

SECRET
SECURITY INFORMATION

CODE	DATE	INITIALS	PURPOSE	REMARKS
5170	2/18	M.V.		
5100	2/20	lee		
5400	2/24/63	MS		
5430				Send reply through Code 5400.
5170				

INSTRUCTIONS

Prepare 4 copies of this route sheet and forward ALL copies together with necessary correspondence and other documents.

***PURPOSES**

- 1. FOR INFORMATION
- 2. APPROVED
- 3. PREPARE REPLY
- 4. FOR SIGNATURE
- 5. FOR NECESSARY ACTION
- 6. FOR MEMO. COMMENT
- 7. FOR GUIDANCE
- 8. FOR COMPLIANCE
- 9. DISTRIBUTE ENCLOSURE
- 10. RETAIN ENCLOSURES
- 11. RETAIN COPY
- 12. FILE

A1073-4/52-90M, NAVY FPPO 6ND JAX

FROM Code 5170		DIVISIONS DO NOT FILL IN	
DATE OF MATERIAL	BRANCH IDENT. SYMBOL	DATE MAILED	
2/15/63	5170-24: MJV: js		
ORIG. IDENT. SYMBOL (MAIL ROOM FILL IN)		FILE NO.	
SUBJECT			
Payload Plans for 7103 (U)			
SECRET			R/S NO. (MAIL RM. FILL IN)

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

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TO : Code 5430

~~TOP SECRET~~

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5170-24: MJV: js

DATE: 15 February 1963

FROM : Code 5170

SUBJECT: Payload Plans for 7103 (U)

Ref: (a) Code 5430 memo dated 8 Feb 63

1. Three satellites are planned. All are 20 inch diameter 70 pound units with four bands. No cover experiments are planned since they were not listed as a requirement. A single command carrier for all three payloads at a frequency of 122.4 Mc is planned.
2. It is difficult to be sure that the experimenters requirements can be met when the number of filters, detectors and video amplifiers are not given. It is requested that this information be supplied. It is also not possible to determine clearances of payloads and nose fairing. Please supply antenna lengths.
3. Budget estimates prepared by this Code on 19 July show only two 20 inch payloads. The third payload is planned as requested in reference (a) assuming that additional funds will be available when required.
4. A schedule has been prepared that will permit completion of three twenty inch diameter payloads in time for a September 25, 1963 launch.

Martin J. Votaw

Martin J. Votaw
Head, Satellite Techniques Branch

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BYEMANTELIN...
CONTROL SYSTEMS JOINTLY

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8 February 1963

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HANDLE VIA
TALENT-KEYHOLE Code: 5170
CONTROL SYSTEMS Code: 5430

~~TOP SECRET~~
Subject: Payload Requirements - 7103

For the launching formerly identified as the July-August 1963 (7103), the following are the requirements:

1. The NRO advises there will be three NRL furnished payloads only. These will be Dyno units as follows:

- Satellite (A) ^{2 F+M} #1 Band 105 to 125 Mc - two monopole antennas (North and South Poles)
- 6 F+M #2 Band 550 to 660 Mc - four equatorial monopoles plus internal connection also to the North South Poles.
- 6 F+M #3 Band 1600 to 2000 Mc - six monopoles at the 36° latitude.
- 6 F-M #4 Band 3800 to 4700 Mc - a second set of six monopoles at the 36° latitude..
- Satellite (B) #1 Band 155 to 175 Mc - two monopole antennas (North and South Poles)
- 6 F+M #2 Band 320 to 390 Mc - four equatorial monopoles plus internal connection also to the North South Poles.
- 6 F 6 M #3 Band 665 to 855 Mc - six monopoles at the 36° latitude.
- 6 F 6 M #4 Band 1080 to 1350 Mc - a second set of six monopoles at the 36° latitude.
- Satellite (C) #1 Band 170 to 205 Mc - two monopole antennas (North and South Poles)
- 6 F 6 M #2 Band 590 to 720 Mc - four equatorial monopoles plus internal connection also to the North South Poles.
- 6 F 6 M #3 Band 820 to 1080 Mc - six monopoles at the 36° latitude.
- 6 F-M #4 Band 4700 to 5100 Mc - a second set of six monopoles at the 36° latitude.

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2. Unclassified cover experiments are permissible if they are compatible with the primary mission of the Satellite.
3. There undoubtedly will be some R and D type experiment incorporated in 7103-B-4 to provide additional Elint parameters. These probably will utilize one SCO channel of the telemetering signal.
4. The usual orbital parameters will be required 70° inclination, prograde with a 500 Nautical Mile Altitude \pm 50 or less.
5. It is requested that the appropriate scheduling be planned so we can notify the project director of the schedule NRL will meet by approximately 15 February.

