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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.



THE NRO STAFF

30 October 1969

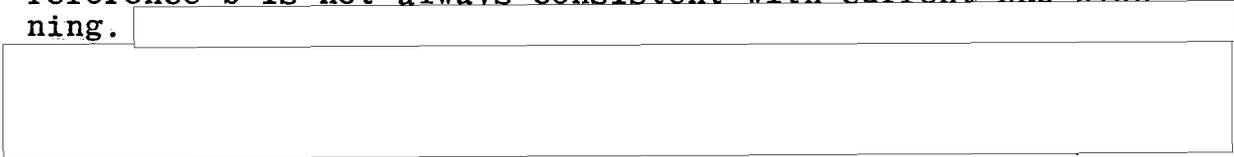
MEMORANDUM FOR MR. R. L. HEWITT, CIA/OSR

SUBJECT: Additive NRP Costs Associated with Monitoring
SALT Option III, IV or V

- REFERENCE:
- a. NRO Memorandum for Dr. C. W. Baier,
BYE-13228-69, 29 Sep 69
 - b. Memorandum for Col Allen from R. L. Hewitt,
BYE-6785-69, 28 Oct 69

Attachment one lists the costs requested by reference b. The ground rules and caveats which were spelled out in reference a are still applicable. The following also apply:

a. The "presently planned coverage" called out in reference b is not always consistent with current NRO planning.



(b)(1)
(b)(3)

b. In reference a all launches were required to be "successful" launches thus additional backup vehicles were costed. In keeping with your desire to hold costs down, we have deleted the provision of backup vehicles in this cost estimate.

This has been a very quick look at requirements which have been expressed in language quite different from that used by COMIREX and SORS, with whom we normally deal. While we think we interpreted these requirements correctly, we would prefer to recalculate the NRP task when the requirements are in a format to which we are more accustomed.

LEW ALLEN, JR.
Colonel, USAF
Director

(b)(1)
(b)(3)

Attachments

- 1. Cost Chart
- 2. Rationale for Photo Systems

88-5
CONTROL NO. BYE-13338-69

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INCREASED NRP COSTS/YEAR TO MONITOR SALT OPTIONS III, IV AND V
(AVERAGE COSTS OVER A 5-YEAR PERIOD)

	Average Presently Planned	Average to Satisfy SALT Monitoring		Increased Costs/Yr to Satisfy	
		Average Case	Worst Case	Average Case	Worst Case
Photo Search (KH-9) Missions/yr	4	4	6(1)	None	\$ 96M
Photo Surveillance (KH-8) Missions/yr	4	4	6(2)	None	48M
P-11/yr	2	3	6	8M	28M
RDT&E for possible new systems	-	-	-		
Satellite Control Facilities	-	-	Some Increase		
Photo Materials/Processing	-	-	" "	None	11M
AF Special Photo Processing Facility	-	-	" "	None	2M
Propellants/Common Agena Support	-	-	" "	None	6M

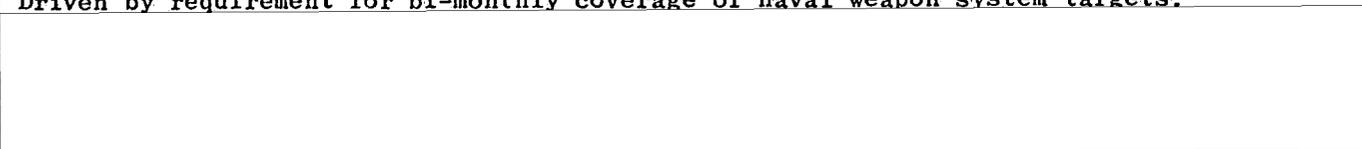
NOTES: (1) Driven by double coverage every 6 months of built-up areas to search for land-mobile ABM's.

(b)(1)

(2) Driven by requirement for bi-monthly coverage of naval weapon system targets.

(b)(3)

- (3)
- (4)
- (5)
- (6)
- (7)



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**ADDITIONAL PHOTOGRAPHIC SATELLITE COVERAGE RATIONALE
NEEDED TO SATISFY SALT MONITORING REQUIREMENTS**

In the worksheets of the verification teams most of the additional required coverage desired under Options III, IV, and V appears to have been caused by a misunderstanding of the presently planned coverage. This additional coverage, in the majority of the cases, is being considered by USIB in a redefinition of the KH-9 requirements. This redefinition has not been completed yet, and, therefore, a coverage analysis has not been made. However, it appears that the search requirements will not be changed significantly from the previous requirements and can be satisfied by four KH-9 missions per year. The additional required surveillance requirements will probably be accomplished by use of the KH-9 to satisfy some of the requirements which can only be satisfied now by KH-8 coverage, some revision to the CCRP frequency requirements, and additional mission-specified guidance. Thus, the search and surveillance requirements for photographic coverage, with two exceptions, should be satisfied by the currently planned annual launch schedule of four KH-8's and four KH-9's.

The two exceptions are coverage requirements for naval weapon systems and deployment of a land-mobile ABM system. KH-8 coverage of naval weapon systems is desired every two months. This will require a minimum of six KH-8's or an increase of two over the currently planned schedule. Scheduling of KH-8 launches every other month, together with four KH-9 launches per year, would result in two photographic satellites on-orbit simultaneously during certain periods. The Satellite Control Facility cannot meet such a requirement without additional capabilities. The cost of such augmentation and the increased procurement and launch costs for satisfying this requirement have been considered.

Surveillance of potential deployment of a land-mobile ABM system requires double coverage of the built-up areas every six months. This could be considered as changing the frequency requirement to coverage every three months, which would require eight KH-9 missions per year. However, if the requirement is interpreted as coverage of the same area twice during each six-month period, more scheduling flexibility can be achieved and six KH-9 missions per year would be adequate.

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In summary, satisfaction of all SALT search and surveillance requirements except naval weapons systems and land-mobile ABM systems could probably be accomplished with the current schedule of four KH-8 and four KH-9 missions per year. Adding only the naval weapons systems requirements would result in an increase of two KH-8 missions per year. Adding only the land-mobile ABM problem would result in an increase of two or four KH-9 missions per year, depending upon interpretation of the coverage requirement statement. Satisfaction of all the SALT monitoring tasks would require an increase of two KH-8 and two or four KH-9 missions per year.

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