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WASHINGTON, D.C.

THE NRO STAFF

April 1, 1968

Dear General Smart:

I have just received a copy of the minutes of a March 19, 1968 meeting of the 303 Committee at which the question of APOLLO 6 photography was discussed.

The 303 Committee has, in connection with this issue, approved the thrust of a paper (BYE 12849-68) prepared by Dr. Flax for Mr. Nitze, which Mr. Nitze forwarded to the 303 Committee principals for their consideration on March 15. I have attached a copy of the paper for your information.

You will note three recommendations outlined on page 4 of the paper. The first has already been accomplished by the DOD/NASA Survey Applications Coordinating Committee. The second has been discussed by the 303 Committee which has directed that "all photography, either domestic or foreign, should be screened by the COMIREX mechanism prior to public release." On the third recommendation, the 303 Committee expressed the following judgment:

"It was recognized that the long-standing point of sensitivity in satellite photography is the possible accusation of violation of sovereignty with the USG being maneuvered into a position where the question of overflight permission is raised. A careful judgment in the release of material will help to sidestep this controversy."

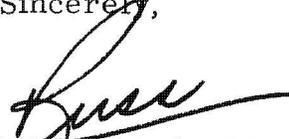
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I trust this information will be of some help.

Sincerely,



RUSSELL A. BERG
Brigadier General, USAF
Director

Attachment

General Jacob Smart
Asst Administrator for DOD and
Interagency Affairs
National Aeronautics and Space Administration
Washington, D. C. 20546

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OFFICE OF THE DIRECTOR

March 12, 1968

MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

SUBJECT: APOLLO 6 Flight Photography

I understand that NASA will shortly bring to the 303 Committee a request for approval of satellite photography from APOLLO 6 scheduled for March 26, 1968. The NASA description of the planned operation is included at Tab A. 1.

The subject of NASA satellite photography was considered in depth by the NSAM 156 Ad Hoc Committee in the summer of 1966 (the final report dated July 11, 1966 is attached at Tab B). There are numerous technical and political factors considered in this report. However, the conclusions of most direct relevance to the current NASA request are:

1. Current NASA photographic activities should have an optical ground resolution no better than about 60 feet from low Earth orbit and 2.
2. Public discussion of future possibilities (for the Earth Resources or Earth Sensing Program of NASA) should be limited to 10 or 15 feet for the next five years.

The aim of these restrictions was to avert disclosure of the quality of American satellite optical technology as it is currently utilized in the NRP and also to minimize certain political problems which could arise if high resolution photography of too much value in military or economic intelligence were suddenly shown for foreign areas. Our national position, of course, is that such photography is perfectly legal, but it has also been our practice not to put this principle to a sudden and dramatic test disclosing the ultimate implications of that position. 3.

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As far as we are aware, the NASA plans for APOLLO 6 photography take cognizance of the above constraints. However, the actual intelligence value of photography from space depends upon detailed technical and operational considerations, including not only the gross characteristics of the camera (e.g. focal length and f number) but also the scale of the photography, the satellite and orbit characteristics (i.e. accuracy of stabilization, orbital height, etc.), the film, and the operational conditions under which photographs are to be taken (e.g. time of day, time of year, latitude and longitude of photographic targets). We have had neither the detailed data nor the time to conduct an adequate analysis of the APOLLO 6 photographic plans. Therefore it is not possible for us to state with certainty what kinds of military, political or economic intelligence information may be derived from the APOLLO 6 photography. NASA has not introduced information concerning their plans for this camera experiment in the two DOD/NASA coordination bodies dealing with this area: the Survey Applications Coordinating Committee and the Manned Space Flight Policy Committee. Review by these bodies is essential if we are to have a valid understanding of all possible implications of this planned operation.

4.

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5.

In order to give a general indication of the kinds of information which might be derived from this photography which has a nominal resolution of 100 feet, we have provided, at Tab C, a set of photographs from the KH-4B (CORONA), the KH-7 (original GAMBIT) and KH-8 (current GAMBIT). These materials are taken from the stellar index cameras of 1 1/2" focal length on the KH-7 and 3" focal length on the KH-4B and KH-8 and range between 76 and 100 foot resolution. It can be seen that considerable intelligence information of a gross nature is contained on the 20X enlargements even though the contact print seems to contain little information. In particular, the type and location of air fields are easily discernible from such photography. The NASA plan is to acquire stereoscopic photographs which will provide considerably more information than can be discerned from these single photographs.

6.

The NASA proposal is to take photographs on only one orbit, which overflies the United States, Africa and Australia, thereby avoiding photography of many sensitive areas such as the Middle East, the Indian-Pakistan border areas and the Soviet Union. However, since subsequent orbits of the same mission will, in fact, overfly sensitive areas, release of this photography may simply give an indication (or an excuse for claim-

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ing) that we withheld photographs taken on subsequent orbits.

