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GAMBIT

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OSD Study of DOD Requirements
for Satellite Photography

December 21, 1967

On December 21, 1967 the Director, BOB proposed a joint study of the planned GAMBIT-3 launch schedule by OSD, CIA and BOB working in cooperation with the NRO, DIA and the appropriate USIB committee staff. Suggested scope of the study was to include:

1. the improvements in the capabilities of the GAMBIT-3 system now under development and planned
2. the planned introduction of the HEXAGON general search and surveillance system
3. the improved target programming techniques proposed by the COMIREX

On December 29, 1967 Dr. Flax commented in detail on the BOB proposal to the Deputy Secretary of Defense and suggested the specifics of a response to the BOB.

On January 8, 1968 Dr. Hornig commented on the BOB proposal. While agreeing that the question raised by BOB ought to be resolved expeditiously, he did not favor the ad hoc OSD/CIA/BOB study group as the mechanism for achieving this end.

On January 26, 1968 Dr. Foster and Dr. Enthoven jointly addressed the proposed BOB study by substantially concurring in Dr. Flax's recommendations. They proposed a joint study conducted under the auspices of the DOD, and suggested

1. a response to BOB stating that the proposed study by OSD/CIA/BOB not be initiated, but that, first, a review with DOD of requirements for satellite photography and the relative value of different levels of coverage be undertaken

2. a memo internal to DOD establishing such a review

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On January 26, 1968 the Deputy Secretary of Defense responded to BOB as suggested in 1., above and established within DOD a study to review DOD needs for satellite photography for the next five years. The study was to consider:

1. the relative value of varying degrees of coverage of different classes of targets (where coverage includes frequency, timeliness, resolution, and quality)
2. using this value analysis, the relative importance of different levels of photographic satellite reconnaissance
3. methods whereby requirements can be evaluated and presented

The study was to be conducted under the guidance of Gardiner Tucker, Deputy Director DDR&E (E&IS) and Ivan Selin, Deputy Assistant Secretary of Defense (Strategic Programs). The study team would consist of members from DDR&E, OASD(Admin), OASD(SA) and DIA and be directed by Herbert D. Benington. The Director of DIA would arrange, as necessary, for participation by the Military Departments.

EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET

WASHINGTON, D.C. 20503

DEC 21 1967

Honorable Robert S. McNamara
Secretary of Defense
Washington, D. C.

Dear Bob:

Following up our discussion on December 14 concerning the GAMBIT-3 launch schedule and the proposed AGENA-E upper stage development, I suggest funding both programs in the FY 1969 budget at the DOD-proposed levels and directing a joint OSD/CIA/BOB study of the GAMBIT-3 launch schedule requirement.

During the course of the FY 1969 budget review, a number of questions arose concerning the planned GAMBIT-3 launch schedule of nine launches in fiscal year 1969 and seven a year thereafter. The Director of Central Intelligence has ordered a review by the United States Intelligence Board of the target coverage requirements and the related number of successful launches of the GAMBIT-3 system which is needed. This review, now in process, may well result in a reduction of the required number of successful launches per year based upon only the present GAMBIT-3 capability. In addition, planned introduction of the HEXAGON photographic satellite system (with the capability to cover some surveillance targets) and the possible addition of an improved and higher thrust upper stage (AGENA-E) should make possible additional reductions in the planned launch schedule in fiscal year 1971 and beyond. Contracts for the procurement of boosters and payloads to be used in this period are to be entered into early in fiscal year 1969 (November 1968).

Since our discussion there has been additional communication between our staffs, including Dr. Flax's letter to Mr. Hoffman of December 15. These exchanges indicate that additional analysis is needed and that, due to the time constraints of arriving at a final FY 1969 budget figure, the most appropriate action seems to be to provide the DOD-proposed funding for the GAMBIT program of \$226.9 million in the FY 1969 budget. This could be done with the understanding that the funds for procurements which would be affected by the study would be deferred from obligation within the Department of Defense pending a thorough analysis of the requirements, the planned capabilities, and the costs of alternative launch schedules.

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Due to the uncertainties surrounding the planned G-3 program and its related funding requirements, I propose that there be a joint study of the planned GAMBIT-3 launch schedule by staff of the Office of the Secretary of Defense, Director of Central Intelligence, and the Bureau of the Budget, working in cooperation with the National Reconnaissance Office, the Defense Intelligence Agency, and the appropriate committee staff of the United States Intelligence Board. I suggest that the scope of the study include: the improvements in the capabilities of the GAMBIT-3 system now under development and planned; the planned introduction of the HEXAGON general search and surveillance system; and the improved target programming techniques proposed by the Committee on Imagery Requirements and Exploitation of the United States Intelligence Board. If you and Dick Helms concur in my proposal for this study, the terms of reference should be developed for our approval as soon as possible and the study completed by May 1, 1968, so that a determination on the need for future procurement can be developed prior to the negotiation of new procurement contracts in November 1968. I have sent a copy of this letter to Mr. Helms.

