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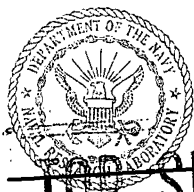
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ENCLOSURES
03
BUDGET ESTIMATES

RECEIPT NO.

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NAVAL RESEARCH LABORATORY

WASHINGTON, D.C. 20390

IN REPLY REFER TO:

7920-145:RDM:mab

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22 April 1971

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MEMORANDUM FOR DIRECTOR PROGRAM C

Subj: Budget Submission for Missions 7106, 7107 [] "Augmentation of Program C for Ocean Surveillance"

Ref: (a) DNRO memo for Dir Program C of 10 Jun 70, BYE-12883-70
(b) Dir Program C memo for DNRO of 17 Aug 70, BYE-66387-70
(c) DNRO memo for Dir Program C of 13 Oct 70, BYE-13117-70
(d) DNRO memo for Dir Program C of 17 Dec 70, BYE-13396-70
(e) DNRO memo for Dir Program C of 11 Feb 71, BYE-12574-71
(f) CITE COGNAC 58-71 191645Z Apr 71

Encl: (1) Summary of FY-71 Financial Program
(2) FY-72 Financial Program and FY-73 Budget Estimate
(3) FY-71, FY-72 and FY-73 Budgetary Summary for the "Augmentation of Program C for Ocean Surveillance"

1. During FY-71 the Naval Research Laboratory (NRL) engaged in several efforts directly associated with the objectives of Program C, POPPY Project. These included (a) Mission 7106, (b) Mission 7107, (c) Concept generation for [] and (d) Augmentation of Program C for Ocean Surveillance (hereafter referred to as "Augmentation"). Funding for these efforts has been established by the specific approvals of the Director of National Reconnaissance Office (DNRO) listed in references (a), (c), and (d). (Concept generation for [])

2. Enclosure (1) provides the FY-71 financial summary for Missions 7106 and 7107, and "Augmentation."

3. Enclosure (2) contains the FY-72 financial program and the FY-73 budget estimate for Missions 7107 []

4. Enclosure (3) provides the FY-71, FY-72, and FY-73 costing details and budgetary estimates which are proposed for the "Augmentation" effort.

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6. NRL is prepared to respond to questions generated by the enclosed information either orally or in written form, depending upon the urgency of the request.

to provide any additional information desired to clarify or expand the information contained herein.

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~~TOP SECRET~~ - HANDLE VIA BYEMAN CONTROL CHANNELS ONLY~~TOP SECRET~~SUMMARY OF FY-71 FINANCIAL PROGRAM

1. The Director National Reconnaissance Office (DNRO) approvals for FY-71 are contained in reference (a) and (d), and are presented in the first and third columns of the table of this enclosure. Mission 7106 was obligated, by line item, in the amounts approved. Mission 7107 however had to be reprogrammed, by line item, as shown in the second column due to differals totaling \$464.3K; the payload area work load had to be maintained at the level initially recommended by NRL, in order to meet the launch schedule. Funds were reprogrammed from the ground station, the facilities, and the computer services areas in order to do this. The reprogramming of these funds places some additional burden in FY-72 which has been factored into the financial program for FY-72, as appropriate.
2. The "Augmentation of Program C for Ocean Surveillance" was proposed and approved by references (b) and (c) respectively. The estimated FY-71 program obligations are given in the fourth column of the table of this enclosure.

Encl (1) to NRL memo
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SUMMARY OF FY-71 FINANCIAL PROGRAM

