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~~1st~~ NATIONAL RECONNAISSANCE OFFICE  
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

30 OCT 1970

MEMORANDUM FOR [REDACTED]

SUBJECT: Analysis Group Projects

With your arrival the analysis group has been brought up to a full complement, and, under your direction, I anticipate increasing responsibilities for you and your staff in the future. Now that you have had a few weeks to become familiar with the NRO, its mission, and the individuals on your staff, I would like to suggest several tasks for you and your group.

A rather complete list of tasks is attached to this memorandum. As you will note, they span the entire range of NRO activities. It is not possible for your group, or even a larger group, to work on all of them simultaneously and produce meaningful and useful results. In fact the tasks are continuing tasks, not tasks which have to meet a certain deadline.

Another factor you must consider in outlining your work is that the tasks can not be performed in isolation of the remainder of the Staff nor without inputs from industry, the NRO Program Offices, and Aerospace Corporation. They will have to make contributions to you just as you will have to assist them.

Taking these factors into consideration, I would like your group to be responsible for studies and analyses of longer duration than the balance of the Staff. The orientation of the analysis group should be toward the future to determine in what direction the NRO should proceed, to emphasize what mixes of equipments and procedures would be most desirable in the future. Cost of new mixes must be traded with the capabilities they would provide.

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[REDACTED]

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[REDACTED]

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Twice a year, usually November and July, the NRO and its Board of Directors make program and budget decisions concerning future activities. We prepare issues from which the decisions are made which determine our program. It is too late for your group to have a strong influence on the November issues. I would like you to direct the efforts of your group so that you can have some influence for the July decisions.

To accomplish this, I would suggest you examine the tasks in the attachment, and with the help of the staff, determine which of these will have important milestone decisions in July. After you have made this survey, please present your proposed program to Dr. Naka and me.

*ML*  
John L. McClucas

Attachment

WORKING PAPERS

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## TASKS FOR THE ANALYSIS GROUP

1. Examine the product of our collection systems to determine whether satisfying the users' stated requirements is an adequate measure of our responsiveness to the users' real needs. To accomplish this task, use the results from other segments of the NRO which now determine how well and to what degree users' stated requirements are satisfied. Determine whether the users' requirements and the systems we employ or plan to employ are well matched. In making this determination it is important to differentiate between requirements stated as a result of technical possibilities and requirements expressing real needs. This is a continuing task.

2. Determine whether we have or will have a proper mix of search, surveillance, high resolution and immediate imagery recovery satellites to meet users' real needs. Will we have enough or too much search capabilities in the future? Will we have enough or too much surveillance capabilities? These questions can't be answered absolutely, but your group can assign costs per target and costs per square mile (perhaps weighted) covered as some measure of effectiveness. Do the tests of targets contain targets of diminishing returns per dollar invested? There have been studies which addressed the value of high resolution. This work should be a continuing effort to identify intelligence gaps and determine whether efforts to achieve higher resolution are worthwhile. Finally, the impact of new systems which recover imagery by electromagnetic transmissions must be evaluated. Will these systems yield necessary redundancy or will they overlap existing capabilities? Can there be a better intermix of imaging satellites than we now plan? One object would be to determine if EOI could replace [REDACTED] or short of that, determine how many vehicles of each type would be required to satisfy projected 1975-1980 realistic requirements.

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3. Compare the roles of collection of imagery by satellite with collection by aircraft, manned and unmanned. Enumerate the proper roles of each type of vehicle and attempt to determine proper mixes.

4. Examine the ELINT/SIGINT satellite and airborne platforms to see how they satisfy requirements. The requirements for ELINT also require examination to determine what differences may exist between real needs and stated needs. After determining a set of realistic requirements, the tasks to be accomplished should be delineated, differentiating between the capabilities of overhead and peripheral collectors. The relation between national collection and reporting resources to tactical collection and reporting resources should be established to determine whether it is possible to derive benefits by closer cooperation.

5. Examine the possibilities of combining SIGINT functions in fewer types of vehicles. Can operational considerations permit combining functions of [REDACTED]

[REDACTED] In making this determination, hardware considerations may dominate the decision. The assistance of other groups in the NRO, Air Staff and elsewhere will be required for hardware considerations. The feasibility of separating the ELINT [REDACTED] should be examined from an operational viewpoint. If this is feasible, can the [REDACTED] be eliminated by having [REDACTED] perform intelligence functions in [REDACTED] [REDACTED] take on the ELINT function?

6. Keep informed of the efforts of the Navy on Ocean Surveillance. Examine the proposed solutions and determine whether there are effective alternatives which warrant consideration.

7. Attempt to establish better specifications for NRO vehicles by reviewing previous work and conducting analyses of the meanings, importance and relevance of terms like contrast, ground resolution, group sample distance, obliquity and signal-to-noise in photographic imagery. These terms must be related to the users' functions like detection, recognition, and mensuration.

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8. Attempt to examine the relative importance of collecting EOB, technical intelligence, and operational intelligence from NRO vehicles compared to non-NRO vehicles. From this analysis determine how to best allocate responsibilities from a DOD viewpoint.

9. Survey the array of National NRO and Service systems to determine the feasibility of system consolidation or intermix. The goal would, of course, be to satisfy more requirements with less cost.

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