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TALENT-KEYHOLE
CONTROL SYSTEMS

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8 February 1963

To: Code 5170
From: Code 5430

Subj: Payload Requirements - 7103

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For the launching formerly identified as the July-August 1963 (7103), the following are the requirements:

1. The NRO advises there will be three NRL furnished payloads only. These will be Dyno units as follows:

Satellite (A)	#1 Band	105 to 125 Mc	- two monopole antennas (North and South Poles)
	#2 Band	550 to 660 Mc	- four equatorial monopoles plus internal connection also to the North South Poles.
	#3 Band	1600 to 2000	
		Mc	- six monopoles at the 36° latitude.
Satellite (B)	#4 Band	3800 to 4700	
		Mc	- a second set of six monopoles at the 36° latitude..
	#1 Band	155 to 175 Mc	- two monopole antennas (North and South Poles)
	#2 Band	320 to 390 Mc	- four equatorial monopoles plus internal connection also to the North South Poles.
Satellite (C)	#3 Band	665 to 855 Mc	- six monopoles at the 36° latitude.
	#4 Band	1060 to 1350	
		Mc	- a second set of six monopoles at the 36° latitude.
	#1 Band	170 to 205 Mc	- two monopole antennas (North and South Poles)
Satellite (C)	#2 Band	590 to 720 Mc	- four equatorial monopoles plus internal connection also to the North South Poles.
	#3 Band	820 to 1080 Mc	- six monopoles at the 36° latitude.
	#4 Band	4700 to 5100	
		Mc	- a second set of six monopoles at the 36° latitude.

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TALENT-KEYHOLE
CONTROL SYSTEMS

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2. Unclassified cover experiments are permissible if they are compatible with the primary mission of the Satellite.

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3. There undoubtedly will be some R and D type experiment incorporated in 7103-E-4 to provide additional Elint parameters. These probably will utilize one SCO channel of the telemetering signal.

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2

HANDLE VIA
TALENT-KEYHOLE
CONTROL SYSTEMS

2-5-63

110 (24")	<u>260-320</u> 2 Filters-4.75" 2 Detectors-* N&S Ant.-10" W-1	<u>450-550</u> 12 Filters-3" 6 Detectors-* 4 Equator,-6" (Also N&S) W-2	<u>830-1080</u> 6 Filters-3.5" 6 Detectors-* 6 Antennas-4" N-2	<u>2500-3120</u> 6 Filt.-Det.- (3xlx.625") N-1
130 (24")	<u>230-290</u> 2 Filters-5" 2 Detectors-* N&S Ant.-12" W-1	<u>480-580</u> 6 Filters-4.75" 6 Detectors-* 4 Equator-6" Also N&S W-2	<u>665-855</u> 6 Filters-4" 6 Detectors-* 6 Antennas-4" N-2	<u>3000-3650</u> 6 Filt.-Det.- (3xlx.625") 6 Antennas-Cone N-1
112 (20")	<u>90-105</u> 2 Filters-7" 2 Detectors-* N&S Ant.-35" W-2	<u>170-200</u> 6 Filters-5.75" 6 Detectors-* 4 Equator-16" (Also N&S) N-1	<u>1300-1750</u> 6 Filters-3.5" 6 Detectors-** 6 Antennas-2.5" N-2	<u>3250-4100</u> 6 Filt.-Det.- (3xlx.625") 6 Antennas-Cone 6 Amplifiers W-1

* All Detectors are 3.625" long, .625" diameter tubular units, unless noted.

** Unusual size-3.25" long, 1.5" diameter.

All amplifiers are 3.5" long, 2.375" high, 1" wide. All have 6

units. All bands have one amplifier except as noted.

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2-5-63

110 (24")

260-320

2 Filters-4.75"
2 Detectors-*
N&S Ant.-10"
W-1

450-550

12 Filters-3"
6 Detectors-*
4 Equator,-6"
(Also N&S)
W-2

830-1080

6 Filters-3.5"
6 Detectors-*
6 Antennas-4"
N-2

2500-3120

6 Filt.-Det.-
(3xlx.625")
N-1

130 (24")

230-290

2 Filters-5"
2 Detectors-*
N&S Ant.-12"
W-1

480-580

6 Filters-4.75"
6 Detectors-*
4 Equator-6"
Also N&S
W-2

665-855

6 Filters-4"
6 Detectors-*
6 Antennas-4"
N-2

3000-3650

6 Filt.-Det.-
(3xlx.625")
6 Antennas-Cone
N-1

112 (20")

90-105

2 Filters-7"
2 Detectors-*
N&S Ant.-35"
W-2

170-205

6 Filters-5.75"
6 Detectors-*
4 Equator-16"
(Also N&S)
N-1

1300-1750

6 Filters-3.5"
6 Detectors-*
6 Antennas-2.5"
N-2

3250-4100

6 Filt.-Det.-
(3xlx.625")
6 Antennas-Cone
6 Amplifiers
W-1

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All amplifiers are 3.5" long, 2.375" high, 1" wide. All have 6 inputs. All bands have one amplifier except as noted.

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