	7107 Approvals	7107 Estimate*	7106 Approvals & Obligation	"Augmentation" Estimate
I. PAYLOAD (Develop recurring)				
A. Elect. Equip. (Data & TM)	\$1020.3K	\$1045.7K		
B. Stab. Systems	520.5	530.5		
C. Power Systems	281.7	281.7		
D. Control Systems	369.6	541.6		
E. Compat. & Envir. Tests	157.0	157.0		
F. Mech. Structure & Fab.	282.8	282.8		
G. NRL Salaries & Overhead	1879.0	2079.7		
H. Miscellaneous Materials, Travel and Ship	996.8	1040.1		
	\$5507.7K	\$5959.1K		
II. GROUND STATION (Investment)				
A. Elect. (Rec. Record/Time)	\$ 803.0K	\$ 717.6K		\$ 70.9K
B. Antenna Systems	85.9	0.0		
C. NRL Salaries	744.9	913.7	\$ 52.0K	21.5
D. Miscellaneous Materials, Travel and Ship	701.0	668.0	20.2	1.5
E. A-D Systems	---	0.0	81.8	999.0
	\$2334.8K	\$2299.3K	\$ 154.0K	\$1092.9K
III. FACILITIES (Investment)				
A. Test Equip. & Fac.	\$ 573.0K	\$ 393.0K		
IV. SERVICES (Operational)				
A. Operational Field Assistance	\$ 785.0K	\$ 785.0K		
B. Computer Services	324.0	264.0		\$ 80.0K
	\$1109.0K	\$1049.0K		\$ 80.0K
TOTAL	\$9524.5K	\$9700.4K	\$ 154.0K	\$1172.9K
Carryover	\$ 175.9K		---	\$ 47.6K
Funds Available	\$9700.4K	\$9700.4K	\$ 154.0K	\$1220.5K

*Based on 9 months experience and 3 months projection.

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FINANCIAL PROGRAM FOR FY-72 and BUDGET PROPOSAL FOR FY-73

1. Introduction:

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Both Miss [] 7107 [] separately have been/considered in the detailed submission of the table enclosed. This format departs from the historic POPPY Line Item in two areas. The Historic Line Item # I was entitled PAYLOAD, meaning Spacecraft. This has now been changed to "SPACECRAFT", ^{and} so that the ELINT Payload subsystem costs are separately identified as part of the overall Payload (Spacecraft) costs. Line Item # III has been added according to the guidance received in Ref (e) in order that the Site Operation-and-Maintenance (O&M) costs can be identified in two categories; Current systems are combined in Item III-A while the O&M Costs for New and/or Replacement Systems are developed in the table at the bottom of the page for each site.

2. The New or Replacement systems that are proposed in Item IIA, IIB and IIE will be deployed as shown in the table at the bottom of the Cost Table of this Enclosure. Specifically these items are (starting with the first line in the Breakdown of IIIB, and going down the table):

\$600. at the Navy sites is for the Antenna Tracking System.

\$6000. at the Navy sites plus \$3K []

is for the O&M associated with the new Buffered Digital Tape System (BTS).

\$2.8K at [] is to support the new Quality Control

analysis position .

Similarly for FY-73 the items in this table refer to the following:

\$60K [] refers to the Site O&M for the entire electronic

complex that is being installed for the first time at this site beginning in May 1972. *at all collection sites* []

\$4K is for the System that will take the PCM Telemetry information from the Spacecraft [] and convert it into usable form for being included along with the [] in the recordings made at each site.

\$30K at [] is the overall POPPY System O&M at this site for the period of one half year after January 1973.

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FY-72 FINANCIAL PROGRAM & FY-73 BUDGET ESTIMATE

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FY-72 FY-73

7107

I. SPACECRAFT (Development, Recurring)	
A. ELINT Payload	\$ 300.0K
B. Command/Control	22.0
C. Telemetry	18.0
D. R.F. Systems	25.0
E. Power Supply	16.0
F. Attitude Control	50.0
G. Station Keeping	24.0
H. NRL Salaries & Overhead	1105.0
I. Misc. Mat., & Travel	495.0
	\$2055.0K
II. GROUND STATION (Development/Invest.)	
A. Electronic System	\$ 618.0K
B. Antenna Systems	55.0
C. NRL Salaries & Overhead	867.0
D. Misc. Mat., & Travel	750.0
E. A-to-D Systems	75.0
	\$2365.0K
III. GROUND STATION (Operating)	
A. Current System, O&M	\$ 240.0K
B. New & Replacement	37. (40.0)
	277 \$ (280.0K)
IV. FACILITIES (Investment)	
	430K \$ (400.0K)
V. SERVICES (Operational)	
A. Contractor Services	\$ 825.0K
B. Computer Services	275.0
	\$1100.0K
	#6227. \$6200.0K

