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EXECUTIVE OFFICE OF THE PRESIDENT

BUREAU OF THE BUDGET
WASHINGTON, D.C. 20503

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MAR 22 1969

Honorable Richard Helms
Director of Central Intelligence
Central Intelligence Agency
Washington, D. C.

Dear Dick:

Thank you very much for your letter of March 11. Let me start by emphasizing our area of agreement: it is our shared objective to cut away marginally productive intelligence activities. In this light, let me try to make clear why it is that we cannot now agree with your conclusion that the HEXAGON photography would provide additional intelligence information sufficient to justify its significant cost.

Let me address the question of the relative value of the HEXAGON system in terms of need, cost and risks. I have also attached a paper (Tab A) which discusses the six specific areas cited in your letter as examples of the special contribution which HEXAGON's performance could make to intelligence needs.

Need

1. Initial Rationale and Present Situation

- As you noted, the initial requirement for a system like the HEXAGON was set forth by USIB in 1964. Since 1964, both the CORONA (KH-4B) and the GAMBIT-3 (KH-8), although less expensive systems than the HEXAGON, have greatly improved. (The chart at Tab B shows this.) Consequently, the added marginal value of the HEXAGON, if it is used as a replacement

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for the CORONA and partial substitute for the GAMBIT-3, is now considerably less than it may reasonably have appeared in 1964.

- The GAMBIT-3 improved and improving performance against the surveillance requirement demonstrates there is no clear need for the more expensive HEXAGON system as a partial substitute in the surveillance role. The CORONA, too, as you know, has improved considerably since 1964. In recognition of such improvements in the present mix, the OSD study of November, 1968 concluded that the present and improving sampling capability of the GAMBIT-3/CORONA combination is adequate to meet our intelligence needs in the area of Soviet bloc and Chinese Communist capabilities in air and missile defense, aircraft systems, missile systems, and naval forces (page 5, par. 8, BYE-78416/68).

2. Performance and Capability of CORONA/GAMBIT-3 Mix

- The GAMBIT-3's performance for spotting now meets 99% of the annual target looks required against all 6,600 COMIREX targets (USIB D-46.9/16). This capability will further improve. All significant DIA targets are colocated with the COMIREX targets now covered.

- The CORONA is adequate to meet the requirement of broad area search of the Soviet bloc and China. (In 1968, CORONA provided cloud-free search photography of 94% of mainland China.) When CORONA detects new targets or significant changes in previously identified targets, the GAMBIT-3 can be directed to provide high resolution spotting coverage.

Cost

1. NRO Cost Estimates vs. Probable Program Costs

- The cost savings resulting from a cancellation of the HEXAGON might well, I believe, exceed the FY 69-74 savings of [redacted] based upon the NRO estimates. Savings on the order of [redacted] are a more reasonable estimate. Although the NRO proposal indicates that the operating costs of the HEXAGON/GAMBIT-3 mix about equals that of the CORONA/GAMBIT-3 mix, it will actually be greater since

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- . The HEXAGON mix will probably include 5 rather than 4 GAMBIT-3 and HEXAGON missions due to GAMBIT-3's advantage of [redacted] as against HEXAGON's 30" best resolution and due to concerns for reliability and frequency of coverage.
- . The CORONA mix will probably not require more than 6 CORONA's and 5 GAMBIT-3's as opposed to the 7 CORONA's and 7 GAMBIT-3's now in the NRO estimates.
- . Tab C portrays detailed cost comparisons.
- . As to potential additional costs for mapping satellites, the use of separate mapping satellites at a cost of [redacted] would never be seriously considered since the 3" system of the CORONA would be adequate. If the less complicated CORONA should continue, the bulk of the proposed out-year reductions could probably be retained.

Risks

1. HEXAGON program slippage of 3 to 6 months will probably occur due to technical and management complexities. This will drive costs up and a slip of more than 3 months will require the extension of CORONA production--now scheduled to phase out in the next 3 months.

2. HEXAGON launch rates of 4 per year now programmed may result in vehicle losses which would produce a significant gap in search coverage.

In summary, it does not seem that the arguments for the added value of the HEXAGON adequately reflect the growing capabilities of our present systems; the probable added cost over time of the HEXAGON system; and the related risk of probable technical difficulties with resulting delays which would increase HEXAGON costs and might necessitate further CORONA purchases in any event.

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In light of the factors in this letter and the attached materials, we feel that our original position is justified and my staff is available for more detailed discussions.

Sincerely,

~~Bob Mayo~~

Enclosures

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QUAL PERFORMANCE OPTIONS

System Mix Options Where Both Meet Current Requirements

Mix Option 1 below is currently approved to meet USIB requirements for both search and surveillance in FY 70. Mix Option 2 was that described by USIB (COMIREX) in April 1968, as that future combination that would also meet these requirements.