If you agree that the study should be conducted, you might designate someone from your staff to serve as your representative on the study group.

The contact on this matter in the Bureau of the Budget is Mr. C. W. Fischer, Assistant Director, International Programs Division.

Sincerely,



Charles L. Schultze
Director

cc: Mr. Helms
Dr. Hornig

GAMBIT/HEXAGON

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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

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December 29, 1967

MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

SUBJECT: BOB Proposal for Study of GAMBIT III Launch Schedule

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The BOB proposal for a GAMBIT III launch schedule study, which I discussed (on the basis of a draft) with you and Mr. Fisher of the Bureau of the Budget on December 19, 1967, and which was sent in final form to the Secretary of Defense on December 21, 1967, prompts the following comments:

1) There is no need for additional study with respect to any NRO function i.e., the number of launches required to meet a given statement of intelligence requirements, or the costs, schedules and capabilities as related to alternative statements of requirements. I make this point because subsequent to our discussion of December 19, Mr. Fisher is reported by both Mr. John Bross of the CIA and Mr. Don Steininger of Dr. Hornig's office to have quoted me as stating that I had neither the time nor the staff to perform the necessary NRO studies related to GAMBIT launch vehicle schedules. You will recall that my statements related entirely to the analytical review of requirements for which I do not have the responsibility, nor correspondingly the time and staff.

2) The validation of requirements is currently a USIB responsibility. Under the charter of the NRO, we are bound to honor (within the limitations imposed by budget and EXCOM direction) USIB statements of requirements. However, we can and do exchange data with COMIREX and USIB on the NRO collection cost implications of alternative requirement statements.

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3) Since the GAMBIT III study proposed by the BOB, as I understood it, related primarily to the statement of requirements for high resolution satellite coverage, I pointed out that this is primarily a matter for the USIB and not for the NRO per se. I understand from John Bross that the BOB memorandum to the Secretary of Defense was not properly coordinated with Mr. Helm's office prior to its transmittal, although the copy sent to Mr. Helms by Mr. Schultze indicates the latter's belief that it was so coordinated.

4) The proposed study appears to be a one shot random effort to resolve the problem of requirements formulation. The question of GAMBIT launch schedules arose in the first place because Mr. Fisher was under the erroneous impression that in calculating launch schedules, the NRO did not take into account the GAMBIT vehicle improvements beyond vehicle No. 23, in spite of repeated explanations to the contrary in the month preceding the EXCOM budget meeting.

5) The recognition that there was a requirements definition problem with respect to high resolution satellite photography came over a year ago. The principal adversaries are CIA and DIA, with DIA heavily on the side of more coverage. The present schedule was arrived at as a compromise schedule by the USIB chairman, Mr. Helms, about a year ago. Subsequent studies have been under way to attempt to better define and validate these requirements. The latest results of these COMIREX and USIB deliberations were expected in December. However, this USIB action has now been delayed into mid-January.

6) I doubt very much that the proposed BOB study is a practical solution to the overall problem of requirements definition and validation. The target lists for intelligence collection, the degree of urgency attached to certain coverage, and such collection program factors as the degree of confidence in the HEXAGON first launch date will vary with time. It is impractical to expect that a one-time study of the kind proposed by the BOB will resolve the continuing problem.

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7) If there is a general feeling that more adequate analysis of requirements should be undertaken, it appears to me that there are two levels at which this could be done and probably the problem should be attacked at both levels. Within the DOD, intelligence collection requirements are processed through the DIA to the USIB. The DOD could inject at this stage some method of assigning not only a priority but a value to each major requirement. Second, at the USIB level a collation and integration of the requirements and related values submitted by the participating agencies could be undertaken.

8) At the present time, there is no group other than the EXCOM at which the senior managements of the DOD and the CIA (the principal USIB participants in both generation of requirements and intelligence collection) formally meet to review resource requirements resulting from intelligence collection requirements. This leads the BOB to inject requirements issues into the EXCOM which are not primarily the concern of the NRO, for whose management the EXCOM presumably exists.

