



DEPARTMENT OF THE NAVY
NAVAL INTELLIGENCE COMMAND

~~TOP SECRET~~

TON, D. C. 20350

IN REPLY REFER TO
NAVINTCOM-2/hs
BYE-64699/68
25 November 1968

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MEMORANDUM FOR COMMANDER, NAVAL INTELLIGENCE COMMAND

Subj: Ocean Surveillance with the POPPY ELINT Satellite System

1. Current POPPY collection sites primarily are arranged to impinge on the SINO-SOVIET land mass, but it has been found possible to perform very critical ship surveillance on the Inland Sea and Northern Sea Route areas. Extension of this surveillance into areas far from the Soviet land mass would require deployment of additional collection systems that could make this surveillance possible. We are planning to install a POPPY collection site at [redacted] when a "go ahead" is received on construction there.

[redacted]
The potential for extending this capability to [redacted] will allow the POPPY system to monitor all emitting Soviet ships. Constraints at this moment are primarily the geographical orientation of the POPPY data collection sites which precludes coverage of some desired open ocean areas.

3. Results obtained at [redacted] to date during engineering testing on a "not to interfere" basis:

a. Identified and located:
[redacted]

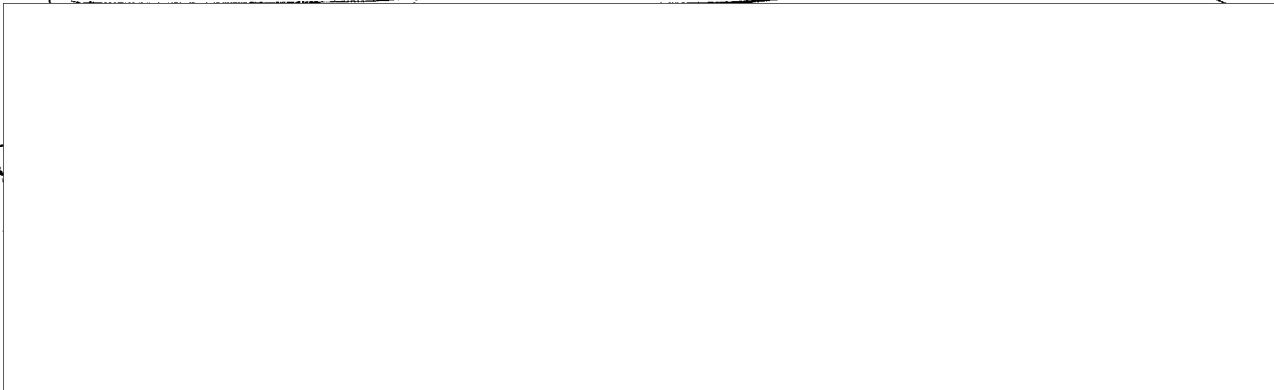
b. Positive correlations have been repeatedly made through other collection sources and POPPY PRF [redacted]

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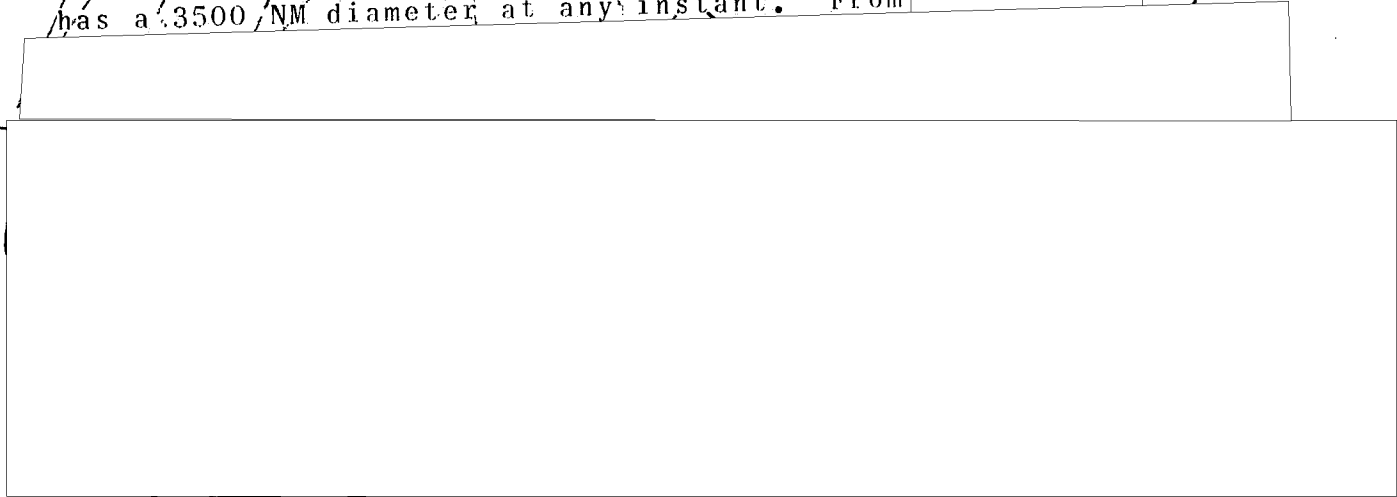


e. [redacted] locations were made and forwarded between 15 August and 15 November. The computer was only available for processing and location finding for 3-5 hours/day during this period.

f. National tasking of the two [redacted] payloads has not been aimed to further the Navy sea surveillance development project, but has been entirely oriented toward the ABM threat.

g. The primary [redacted] mission of recording/forwarding analog and digital tapes to NSA has not suffered from the sea surveillance effort. Change in tasking priorities to further develop the sea surveillance effort must be balanced with the needs for the effort against ABM related and other high priority emitters.

h. The circular acquisition area for a POPPY satellite has a 3500 NM diameter at any instant. From [redacted]



4. Current System Costs:

a. Payload = \$13M per single launch of 4 payloads which cover spectrum from 155 Mcs to 10,000 Mcs.

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b. Ground based POPPY data collection sites cost about \$1M for the Receiving, Recording, Digitizing, Analyzing, Timing, Display and Quality Control Systems:

(1) Field Digital System

Analog to Digital System	\$120K	
SEL-810A Computer System	280K	
	<u>\$400K</u>	\$400K

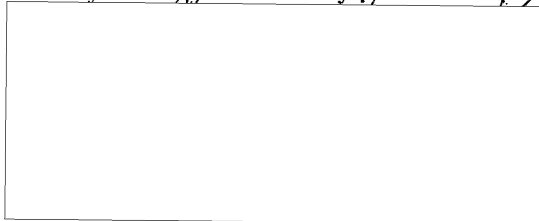
(2) Analog Data System for Receiving and Interrogation

Antennas (3)	\$ 75K	
Receivers (16)	125K	
Displays (4)	40K	
PCM Decommutator (1)	35K	
Interrogation Complex (1)	50K	
Recorders (4)	100K	
Timing System	75K	
	<u>\$500K</u>	\$500K

(3) Quality Control Complex

\$100K	
<u>TOTAL</u>	<u>\$1,000K</u>

Very respectfully,



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