U. S. NAVAL RESEARCH LABORATORY
WASHINGTON, D.C. 20390

IN REPLY REFER TO

TOP SECRET

MEMORANDUM

16 April 1967

FROM Code 5600 HO Lorenzen
US. Naval Reaearch Lab

TO

Subj: Reconcilation of FY-68 Funds requirements for POPPY.

Ref (a) NRL ltr to NRO of 6 March 1967 BYE-26906-67
NRO
(b) Memo to DNI of 21 March 1967 BYE-52212-67

1. The letter of 6 March from the Naval Research Lab (Ref (a)) presented the FY-68 funds requirements for a concurrent effort of Mission 7106 and 7107 being expedited simultaneously. This was ~~understood to be both~~ consistent with the ABM/AES emphasis and also advantageous both in cost and time required to produce the advanced effort proposed for Mission 7107. Reference (b) clearly indicates the necessity of weighing the alternative methods of improving the collection capability for ABM/AES SIGINT. Reference (b) also authorizes NRL to proceed on the Mission 7106 effort.

2. Due to the slip in the Mission 7105 Launch schedule the procurements for both 7106 and 7107 are well underway at NRL at this time. The assignment of the QRC#67-25 Priority/designation by CNO has greatly expedited the procurement effort in support of these Missions.

3. Enclosures #4 and #5 of Reference (a) :

(1) Note that the costs for Mission 7106 remain the same in both Enclosures 4 & 5
(2) FY-67 Services costs are assigned to 7105 only...they could have been distributed by year and event.

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Notes on March submission relative to Mission 7107 for Program

1. In any comparison of estimates of costs one must be careful to appraise both the dollars and the requirements which the effort is designed to support. In the case of the March submission the 7106 effort had undergone a sever up-dating during the Month of December, with the advent of the ABM/AES SIGINT requirement as the Major goal. Toward this requirement the Naval Research Laboratory prepared a detailed design Plan for Mission 7106 (BYE-26904-67) of Feb 7,'67. for "Dir Prog C" which was approved and then became the mandate for Mission 7106. In this technical plan, the number of satellites had increased from two aboard a BURNER II,(prior to 15 April) costing about $5,535K to a group of four Satellites launched from a Thor/Agena costing about $9,389.0 over three Fiscal Years ($6000 estimated for FY-68)

2. The effort proposed for Mission 7106 now is a great deal more difficult and costly than than proposed for the same mission one year ago, mainly because the requirements are now firmly known ~~and contemporaby~~ instead of ~~only~~ early vague estimates. The 7106 effort of one year ago was costly too, ~~for what was proposed~~, because it used a pick-a-pack mounting of payload on top of another, necessitating an extremely solid lower/structure payload

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APPENDIX A

Additional Details pr[illegible]ng to the FY-68 Funding estimates for:

I. BYE-26903-66 to Dir Program C called for two/7106 payloads (300 lbs) on a BURNER II to fly 12 months after 7105, containing 22 discrete collection bands (7 of them are duplicated so 15 (7+7)+8=22 designs are needed).

This effort required the development and flight certification of at least one New payload structure capable of supporting another payload above it, pickaback fashion. For this reason and the increasdd sophisticati on of the collection experiments and the parametric measurements the costs estimated for this FY-68 (MISSION 7106) effort were $5435K Parametric measurement of either Frequency, CW detection or Signal Amplitude were proposed to be provided in each of the collection bands excppt the 14,800 to 15,i00 mc band. Fine grain measurement of Frequency was proposed from 1800 to 2500 Mc and from 7850 tol0,000 Mc. Pulse Width measurement from 153 Mc to 2500 and from 5250 to 5850 Mc. with Signal Amplitude measurement proposed from 153 Mc to 9600 Mc in the other payload. CW detection would be proposed for each collection band except 2500 to 4100 Mc and 14.8 to 15.1 Gc.

A large part of the Satellite production capability of the Naval Research Laboratory under this proposal would be diverted to the Non-intelligence efforts so that only $1074.1K plus $316K or $1390.1K/Yr is estimated for salaries and overhead.

APPENDIX B additional fac [redacted] erning NRL TO [redacted] of 1 April 66

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1. Requested $2,000K ~~xxxxx~~ funds withheld on FY-67 POPPY allocations.
2. FY-68 not included.
3. Mission 7106 Long-Lead-Time items in the ammount of $995K were indicated, particularily for the Payload Developmental costs.

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