In light of the above factors, I recommend that you (after consultation with Mr. Helms) reply to the BOB memorandum by indicating that requirement studies such as the one proposed are properly the function of the USIB as the senior coordinating and validating agency for intelligence collection requirements, and that the member agencies of USIB (including the DOD) have a similar unilateral responsibility for requirements submitted by them for USIB review and validation. As indicated in Mr. Schultze's letter, a review of the GAMBIT III launch requirement is currently in process by the USIB and certainly no action specifically with respect to GAMBIT requirements ought to be taken prior to completion of that review. More generally, the DOD plans to take action to establish improved methods of evaluating its intelligence collection requirements and relating them to the probable value. At the same time the DOD will work with the DCI to establish the necessary mechanisms for introducing such factors into COMIREX and USIB requirements reviews.

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Further, there has been in process between Dr. Flax and Mr. Helms, for several months now, planning for coordinating the schedules of USIB requirements reviews with NRO budget submittal and contract action dates so that timely information may be made available to all management levels concerned. The mechanism for this coordination has now been agreed on and will be in operation shortly.

Alexander H. Flax

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

OFFICE OF THE DIRECTOR

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January 8, 1968

MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

SUBJECT: BOB Proposal for Study of the GAMBIT-3 Launch Schedule

Dr. Hornig, in his letter to you of January 8, 1968, has addressed the subject of the BOB proposal for a joint OSD/CIA/BOB study of the GAMBIT-3 launch schedule requirement.

The main thrust of Dr. Hornig's letter is that, while he agrees that the questions raised by the BOB with regard to GAMBIT-3 flight schedules ought to be resolved expeditiously, he does not favor the ad hoc OSD/CIA/BOB study group as a mechanism for achieving this end. Rather, since he sees that there is a continuing need for dealing with intelligence requirements and related collection system resource allocations, he favors strengthening the capabilities of the USIB and the NRO to handle such problems effectively.

In general, I believe that Dr. Hornig's views are consistent with those expressed in the letter to Mr. Schultze, prepared for your signature and forwarded to your office on January 5, 1968. However, the latter document is less final in tone, since it suggests that the question of the ad hoc study could be re-examined after completion of the current USIB review later this month. I believe that such an approach is still the most reasonable one to take at the present time, since if the USIB cannot satisfactorily resolve (or propose a reasonably expeditious plan for resolving) current requirements questions, an ad hoc study group may still be necessary.

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Alexander H. Flax

Alexander H. Flax

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THE WHITE HOUSE

WASHINGTON

January 8, 1968

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Dear Paul:

In Mr. Schultze's recent letter to Mr. McNamara, he lists some questions concerning GANBIT-3 flight schedules which, I agree, must be studied and answered expeditiously. However, I disagree with the mechanism that he suggests to attack the problem and I want to let you know the basis for my objection.

I think we must recognize that we are facing here the typical and inherently difficult problem of establishing requirement priorities and then compromising what we would like to have to accommodate limitations imposed by technical capability and financial resources. We should not be surprised that conclusions are not easily arrived at -- there is necessarily a great deal of qualitative judgment involved in listing priorities and the task of defining system capabilities and effectiveness is complex and time-consuming. In many of our activities these problems are compounded by the fact that we are not always able to identify a homogeneous and manageable group representing the user nor an integrated analysis group to define system alternatives. Fortunately, in the reconnaissance programs, it seems clear that COMOREX, for the USIB, and the NRO have these functions.

It seems to me then that the problems raised by Mr. Schultze should be addressed by existing organizations and the creation of an ad hoc study group seems unnecessary. Furthermore, since there is a continuing requirement for program studies of this kind, I think it is in our best interest over the long run to make a conscious effort to strengthen the NRO and COMOREX capability and sharpen their mission responsibility. I am concerned that the establishment of an ad hoc study group will have the opposite effect and for a somewhat narrow analysis objective will dilute their ability to deal with other, perhaps more important, problems of the future.

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At its last meeting EXCOM agreed that the issues raised by the BOB should be addressed expeditiously and I think we should now rely on the responsible organizations to carry this out.

Sincerely,



Donald F. Hornig
Special Assistant to the President
for Science and Technology

Honorable Paul H. Nitze
Deputy Secretary of Defense
Washington, D. C.

cc:Mr. Helms
Mr. Schultze

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ROBERT GAMBETT McNAMARA

26 JAN 1968

MEMORANDUM FOR MR. NITZE

SUBJECT: Photo Reconnaissance (U)

On December 21, Charlie Schultze wrote Bob McNamara and proposed a tripartite BoB, DoD, DCI study of requirements for satellite photography. This study would provide a basis for reviewing the FY 1969 program for the GAMBIT-3 and improved AGENA-E upper stage. Although these programs are the specific issues motivating the proposed study, the scope as proposed by Charlie would also include utilization rates and potential improvements for all systems currently under development (including the HEXAGON and MOL).

