E POPPY
PROGRAM TO [redacted]MONSTRATE A SHIP SURVEILLANCE ([redacted]ABILITY
19 JUNE 1968

~~Top Secret~~ [redacted] 50X1

1. In the period since the April meeting with CNO, the POPPY Program has initiated certain efforts at [redacted] which are, in addition to the normal POPPY function of this station, designed to provide an opportunity to evaluate the system for location of emissions from ship targets at sea. Since mid May, one orbit per day giving ocean coverage (not otherwise in use) has been specially tasked for the collection of the shipborne [redacted] radar family [redacted] (HEAD NET) which is widely deployed throughout the Soviet Fleet. The results of these trial tasks in locating ships during the past two months are as follows:

A. On a normal tasked orbit on 14 April, a [redacted] emittor was located by the analysis complex in [redacted] in the Aegean Sea. This location was compared very favorably with a known ship location in this area at approximately this time.

B. On another normally tasked orbit on 20 May, a [redacted] HEAD NET) was intercepted and ultimately located in the Eastern Mediterranean Sea also with good agreement with a known ship location in this area.

C. On four of the special tasked ship surveillance orbits, the [redacted] (HEAD NET) was intercepted but only one, the orbit of 11 June, was of a quality and duration adequate to allow the location analysis to resolve its location to a point in the Barents Sea, which corresponded with a known ship location at that time.

D. During the early June effort in search of the submarine Scorpion, there was a noticable build-up and eventual decline in the signal density of the US Navy radar emissions in certain parts of the spectrum. The data taken during this effort is currently under study.

2. Restraints which are inhibiting this effort:

A. One technical limitation which is presently causing some problems in the present effort is the limited transmitter power which is available due to partial failure of battery system aboard payload 7105 Alpha. This particular satellite must operate during the sunlight only and the solar cell battery

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~~Top Secret~~ [redacted]

r is supplying the total power for the satellite's use. As a result, the

signal strength is very weak about 75% of the time inadequate to be
~~Top Secret~~ [redacted]
processed through the analog to digital data-system.

B. The second most severe restraint is the present [redacted] existent between the Charlie and Delta payloads of Mission 7105. On 31 May, [redacted] requires larger computer capacity and more complex routines than are presently available with the small computer facility now in use at [redacted] When the [redacted] our computer will again be capable of processing a bigger percentage of the targets.

3. While the problems encountered have precluded the best demonstration of performance against Naval targets, we feel the lessons learned has built a stronger base for success as each problem has been analysed and corrective action taken to overcome the deficiencies. We are increasingly optimistic of solving this problem for the Navy.

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SUMMARY OF THE INITIAL EFFORT IN THE POPPY PROGRAM TO DEMONSTRATE A SHIP SURVEILLANCE CAPABILITY....19 June 1968.

1. In the period since the April meeting with CNO the POPPY Program has initiated certain efforts at [redacted] which are, 50X1 in addition to the normal POPPY function of this station, designed to provide an opportunity to evaluate the system for locating ~~the~~ emissions from ship targets at sea. Since mid May, one orbit giving ocean coverage per day (not otherwise in use) [redacted] has been specially tasked for the collection of the shipborne S-Band radar family [redacted] HEAD NET) which is widely 50X1 deployed throughout the Soviet Fleet. The results of these ~~special~~ tasks (trial) ~~and the normal tasks~~ in locating ships during the past two months are as follows: 50X1

[redacted]

D. During the early June effort in search of the submarine Scorpion, there was ~~an apparent~~ a noticable build-up and eventual decline in the signal density of the US Navy radar emissions in certain parts of the spectrum. The data taken during this effort is currently under study. [redacted]

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~~TOP SECRET~~ [redacted]

2. Restraints which are inhibiting this effort:

One technical limitation which presently causing some problems in the present effort

A. ~~The most severe restraint at this time~~ is the limited transmittor power which is available due to partial failure of battery system aboard payload 7105 Alpha. ~~At this time~~ this particular satellite ~~payload~~ must operate during the sunlight only and the solar cell battery charger is supplying the total power for the satellite use. As a result the signal strength is very weak and about 75% of the time inadequate to be processed through the analog to digital data-system.

B. The second most severe restraint is the present [redacted] existant between the [redacted] of Mission 7105. On 31May [redacted] With [redacted] the problem of measuring the difference in [redacted] requires larger computer capacity and more complex routines than are presently available [redacted] ~~is nearly insurmountable~~ with the small computer facility now in use at [redacted] When the [redacted] our computer will again be capable of processing a bigger percentage of the targets,

50X1

[redacted]

3. While the problems encountered have precluded the best demonstration of performance against Naval targets, we feel the lessons learned has built a stronger base for success as each problem has been analysed and corrective action taken to overcome the deficiencies. We are increasingly optimistic of solving this problem for the Navy.

~~TOP SECRET~~ [redacted]

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