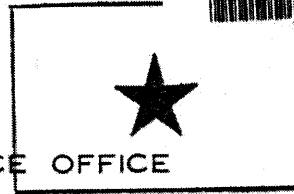


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(S) NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

July 6, 1967

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UPWARD

MEMORANDUM FOR DEPUTY SECRETARY OF DEFENSE

SUBJECT: National Reconnaissance Program (NRP) Issues and Pending Decisions

This paper is intended to briefly summarize major problem areas and outstanding issues in the NRP. The principal areas of interest or concern are as follows:

1. Search Systems: Initiation of development of the HEXAGON system to replace the current CORONA system was authorized in September 1966. Work on the camera was initiated first since this represented the longest lead time item and would pace the rest of the program. Originally this system had been strongly advocated by the CIA and had been made the subject of a specific USIB requirement laid on the NRO (during Dr. McMillan's tenure). This USIB requirement in itself was unusual in that it was not really an intelligence collection requirement but a statement of system parameters. This type of "requirement" prevents the NRO from optimizing details of system design to meet real collection needs and we have been working with the USIB and its Committee on Overhead Reconnaissance (COMOR) to achieve a better understanding of this point.

In the spring of this year, Mr. Helms asked us to hold up initiation of other contracts on HEXAGON pending a review by his staff of the cost effectiveness and requirements for the HEXAGON system. This review was completed and the hold up request was withdrawn. Last month, I visited Perkin-Elmer, the camera contractor, and determined that their activities were now organized and manned to

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the point where other elements of the system needed to go ahead. A paper calling for ExCom approval of source selections for the other elements of the system will be circulated shortly.

Another issue in the HEXAGON program is whether to include in the program a very large, heavy and costly terrain mapping camera to meet a validated USIB requirement for highly accurate large scale maps (1:50,000). In line with a practice we have been following, we will indicate to the USIB the cost differentials resulting from meeting those more stringent requirements before proceeding with development.

Because the program schedule is now aimed at a first launch in 1970 rather than 1969, careful attention will have to be paid to providing sufficient overlap of CORONA vehicles. At the present time, we contemplate an overlap of only four CORONA vehicles during a six month period. We will probably have to make a decision during FY68 to procure some additional vehicles for the overlap period in order to insure the availability of search systems in the event HEXAGON development is delayed.

2. Pointing Systems: The last flight of the GAMBIT system took place in June 1967 completing an overlap period of almost a year since the introduction of GAMBIT-3 system (since GAMBIT will no longer be flown, the suffix "3" will shortly be dropped from the advanced GAMBIT system). Six flights of the GAMBIT-3, of which five were successful, were conducted during FY67. In general, system performance was excellent except for the



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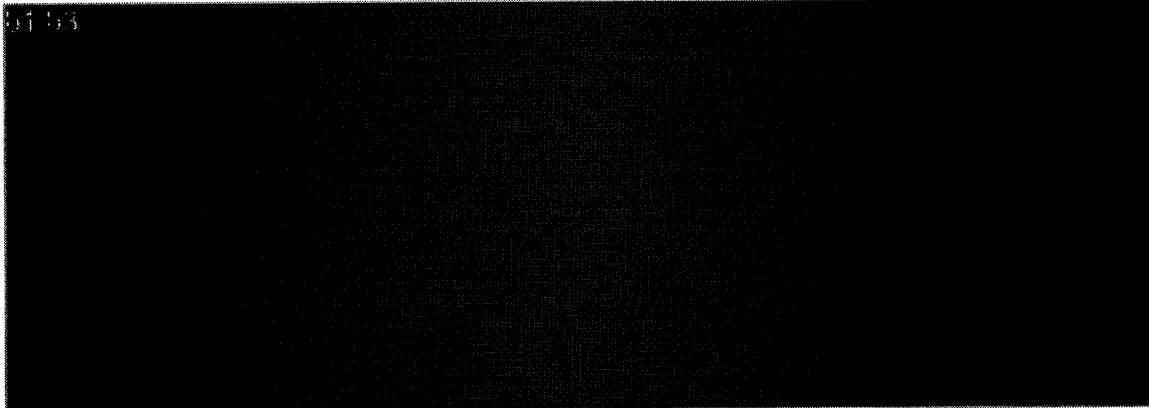
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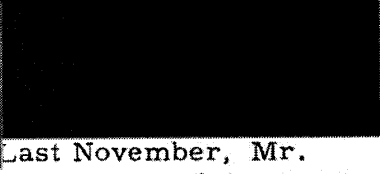

