of operating in an unmanned mode when providing pointing information but consideration should be given to the improvement in performance obtained from manned operation (possibly limited to pre- and post-pass adjustment).

[REDACTED]

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[REDACTED]
[REDACTED] The

output of this program will be made available for MOL SIGINT studies and close coordination should be maintained with the [REDACTED] Office to assure compatibility of this data with MOL SIGINT study requirements.

The Aircraft Test Program should provide data to show how

[REDACTED]

[REDACTED] Data from this test program should be compatible with effective display and analysis.

At such times as the Orbital Collection Program and the Aircraft Test Program are sufficiently advanced that the data output format can be firmly identified, programs should be initiated to process this data so that it can be properly analyzed and used in follow-on studies and evaluations.

As component developments are identified during the course of this effort, recommendations should be made for their initiation.

Two areas presently of concern [REDACTED]
[REDACTED]

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IV. SCHEDULES

The Electromagnetic Pointing System Study should be conducted by at least two competitors with RFP's for a three month study initiated as soon as possible.

The Aircraft Test Program should be initiated at the earliest possible date. The Data Processing programs should be initiated as soon as the output format of the collection programs has been determined.

V. FUNDING

A summary of the funding approved is as follows:

- a. Electromagnetic Pointing System
- b. Aircraft Test Program

Total Approved Program

When the Data Processing requirements have been determined, additional funds, if required, for this purpose may be requested. Current estimate for this work indicated that less than [REDACTED] is needed.

VI. MANAGEMENT

The management structure for implementation of these efforts should closely parallel that in effect for the DORIAN Optical Sensor.

All matters pertaining to systems integration, technical interface, and program master schedules involving the SIGINT elements of

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the overall MOL Program are a function of the Deputy Director, MOL. Matters relating to sensor development and contracting are a function of SAFSP.

Modification of the above arrangements on the basis of local agreement between Deputy Director, MOL and Director, SAFSP may be made as appropriate.

VII. TASK SUMMARY

In accordance with the preceding, the following actions should be taken:

a. A plan for the implementation and conduct of the MOL SIGINT Program should be prepared as described in this directive. This plan should be forwarded to the DNRO through the Director, MOL by 1 March 1966.

b. Prepare a brief description of proposed management arrangements for the conduct of the MOL SIGINT Program, to include Aerospace supporting activity if utilized, names of key personnel, and basic contractor structure, and forward to the DNRO through the Director, MOL by 1 March 1966.

c. Initiate an RFP to cleared knowledgeable contractors for the Electromagnetic Pointing System Study and conduct a three-month study with two or three of the most qualified contractors within funding available.

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d. Initiate action to define the management approach to the Aircraft Test Program, and forward this information expeditiously to the DNRO through the Director, MOL so that necessary implementing action may be taken. Continue activity essential to insure that the Aircraft Test Program can be placed on contract in the shortest possible time upon release of funds.

e. Initiate action to define the Data Processing requirements for the Orbital and Aircraft Programs and submit these to the DNRO through the Director, MOL for approval and funding when firm.

Alexander H. Fly

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