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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.

THE NRO STAFF

*Jul 2, 1969*  
*J. L. # 3*  
*M. L.*

MEMORANDUM FOR DR. McLUCAS

SUBJECT: Dr. DuBridge's Comments on the NRO Annex to the Space Task Group Report

PROBLEM:

To assimilate Dr. DuBridge's comments on the draft NRO Annex to the Space Task Group Report into a final version.

BACKGROUND:

On June 4, Mr. Reber asked the ExCom members to give us comments on our proposed (draft) NRO Annex to the STG Report.

PRESENT STATUS:

We have Dr. DuBridge's comments at hand (see Tab A). Except for some minor editorial suggestions, Dr. DuBridge's basic comments deal with our statements regarding NASA's earth-sensing program and the possible usefulness of an arms control satellite to ACDA. The "NASA comments" are spelled out in detail and are changes which generally clarify our own statements. We will have no trouble incorporating them into our report.

The ACDA comment is generalized in the suggestion that we delete references to an arms control satellite, since Ambassador U. Alexis Johnson's NSAM 156 Ad Hoc Committee has this suggestion under consideration at the present time. Colonel Allen and I discussed this reaction to the arms control satellite at some length with Don Steininger last week, pointing out (1) that our write-up treats it only as a suggestion, that (2) its appearance in our report does not constitute a DOD or ExCom position, that (3) we look on this suggestion as probably the most important element in the report, and (4) we would be pleased to add a sentence or two pointing out that Ambassador Johnson's committee is to discuss this

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PAGE 1 OF 3 PAGES

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suggestion. Steininger's counterproposal was that we drop all reference to the satellite from our report and that we ask the ExCom to press Ambassador Johnson to review the idea at an early date. We were not able to identify a deeper basis for Don's concern.

ALTERNATIVE COURSES OF ACTION:

1. Delete the arms control satellite portion of the report. This has the advantage of placating Dr. DuBridge (actually Don Steininger). It has the disadvantage of (a) keeping us silent on a very serious threat to NRP security, (b) keeping us silent on what we consider to be the best solution to the problem of that threat, and (c) letting down NASA, which is anticipating the inclusion of this subject in our report.

2. Retain, as written, the arms control satellite portion of the report. Now the advantages and disadvantages expressed in the first alternative simply reverse.

3. Modify the arms control satellite portion of the report. Under this alternative, we would keep the present write-up on the arms control satellite, but add a sentence to confirm that the concept is under review by the NSAM 156 Ad Hoc Committee. One could, furthermore, touch base with Ambassador Johnson to make sure that this is satisfactory with him (the answer would undoubtedly be "yes"). This has the advantage of (a) permitting us to express ourselves on a very important topic, (b) allaying any fears that we are pre-empting Ambassador Johnson, (c) increasing our rapport with NASA, and (d) saving us from explaining the deletion to Mr. Packard, Dr. Foster, and Mr. Helms. The disadvantage is that one would still be required to advise Dr. DuBridge of a compromise action which does not comply fully with his desire.

4. Following Dr. DuBridge's lead, call for an immediate meeting of the ExCom. Dr. DuBridge says, "I suggest that, as a separate action, the ExCom consider the proposal and decide whether to encourage a 156 Committee review." This alternative has the advantage of getting the arms control story before the ExCom without confronting or irritating Dr. DuBridge. If the meeting were called immediately, it could give us guidance as to how we should handle this item in our report prior to our going into a final, hard version.

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RECOMMENDATION:

Alternatives 3 and 4 look equally attractive to me. We will await your decision.

*Paul E. Worthman*  
PAUL E. WORTHMAN  
Colonel, USAF

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THE WHITE HOUSE

WASHINGTON

June 26, 1969

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MEMORANDUM FOR

Director, National Reconnaissance Program

This memorandum responds to your request for comments on the draft, "National Reconnaissance Program Annex to the Space Task Group Report," dated 4 June 1969.

I think the technological trends and the Program projections that are summarized in this report are reasonable estimates of what we can anticipate for the NRP in the next decade and I concur in these sections of the report.

I would, however, suggest the changes indicated in the attached pages for the paragraph titled "NRP Relationships with NASA: Post-Apollo Goals." I would also change DOD to NRO in the last two lines of page 18.