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3. SIGINT: Current NRP activity in SIGINT consists of operation of a 01 53 collection satellites (POPPY,



Last November, Mr. Helms wrote to Mr. Vance and requested that, as a matter of the greatest national urgency, increased effort be placed upon collection of SIGINT related to the Soviet Anti-Ballistic Missile/Anti-Earth Satellite (ABM/AES) activities. Dr. Hornig has reiterated that this is a major White House concern. A special committee, headed by Mr. Harry Davis, my technical assistant, and including NRO Staff, CIA, SAFSP and NSA participation, was formed to consider major new systems. In the meantime, we recommended certain immediate actions on system procurements and operational activities which could be effected during FY67. Based on the Davis Committee report,

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A detailed recommendation on this system will be

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submitted to ExCom in the next few weeks. The SIGINT program is undergoing very rapid technical progress and expansion in capability. However, practically all programs are beset by cost overruns.

4. OX CART Program: As a result of a BOB/DOD/CIA study last year, a decision was made by the President to phase-out the OXCART program during FY 1968. Initial phase-out of OXCART aircraft was to have been initiated in July 1967 with the mothballing of two aircraft culminating a complete phase-out by December 1967. The OXCART contingency plans, SKYLARK (Cuban operations in the event of hostile action against U-2s) and BLACK SHIELD (deployment of three aircraft to Kadena for operations in S. E. Asia and China), were to have been taken over by Air Force SR-71s. However, in May of this year the President directed the BLACK SHIELD deployment but without authorizing overflights of China. As a result the CIA OXCART program office submitted to me two options for modifications of the phase-out plan. The first would have delayed all phase-out until December 1967 and the second would have delayed phase-out throughout FY 1968 with a decision to continue beyond that left open. I recommended the first option to Mr. Vance. After consultation with Mr. Helms and Mr. Schultze of BOB, he directed the modification of the original phase-out plan only to the extent of retaining one of the two aircraft scheduled to be mothballed in July 1967. One problem with the SR-71 takeover of OXCART responsibilities is the delay in achievement of satisfactory ECM capabilities. We now have expedited the ECM program to achieve three operationally suitable SR-71 aircraft in September.

The approved cover story for the BLACK SHIELD deployment to Kadena is that the aircraft are "experimental test bed versions of the YF-12A/SR-71 deployed to Kadena for field tests." As was anticipated, after two weeks of operation from Kadena the aircraft were noticed by

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the Okinawan press. The prepared cover story was given to them with a "no comment" reply to all the additional questions which naturally ensued. Mr. Vance has expressed concern over the possible allegations of lack of credibility which may be attached to this operation and cover story. He has asked Mr. Katzenbach to query our Ambassador to Japan, Mr. Johnson, on the advisability of openly announcing that these aircraft are engaged in reconnaissance over North Vietnam. While this in itself would not be a surprising announcement in view of all our other reconnaissance activities over Vietnam, the CIA involvement in this program does pose special problems, and I am certain that their reaction to such an approach would be one of concern.

