



U S. NAVAL RESEARCH LABORATORY

WASHINGTON 25, D C

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From: Director, U. S. Naval Research Laboratory, Washington 25 D.C.
To: Chief of Naval Operations (Op-92)

Subj: NRL Payloads for Vehicle 2354 on Mission 7103.

1. The Director of Program C has verbally requested NRL to furnish a schedule for Mission 7103, payloads.

2. It is understood that the launch will accommodate only three DYNQ-type satellites and on this basis, the Naval Research Laboratory proposes to furnish the following Payloads for launch on Vehicle 2354:

Payload 7103A - ELINT Satellite covering four frequency bands;

- (1) 105 to 125 mc
- (2) 550 to 660 mc
- (3) 1600 to 2000 mc
- (4) 3800 to 4700 mc

Payload 7103B - ELINT Satellite covering four frequency bands;

- (1) 155 to 175 mc
- (2) 320 to 390 mc
- (3) 665 to 855 mc
- (4) 1080 to 1350 mc

Payload 7103C - ELINT Satellite covering four frequency bands;

- (1) 170 to 205 mc
- (2) 590 to 720 mc
- (3) 820 to 1080 mc
- (4) 4700 to 5100 mc

3. At this time it appears that these three payloads will be 20 inches in diameter and each will weigh approximately 70 pounds. No Cover experiment is to be provided and the usual housekeeping Telemetry signal will be used for tracking purposes.

4. A circular orbit of 500 nautical miles plus or minus fifty miles altitude at 70° prograde inclination is required..

5. Separation of two of the payloads relative to the third payload will be provided to give for this mission. Separation rates of approximately 10 n. mi. per day will be provided if the orbit is reasonably circular.

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6. It is proposed that two new R & D experiments be provided for evaluation. One will provide [redacted] information in discrete steps on signals in the TALL KING (170 to 205 mc) frequency band.. This will test the R & D experiment as well provide identification on the two types of TALL KING systems known to be in use. The second R & D experiment would provide a capability for identification of [redacted] radar, [redacted]

By tailoring this experiment to work against the only known operational system of this type [redacted] a practical demonstration is possible. The additional parameters thus identified would be coded on a sub-carrier oscillator in the regular telemetry system employed in the satellite for furnishing the housekeeping data.

7. The work outlined above can be accomplished for a launch on Vehicle 2354 on or after 25 September 1963.

[redacted]

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