In addition, I think we should delete the references to an Arms Control Satellite. It seems to me that the policy review of such a proposal falls within the purview of the NSAM 156 Ad Hoc Committee and should be taken up there rather than being suggested at this time to the Space Task Group. This is an important question, however, and I suggest that, as a separate action, the EXCOM consider the proposal and decide whether to encourage a 156 Committee review.

*Lee A. DuBridge*  
Lee A. DuBridge  
Science Adviser

cc:Mr. Packard  
Mr. Helms

Attachment - Excerpt from cy 3 of BYE 12894-69  
(pages 13, 14-a and 14-b w/suggested changes)

HANDLING INSTRUCTIONS  
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Control System Only~~TOP SECRET~~NRP Relationships with NASA: Post-APOLLO Goals

For some time, NASA has been exploring the use of satellite-borne sensors to locate and study earth resources. Experiments involving hand-held cameras operated by GEMINI and APOLLO astronauts have not been politically offensive to other nations, largely because the photographs are at a fairly gross resolution, the "targets" are carefully selected, the film is reviewed by an inter-agency security panel before it is released to the public, and hostile states such as the USSR and Red China are either not overflown or not now photographed. Future possible NASA applications, involving oceanography, forestry, geology, geography, and agriculture, must be planned and controlled very carefully, for the line between economic research photography and economic intelligence photography is very thin and casual experimentation could trigger challenges to the legitimacy of not only the NASA earth-sensing program but of the National Reconnaissance Program. In 1966, U. Alexis Johnson's satellite reconnaissance policy committee met again and developed policy to cover this potential danger area. ~~As-a-result,~~ Within the guidelines established by that committee, NASA and the ~~DOD are now~~ NRO have been proceeding on a cooperative basis in planning a NASA earth-sensing program which will meet our nation's scientific needs without jeopardizing its ability to gather intelligence from space.

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Page 13

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In addition, the President's Science Advisor has ~~sponsored policy studies and requirement conferences in an effort to determine how available space intelligence photography can be applied to the needs of the civil government without hazarding the security of the National Reconnaissance Program.~~ These studies and conferences have been, with the endorsement and support of the Director of Central Intelligence and the Deputy Secretary of Defense, sponsors a committee with membership from the non-defense agencies which identifies ways in which the space intelligence photography can be used by these agencies within the present security and policy regulations and provides a channel for passing these needs to COMIREX. This committee has had a strong positive influence in coordinating the needs of the civil community and assisting to plan a reasonable earth-sensing program. In order to encourage further progress, consideration should be given to allotting a small but regular percentage of film from each search satellite to these purposes.

There are two new areas in which NASA could benefit from closer technical ties with the Department of Defense NRO. First, the DOD maintains a reconnaissance wing of SR-71 aircraft whose main purpose, in the event of war, is nuclear strike assessment. Both DOD and CIA maintain U-2 aircraft units. At present, some of these aircraft fly training missions and some are stored in flyable condition. Some SR-71's

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Page 14-a

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and possibly U-2's could be have already been made available for NASA civilian earth-sensing surveys. Photography from SR-71's should be these aircraft has been and can continue to be very useful to NASA and its user community in developing baseline mosaics and in evaluating the possible return to be expected eventually from satellite photography. In addition, ~~aircraft like SR-71's offer many advantages over satellites as sensor carriers; their operating cost is much less than that of satellites, a wide choice of sensors is possible; the survey of a nation can be carried out faster by aircraft than by satellites; aircraft can be selectively employed; and they need offer no political risks.~~ An intensive program of earth-sensing from aircraft over selected cooperating countries could provide a useful assessment of the utility of earth resources surveys prior to embarking on a very expensive satellite program. This support should be continued and strengthened.

Second, NASA has concluded that its initial earth resources satellite will be more cost-effective if it uses an electronic imaging system, rather than film-recovery cameras. It is also quite possible that highly refined electronic imaging sensors will permit economy and improvement in NRP operations in the future. It may be appropriate and mutually advantageous for NASA to make a significant commitment to advancing the technology of high resolution electronic sensors to replace film-camera systems.

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Page 14-b