5. TAGBOARD Drones: This Mach 3, 90,000 ft altitude drone program is largely supported by the DOD in the ExCom. The CIA has always been lukewarm toward drone programs; Mr. Vance on the other hand has always been a strong adherent of doing reconnaissance of denied areas unmanned if at all possible. In the FY 1968 budget review, the BOB recommended that this program be slipped in schedule and reduced in funding or cancelled outright. Mr. Vance made this an issue for the President, who decided in favor of continuing the program. Although there were two reasonably successful flights of this drone under the original concept of launching from an OXCART, an accident resulting in the loss of a launch aircraft resulted in a re-evaluation of the program and a decision to convert to launch from a B-52 with rocket assist of the drone to altitude. The first launch from B-52 is to occur in August. The problem area at present is in qualifying the booster rocket.

6. NASA Lunar Mapping and Earth-Sensing Program: In 1963 a DOD/CIA/NASA agreement made available to NASA the GAMBIT camera (on a BYEMAN classified basis) for purposes of validating the safety of manned lunar landing sites in the event that SURVEYOR and LUNAR.

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ORBITER photography were not obtained or proved inadequate. According to the agreement, lunar photography could be sanitized by eliminating camera scale factors but earth photography, if required for checkout, would remain in the TALENT-KEYHOLE system. The project has the NRO code name UPWARD and is known as the Lunar Mapping and Survey System (LM&SS) in NASA.

It now appears that the LM&SS is not needed to validate lunar landing sites, in view of the success of SURVEYOR and LUNAR ORBITER; however, in the meantime, a great deal of pressure has been built up on other programs such as APOLLO Applications, Earth Resource Surveys, Earth-Sensing, and the like. The APOLLO program office wants to retain the LM&SS, ostensibly to do lunar mapping for scientific purposes; on the other hand, at lower working levels, APOLLO Applications Program planners are frequently reported to refer to the LM&SS for earth-sensing. The latest recommendations of the NSAM 156 Ad Hoc Committee limit current NASA earth-sensing programs to 60 feet resolution on compared to the two feet of the GAMBIT camera.

Dr. Hornig has expressed concern over plans for flying the LM&SS in earth orbit, and has expressed doubt that an acceptable cover story can be devised in view of the intense publicity on the APOLLO program activities. We, too, have serious doubts about security and the wisdom of proceeding with the LM&SS. Dr. Hornig has asked NASA to re-evaluate whether the system is really needed. We are awaiting their reply.

7. The attached memorandum, sent recently to Mr. Vance, summarizes the current NRP budget problems. Many of the problems or potential problems relate directly to the upcoming decisions and issues discussed above.

Alexander H. Flax
Alexander H. Flax

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Attachment



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

OFFICE OF THE DIRECTOR

June 26, 1967

MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

SUBJECT: FY-1968 Obligation and Expenditure Indications
for the NRP

In accordance with your request, an initial reassessment of NRP FY-1968 obligations and expenditures for the NRP has been made to determine the extent of possible obligation and expenditure reductions in elements of the program as well as any additional fund requirements which have been identified or are foreseen. The possibility of slipping major development programs, such as **01 53** or HEXAGON, which are already under way (and in which substantial increase in program cost would result from program slip) has been considered only to the extent that technical considerations in the HEXAGON programs dictate changes in the schedule. In cases involving program options which have not yet been completely assessed, the cost figures cannot be regarded as firm. However, the figures used are best current estimates for each program.

Obligations:

In the aircraft programs, in relation to the program approved by the Ex Com for the FY-1968 President's Budget, we expect that the programs will now cost about **01** less than budgeted, primarily due to a reduction in cost of the OXCART program of about **01**. My recent memorandum to you on the CIA OXCART program options indicated that the deployment coverage would cost about an additional **01**. Therefore under option one, we would have about **01** available for other purposes. OXCART option one, to delay initial phaseout actions, would require about **01** additional. OXCART option two, to continue the program indefinitely, would instead require an additional **01** in FY-1968. Accordingly, if this option were chosen, we would require an increase in funding of the Aircraft programs of about **01** above the President's Budget.

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