		Successful	Unit	Annual
	Launches	Missions	Cost	Costs
<u>Mix Option 1</u>				
[redacted] per yr. CORONA	7	6	[redacted]	[redacted]
G-3	6	5	[redacted]	[redacted]

Comments: (a) Nearly all surveillance with best available resolution; (b) Poorer (6'-10') resolution for search capability, but adequate to cover Sino-Soviet bloc; (c) More G-3 missions for technical intelligence; (d) Less risk; and (e) Lower 5-year costs (operating [redacted] investment [redacted]).

<u>Mix Option 2</u>				
\$350 M/per yr. HEXAGON	5	4	[redacted]	[redacted]
G-3	5	4	[redacted]	[redacted]

Comments: (a) Better search resolution; (b) Less surveillance target looks with best available resolution; (c) More risk; and (d) Higher 5-year costs (see comment above: [redacted] more than mix option 1).

Note: The CORONA/G-3 mix would probably produce an even greater savings due to the following factors:

- Surveillance requirements can be met with 4 G-3 missions per year in mix option #1
 - HEXAGON would probably require 5 missions rather than 4 in each of the first 2 years in mix option #2 as the system is maturing
 - Additional HEXAGON development costs
- Additional
5-year
savings
[redacted]

These three factors would produce a total cost differential of [redacted] plus [redacted] over a 5-year period.

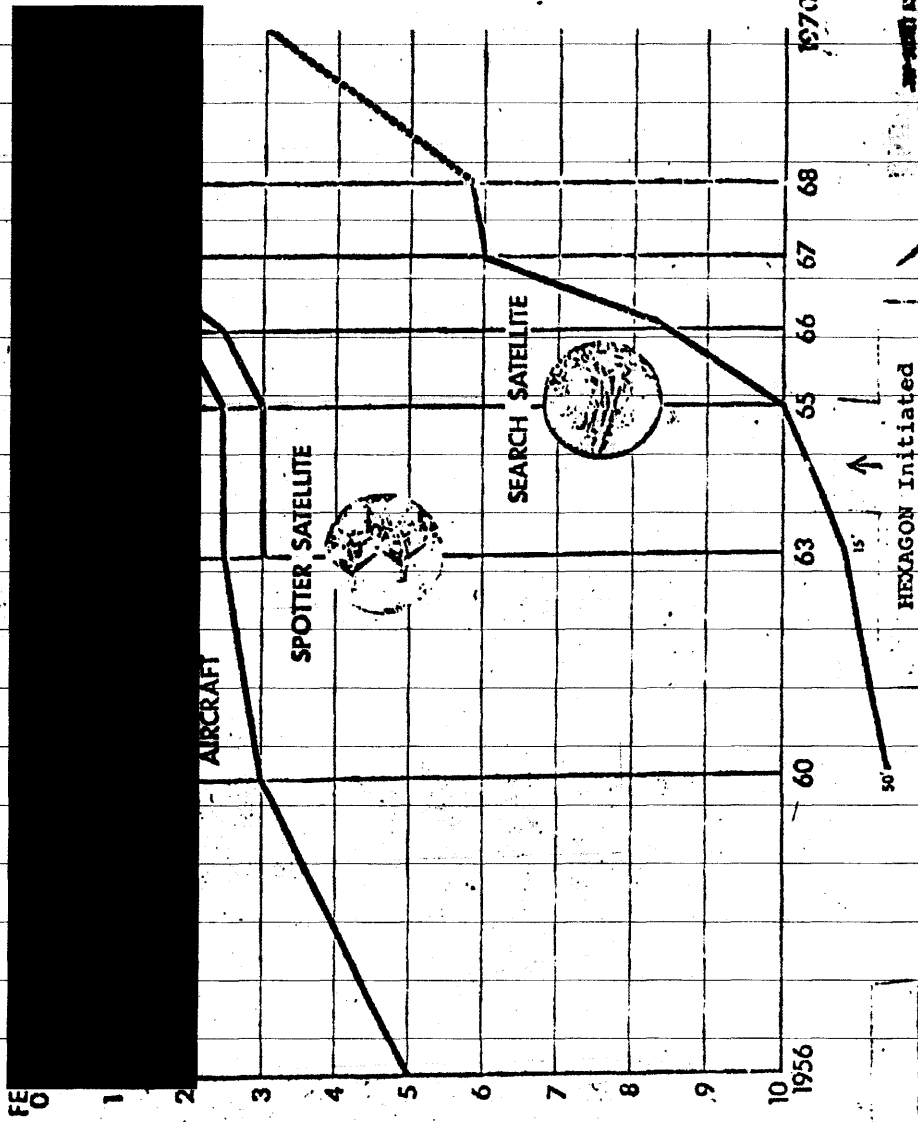
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