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~~ISI~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

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OFFICE OF THE DIRECTOR

4 JUN 1971

MEMORANDUM FOR MR. PACKARD

SUBJECT: Actions Approved at the ExCom Meeting (23 April 1971)

The attached memorandum covers some thoughts about the recent ExCom meeting which I would like to review with you.

ML
John L. McLucas

Attachment

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6/7/71

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~~TOP SECRET~~HANDLE VIA
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At the meeting on 23 April, the ExCom reviewed the work which had been called for at the January ExCom meeting concerning an "interim" NRT system, and also reviewed the studies which had been done to see if the EOI system (Z) could provide greater area coverage.

The ExCom reached certain conclusions and made the following decisions for the first time:

1. Develop an interim system, FROG, based on G with an IOC of about 30 months (January 1974). Firm proposals will be in hand by the time of the July ExCom Meeting.
2. Develop the EOI system including the area coverage mode with an IOC in CY 1976. There are two varying interpretations regarding an EOI delay--to January or to June 1976. Accordingly, the DNRO will present two plans at the July ExCom meeting, one based on January 76 IOC and one based on June 76 IOC.

The consequences of these two decisions are many. I will mention some of them. The overall effect is to commit the NRO to major expenditures to achieve near-real-time readout capabilities by simultaneous development of two very promising techniques. Each of the two may be considered a back up for the other, thus insuring that we will have at least one NRT system operating within 5 years. We are, by moving ahead with FROG, which appears to be the earliest achievable capability, responding to the President's desire to have an NRT system at the earliest achievable date. In pursuing FROG, we are building on an existing system, G, whose reliability and length of mission have been steadily increasing.

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Recent flights have involved something like 15,000 camera operations--an extrapolation to something like 60,000 operations appears feasible.

While EOI has no operating predecessor, it does have the benefit of a well-planned component development effort. Through demonstration of each major component of the EOI system, the feasibility of accomplishing a successful EOI mission appears assured. An orderly development program can be carried out with the necessary subsystem demonstrations in the time allotted.

By the time of the July ExCom meeting--about two months from now--reasonably accurate estimates of FROG system costs can be made. Today, about the best we can do is estimate FROG at \$682M and EOI at [] for FY 1971 through 1977.

The incremental cost of adding these two programs to the baseline NRO budget is roughly [] a year for five years.

Added costs will be roughly as follows:

	<u>FY 72</u>	<u>FY 73</u>	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>TOTAL</u>
FROG	120	130	117	102	103	104	676
EOI	[]						

*Based on June 76 launch, and excludes data reaily satellite at about []

The baseline (i.e., all except NRT systems) NRO budget for the ExCom approved programs is as follows:

[]

Including the total of baseline plus NRT systems totals as follows:

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Thus, the NRT systems will consume roughly one-third of the NRO budget for the foreseeable future and will drive our budget up from the level of 70-71 of about [REDACTED]

[REDACTED] This 20% increase will occur during a time when the intelligence community overall is being asked to cut back.

The recent OMB report cites generally valid criticisms of the performance of intelligence groups and does not omit criticisms of the NRO. We are accused of unnecessary duplication of systems and lack of adequate control over those NRO programs executed by CIA.

The course that was selected by ExCom at the last meeting is not universally acclaimed. I have discussed the outcome of the meeting with Messrs. Helms, David, Foster, Froehlke, Seamans, Schlesinger, Anderson (PFIAB), and others. With the exception of Dick Helms, these men almost universally think that a different course would be better and are in surprising agreement as to what we should do instead.* Specifically, they feel that EOI is following too close on the heels of FROG, and thus is inviting trouble with Senator Ellender and others. If FROG is successful and EOI is still [REDACTED] short of completion, these men feel that our friends in Congress might well challenge whether we ought to finish the development. We are open to challenge each year for five years. Our recent good luck in passing Congressional committee scurtiny with essentially no cuts is due at least in part to our having cut the budget ourselves below the FYDP and returning about [REDACTED] in unused funds below the President's budget over the last four years. If we now come in for requests above the FYDP, we will be reversing recent trends and inviting criticism as well as cuts.

The way to avoid Congressional cuts, according to this line of reasoning, is to delay EOI system go-ahead, use the time before system start to redesign the system to achieve something significantly different from what EOI will now do. A new design would offer some combination of the following: spotting and area coverage combined, [REDACTED] [REDACTED] reduced system size and hence reduced cost.

*Admiral Anderson did not take a position either way on this issue.

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The desire would be to replace H and/or G if possible; if not, then to reduce their frequency so that overall photo costs would be less than or no greater than they are now.

I believe that these criticisms are well taken and should not be ignored, and that we should take some action dealing with EOI to reduce its vulnerability to this kind of criticism. We should investigate whether or not EOI can be recast to accomplish more area coverage, [redacted] etc., with cost tradeoffs considered. We should probably use a double-barreled approach, one through the program office at CIA/Aerospace and one through an ad hoc advisory committee reporting to DNRO. This action would not interfere with the on-going system definition on Configurations A and C, which may turn out to be adequate; i.e., may achieve the desired increases in spectral coverage and area coverage through normal system upgrade and by flying in different orbits to achieve broader area coverage. (An EOI system flying at 500 miles altitude can photograph about 75,000 square miles/day of the Sino-Soviet bloc and thus achieve the desired synoptic area coverage of 10-15,000,000 square miles of search every 4-6 months.)

In carrying out the study we would keep in mind the desire that the introduction of EOI should satisfy enough of some other existing requirement to permit the complete phase out of either G or H. Alternatively, a new system should furnish some new benefits, such as super high resolution [redacted] perhaps). The technology for super high resolution remains to be developed. This leaves only the two alternatives, furnishing enough high resolution imagery to permit phase out of G, or furnishing enough area coverage to permit phase out of H. Since H costs are more than twice G costs, phasing out H has the advantage of greater savings, thus offsetting a large part of the high costs of the new vehicle. NRT response is generally more important when conducting search than when doing detailed technical intelligence. An ideal system would be one which searched in near-real-time, but which permitted detailed examination of selected targets. This would be the ultimate configuration "C".

This additional study should be accomplished by October so that it can be assimilated before the November ExCom meeting which will consider the initiation of Z development in December 1971.

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This action can be accomplished within present funding in time for appropriate action at the November ExCom meeting. It may be that the doubts which are expressed about the suitability of our present course of action and schedule will prove unfounded. If so, then we can proceed along the lines of the recent ExCom decisions. If the doubts materialize in the form of Congressional budget cuts or through our own decision to modify the present plan, we will have alternate courses of action open to us.

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