*Breakdown of III.B. (See text for explanation of items)

								State College	FY Total
FY-72	1	.6	.6	.6	.6				2.4
	2	6.0	6.0	6.0	6.0	3.0	3.0	3.0	30.0
	3			2.8	2.8	2.0			7.6
FY-73	4				60.0				60.0
	5	4.0	4.0	4.0	4.0	4.0	4.0	20	28.0
						30.0			30.0

37K

20K

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~~TOP SECRET~~ - HANDLE VIA BYEMAN CONTROL CHANNELS ONLY~~TOP SECRET~~AUGMENTATION OF PROGRAM C FOR OCEAN SURVEILLANCE

1. The program for "Augmentation of Program C for Ocean Surveillance" was initially proposed by Director of Program C in June 1970; it was subsequently reviewed by NSA and then resubmitted by Director of Program C as reference (b). Initial funding approvals were authorized by reference (c) in the amount of \$1220.5K with the [] portion of the proposal being deferred to FY-72.
2. Information provided in the table of this enclosure presents both the current year summary and the financial program for FY-72 and FY-73 for this "Augmentation" effort. It includes an interrogation complex for [] as detailed in Director Program C memo to DNRO on 5 Nov 70, BYE-66442-70. It includes the A-to-D system and the PDE development detailed in Director Program C memo to DNRO of 5 Nov 70, BYE-66449-70. In addition to these items there is included a more realistic estimate of the NRL salary and overhead and the Misc. Mats., Travel and Shipment associated with this effort. In accordance with the guidance of references (e) and (f) the Operating and Maintenance costs for the "New or Replacement" systems are itemized for each site by fiscal year.
3. Proposed for FY-73 is a program for procuring and deploying two SEL Model 86 "second-generation" computer systems for the Pacific arena; one [] In addition to these processing systems there is also proposed a development program for adding the antenna [] capability to the PDE hardware system and the software burden for accommodating these developments.

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AUGMENTATION OF PROGRAM C FOR OCEAN SURVEILLANCE

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AUGMENTATION

FY-71 FY-72 FY-73

I. SPACECRAFT (Development, Recurring)

- A. ELINT Payload
- B. Command/Control
- C. Telemetry
- D. R.F. Systems
- E. Power Supply
- F. Attitude Control
- G. Station Keeping
- H. NRL Salaries & Overhead
- I. Misc. Mat., & Travel

II. GROUND STATION (Development/Invest.)

- A. Electronic System
- B. Antenna Systems
- C. NRL Salaries & Overhead
- D. Misc. Mat., & Travel
- E. A-to-D Systems

	573.0	950
\$ 70.9K	\$ 622.0K 49	\$ 800.0K
21.5	60.0	120.0
1.5	41.1	175.0
999.0	141.0	1485.0
\$1092.9K	875.1 \$ 864.1K	2730. \$2580.0K

III. GROUND STATION (Operating)

- A. Current System, O&M
- B. New & Replacement

	\$ 58.0K*	\$ 57.0K 57 90.0* 150
	\$ 58.0K	207. \$ 147.0K

IV. FACILITIES (Investment)

	\$ 49.0K <i>from DA above</i>	
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V. SERVICES (Operational)

- A. Contractor Services
- B. Computer Services

\$ 80.0K	\$ 90.0K	\$ 100.0K
\$ 80.0K	\$ 90.0K	\$ 100.0K
	1002.1 \$ 1061.1K	3037.0 \$2827.0K

FY Totals

Approvals

Carryover

Proposed Budget

\$ 47.6K	-\$ 47.6K	3037.0 \$2827.0K
	\$1013.5K	
	954.5K	

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*Breakdown

							State College	FY Total
FY-71								
FY-72	30.0				60.0 10.0		18.0	58.0
FY-73	10.0	30.0	30.0					90.0

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