The open release of photography of this quality taken from space is not being proposed for the first time. Previously hand-held cameras were used by the GEMINI astronauts. The high-quality photographs so taken in the GEMINI Program were treated as classified and developed in classified facilities, reviewed at NPIC by NRO and other members of the intelligence community prior to release. Among the photographs withheld were those illustrating the capability to show airfields (one withheld photograph of Bergstrom Air Force Base approximated 20-30 foot resolution, at which it was possible to identify and count the B-52s on the base). This same procedure should be followed in the present case. It should be noted in this connection that the procedure causes some unhappiness among the NASA personnel at the working level, many of whom believe that everything they do should be immediately publicized in the newspapers.

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The ostensible purpose of the NASA photographic experiment in APOLLO 6 is to record engineering data on spacecraft orientation. (The camera has previously been flown in APOLLO 5 for this purpose). However, it must be noted that this is neither the most convenient nor cost-effective method of obtaining such data; a star camera would do much better and is the method used in the NRP satellites. NASA, however, also states that the engineering film data will "be used by the Earth Resources Survey Program participants to provide an insight into the value of this type of photography for each of their disciplines," and that "It is expected that the more interesting photographs will have a significant public information value".

10.

11.

The statement made by NASA that the Mercury and GEMINI photography from orbit "resulted in no unfavorable reactions" is generally true. The Communist Chinese did react unfavorably with a public statement that the flights were obviously for the purpose of military reconnaissance. However, this theme was not taken up by the other countries and overall there was no adverse reaction. However, as noted above, the screening processes withheld from public release those photographs which could have created more reaction.

12.

I recommend the following position on the proposed APOLLO 6 satellite photography:

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1. A detailed review of the technical and operational factors should be carried out by the Survey Applications Coordinating Committee to identify more positively the characteristics of the photographic equipment and the character of the photography which is to be expected. (Not necessarily an item for injection into the 303 Committee proceedings.)

13.

2. A screening procedure for photography resulting from this flight similar to the one used for the high-quality GEMINI photography should be established.

14.

3. The 303 Committee should consider the political sensitivity of the mission overall at this time (keeping in mind that the implication may exist or be created that photography was taken on orbits other than those on which photography is actually taken or released). The particular foreign countries planned to be overflown are Mauritania, Mali, Upper Volta, Ghana, Togo, Dahomey, Gabon, Congo, Zambia, Mozambique, Malagasy, Malawi and Mexico. The issue which we particularly want to avoid is any implication that the permission of the countries overflown is required for such photography and therefore great care must be taken about announcements of the test plan prior to the flight, since a confrontation or at least a dilemma will have to be faced if one of the countries to be overflown objects.

15.

16.

If the overall political sensitivity at this time is judged to be low both for the countries being overflown and in the world at large, there appears to be no reason why this photography should not be allowed to proceed since it is apparently in accordance with the limitations imposed by the NSAM 156 Ad Hoc Committee, with a provision for review and screening of photography prior to release. However, a technical and operational review of the camera equipment and the experimental plan should be conducted by the Survey Applications Coordinating Committee prior to the flight; this is in accordance with existing arrangements between DOD and NASA which do not seem to have been followed in this case. I will proceed to arrange such a review.

17.

Alexander H. Flax

Alexander H. Flax

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Comments and notes

Keyed to right margin

numbers —

Thurman

4/2/68

1. Sent to 303 29 Feb - 2 weeks before date of memo
2. 156 says .1 million in when than 60 feet
3. Not "practice", but Reference policy (with teeth)
4. Two meetings should be done enough - and 100% it did introduce 502 into both!
5. Review by MSRPC not deemed necessary - (but memo from Kansas, perhaps)
6. 3" system should provide better than 16-foot quality noted here.

7. Apollo 6 will not officially hear East etc - because of lunar trajectory
8. Only the question was classified - rest of transcript was released.
9. A gratuitous (and untrue) statement
10. "Ostensible" suggests chic-
anery
11. Star cameras are expensive while cameras are convenient and cheap.
12. Sounding because it was a J DOD experiment, not because SFFBS same to the rescue of the national interest.

13. SAC has done this —
but what does the
303 reference mean?
14. Established in advance
by NASTA — not at
SDFSS suggestion!
15. Same errors as # 7 —
no overflights of sensitive
areas.
16. What care? Press release
is now out (3/25) and
no warning given NASTA!
17. Dr. Fox did not arrange
review; and technically
SAC is not involved
in a .146 device.