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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE  
WASHINGTON, D.C.

THE NRO STAFF

82 SEP 1969



MEMORANDUM FOR DR. McLUCAS

SUBJECT: NASA Proposals to Study MOL ATS and DORIAN  
Technology

I have prepared a brief memorandum for your signature to Dr. Seamans summarizing the application of the MOL ATS, the GE Mission Simulator, and DORIAN Optical Technology to future NASA needs. This memorandum points out that the NASA study proposals are quite feasible. Further, the fact that they will be carried out under BYEMAN control defers the major policy issues until a later date.

The memorandum also transmits a letter for Dr. Seamans' signature to Dr. Newell accepting the NASA proposals and identifying Colonel Lew Allen as the point of contact to work out the details of implementation. Although Colonel Allen is identified to NASA as the point of contact, I will actually undertake to work out the details of implementation with NASA as an extension of the NRO Staff for these matters. Should I be reassigned once I have completed my MOL close-out tasks, Colonel Allen would, of course, move these implementation responsibilities back into the NRO Staff proper.

I propose that we set up a small task group immediately to meet with the appropriate NASA people and begin the preparation of work statements and plans. To do this, I recommend that we request the assistance of the MOL Office and two or three of the officers previously assigned to MOL now at AFSC; specifically Colonels White, Loret and Gandy. This can be done informally.

*Concur  
McL*

DORIAN

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As soon as we have progressed to the appropriate point I will prepare guidance for you to send to General King. In the near future, I will provide him with copies of the correspondence and seek his advice and assistance as appropriate.

*Ralph J. Ford*  
RALPH J. FORD  
Colonel, USAF

- 2 Atch  
1. Memo for Dr. Seamans  
2. Ltr for Dr. Newell

*7/20  
L. Allan*

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WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

24 SEP 1969

MEMORANDUM FOR DR. SEAMANS

SUBJECT: NASA Proposals to Study MOL ATS and DORIAN  
Technology

NASA has proposed two actions related to continuing examination of their potential for using MOL developed hardware and technology. These are contained in their letters of 12 September 1969 (Atch 1 and 2). These actions involve the Acquisition and Tracking System (ATS) and the DORIAN optics technology.

Regarding the ATS, NASA desires to contract with General Electric Co. and possibly ITEK through the Air Force (SAFSP) to study the applicability of this hardware to their experiments program. This appears to be a straight forward first step and we agree with NASA's suggestion that the existing security guidelines remain in effect during such a study. To support this activity, we should inform the affected termination contracting officer of the need to freeze the ATS and related equipment pending completion of the study and/or transfer of the equipment to NASA. Required from NASA are the funds and a statement of work to form a basis for an SAFSP contract.

Preparation of the work statement might be expedited by providing NASA with the assistance of two or three Air Force officers, now in AFSC Headquarters and thoroughly familiar with the equipment in question. Such an arrangement would also facilitate establishing a DOD/Air Force position of interest and intent regarding the experiment.

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The question relating to the DORIAN optics technology appears equally straight forward and workable through the steps suggested by NASA. Arrangements have been made for a visit to the Eastman facility for the purpose proposed. Mr. Hubbard of the MOL Office will represent the NRO and accompany the party to Rochester.

In general, we feel it is most advisable to conduct all studies related to determining feasibility and desirability of using these equipments within the BYEMAN security system. At the appropriate time the pertinent policy questions will be addressed.

I have prepared a letter for your signature to Dr. Newell expressing our willingness to cooperate in both areas at least to the extent addressed in their request. It also suggests that steps be taken at the working level to prepare necessary work statements, arrange for transfer of funds, and proceed with the task. By separate means, I will enlist General King's assistance with contracting and related activities.

M.L

2 Atch  
a/s

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
WASHINGTON, D.C. 20546



OFFICE OF THE ADMINISTRATOR

September 12, 1969

Honorable Robert C. Seamans, Jr.  
Secretary of the Air Force  
Washington, D. C. 20330

This document consists of 2 pages  
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Dear Bob:

As you know, NASA's long range plans in space astronomy point toward the eventual development and operation of very large diffraction limited orbital telescopes. One step along the way that we are considering is a large stellar telescope (ATM-B) for operation with the second "dry workshop", planned for flight in 1974. We have, with the assistance of the MOL team, taken steps to have Dr. Aden Meinel of the University of Arizona and Messrs. Olivier and Waite from the Marshall Space Flight Center examine the existing MOL hardware at Eastman Kodak. Their purpose is to make a preliminary evaluation as to the suitability of this equipment for stellar astronomy, the steps that might be required to so modify it, and the probable compatibility of the system with the Apollo Telescope Mount and dry workshop. We expect to have their preliminary findings within several weeks.

In the event their report is positive, NASA would see the next step as a detailed technical feasibility study. Under the circumstances, this study would be classified and probably best contracted for by the DOD with reimbursement from NASA. We feel we can progress this far without any commitment being sought or implied as to the actual use of DORIAN systems or technology by NASA.

If the feasibility study were to show significant advantages of such utilization, we could then come to grips with the security and program policy issues that this might raise.

In the longer term, we are vitally interested in the question of how NASA should move in the development and testing of very large optics,

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and what role the classified capabilities — technology and facilities — should play therein. This topic can await further elaboration until the more immediate questions of existing hardware have been resolved.

Sincerely,



Homer E. Newell  
Associate Administrator

cc: Colonel Law Allen, Jr. USAF

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DEPARTMENT OF THE AIR FORCE  
WASHINGTON 20330



OFFICE OF THE SECRETARY

September 29, 1969

[REDACTED]

Dear Homer:

We have your letters of September 12 relating to NASA interest in exploring utilization of certain MOL developed hardware and related technology. It is reasonable, I believe, to proceed with these studies to the extent you suggest and we are prepared to assist as you require.

Colonel Lew Allen of my Office of Space Systems will be the focal point for our support and he will make arrangements as required with SAFSP.

To help prepare the work statement, may I offer the assistance of certain Air Force personnel now in the Washington area, and thoroughly familiar with the equipment.

I would like to have some of our people participate at least in the initial studies involving the ATS. This would permit us to determine at an early date, what further interest we will have in the experiment as it may proceed.

I agree that it is necessary to conduct the initial analyses within the existing security arrangements (the BYEMAN Control System). We will arrange for a suitable method of contracting upon receipt of your work statement and appropriate funds.

As you have suggested, there are a number of policy questions that must be addressed if the results of your initial investigation so warrant. However, such

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considerations are not required at this time and should  
present no obstacle to your immediate plan.

Sincerely,


*B. J.*

Dr. Homer E. Newell  
Associate Administrator  
National Aeronautics and  
Space Administration  
Washington, D. C. 20546

DORIAN

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