A review of this type is definitely needed. The question is who should do it, and what should be studied. Don Hornig, in his comments on the Shultze proposal (January 8, 1968), doesn't believe that a tripartite, high-level, ad hoc review is necessary. He favors an expeditious review to be accomplished by the established organizations and procedures, i.e., the NRO and the COMIREX subcommittee of USIB. On the other hand, Al Flax in his comments (December 29, 1967 and January 8, 1968) is not so sanguine. He is against a "one shot random effort" but points out that the requirements analysis must be addressed at two levels: (1) within the DoD; and (2) through the DIA to USIB. He recommends that we avoid the tripartite study and attempt to strengthen (1) review within DoD; (2) mechanisms for improving COMIREX review; and (3) USIB requirement review of the NRO budget.

We substantially concur with Al Flax and believe that we must start to get our own house in order. This problem has been discussed with Administration, DIA and the Joint Staff. As a result, we propose that a joint study be conducted under our auspices. This study would prepare a document resembling a Draft Presidential Memorandum or Development Concept Paper covering satellite photography during the next five years as it affects DoD. (Admittedly, there is great overlap between DoD and DCI needs but, in fact, DoD positions are developed for presentation to USIB and EXCOM). We propose to get an initial draft by 1 June. This effort would have several objectives:

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- (1) To get the problem analyzed using the approach of DPM's and DCP's.
- (2) To review DoD requirements for target coverage, and to evaluate the extent to which different NRO programs would satisfy these requirements.
- (3) To provide a basis for addressing the questions raised by BoB.
- (4) To provide a basis for your reviewing requirements presented by DIA to USIB.
- (5) To provide a basis for strengthening the DoD input to EXCOM review of the NRO program.

In discussing this with Joe Carroll, he feels that our approach is better than the BoB approach and that more progress is needed on the objectives listed above. He concurs in the need for formulating and applying better methods for evaluating various levels of satellite coverage and he concurs in the establishment of a study group for this purpose. He emphasizes however, that he considers it inappropriate for a study group of the proposed composition to undertake to develop intelligence requirements per se. This is an intelligence and a USIB responsibility which is currently being addressed. He suggests that prior to the establishment of the proposed DoD study group and the proposed response to Mr. Schultze, you discuss this approach with Dick Helms in view of DCI's over-all intelligence responsibilities and the fact that he received an identical letter from the BoB.

Two proposed actions are attached. One is a letter to Charlie Schultze that indicates we have started a study and proposes that we reconsider his questions in June. Bill Fischer of BoB feels that our approach is responsive to Charlie's and Fred Hoffman's concern. The second is a proposed memorandum internal to DoD (with an information copy to NRO) that establishes the review. If you concur with this approach, we recommend that you inform Dick Helms before issuing the letter and memorandum.

The following concur in this approach: NRO, Al Flax; OASD(Admin), Doc Cooke; Joint Staff, Lt. General George Brown.

Alain Enthoven

John S. Foster, Jr.

Enclosures

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26 JAN 1968

Dear Charlie,

This is in reply to your letter of December 21, 1967 to Bob McNamara concerning the GAMBIT-3 launch schedule and the AGENA-E upper stage development. I agree that we should provide \$226.9 million in the FY 1969 budget for the GAMBIT Program but that these funds will not be obligated within the Department of Defense until the requirements issues are resolved.

At the present time, however, I believe that we should not initiate the proposed joint OSD/CIA/BoB study of the GAMBIT-3 launch schedule. First, I believe that we need a review within the Department of Defense of our own requirements for satellite photography and of the relative value of different levels of satellite coverage. I have initiated such a review. Second, I believe it would be highly desirable for me to work with Dick Helms to determine how the requirements process can be improved both in the USIB and by the DoD. If both these efforts are successful, I believe they would have more far reaching and lasting benefits than a one-time special review of the GAMBIT-3 requirements.

The DoD requirements study that I have initiated will present an initial report by June 1968. The director of the study will discuss its objectives and progress with Mr. Fischer. Also, as you pointed out in your letter, the United States Intelligence Board (USIB) is reviewing coverage requirements and the related GAMBIT-3 launch schedule. I believe that the results of both of these reviews should be considered before any new study is initiated. Therefore, I suggest that we review after June 1 the necessity for further study of GAMBIT-3.

Sincerely,

PAUL H. HITZ

Honorable Charles L. Schultze
Director
Bureau of the Budget

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