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1. Background:

With the failur[redacted] the command systems of two of the spacecraft of Mission 7106 on ORB[redacted] the danger of other failure in the two spacecraft which have thus far escaped have combined toward establishing a degree of Urgency with regard to the schedule for Mission 7107. It is thus the position of NRL that Mission 7107 be accelerated in every way that is practical and encorporate as much of the concept of the basic Mission 7107 as is possible....

The NRO has granted tacit/approval to the concept for Mission 7107 by msg of Ref (a) promulgated by Msg Ref (b), with several slight modifications and adjustments. NRL would like to have the NRO reconsider a concept which would provide the majority of the salient design features and still provide a launch date only 15 months after NRL approval.

2. Accelerated Concept for the design of Mission 7107 Spacecraft:

A- Spacecraft:
27" multiface like Mission 7105 and 7106.
Three-axis Gravity Gradient Stabilization systems (like 7106B)
Solar Re-charging Battery power system like Mission 7106= 16 W max.
MicroThrusters Fore and Aft.

B- Electronic Systems:
ADCOL and Magnetic Aspect Monitor
Memory system like Mission 7106.
Housekeeping Transmitter system
PCM improved beyond Mission 7106
Data Link Transmitter Systems = 3 in each Bird.
[redacted]
Command System Improved over 7106 with 160 basic command vs 80.
Data Link Timer system similar to 7106
Transmitter Boom mounted Antennas improved 7106 type.

3. ELINT Collection Specifications

(See Attached Sheet)

BYEMAN ~~TALENT KEYHOLE COMINT~~ HANDLE VIA CONTROL SYSTEMS JOINTLY

~~TOP SECR~~[redacted]

~~TALENT KEYHOLE COMINT~~ CONTROL SYSTEMS JOINTLY

ACCELERATED 7107 (QRC)	APPROVED 7107 (STD)
1. Time= 16-18 Months	26 to 30 Months.
2. #Spacecraft = 4	4
3. Approx Wt. = 275 lbs.	350 lbs
4. Stabilization= 3 axis	3 Axis
4. Command system= Improved 7106	Stored Commands (14 hours worth).

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HANDLE VIA TALENT KEYHOLE COMINT CONTROL SYSTEMS JOINTLY

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COMPARISON OF CONCEPTS FOR MISSION 7107

ACCELERATED		APPROVED
1. 16-18 months	SCHEDULE	26-30 months
2.	SPACECRAFT:	
Four (4)	Number	Four (4)
250 lbs.	Weight	365 lbs.
Multiface	Shape	Cylindrical
3. As 7106B	GRAVITY GRADIENT STABILIZATION	As 7106B
4. Improved 7106	COMMAND SYSTEM	Stored Command

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~~TALENT-KEYHOLE-COMINT~~
CONTROL SYSTEMS JOINTLY

TRADE OFFS BETWEEN ACELLERATED AND APPROVED CONCEPTS FOR MISSION7107

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ACCELERATED CONCEPT	ASPECT UNDER COMPARISON	APPROVED CONCEPT
	State of POPPY ART	
Improved 7106 type.....	1. Command System.....	Stored command sys.
27" Multiface	2. Structure.....	New Cylindrical 24" X 40"
7106B type	3. GGS	Improved 7106B

[redacted]

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BYEMAN ~~HANDLE VIA TALENT-KEYHOLE-COMINT~~ CONTROL SYSTEMS JOINTLY

TOPIC OUTLINE FOR POINT CHART FOR BRIEFING 30 March 1970

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1. FAILURE OF ~~TUBRAVO~~ and DELTA.
   A- Timeing of Failure
   B-

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BYEMAN ~~TALENT-KEYHOLE-C~~
CONTROL SYSTEMS J...FLY

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NATIONAL SECURITY AGENCY
FORT GEORGE G. MEADE, MARYLAND 20755

SECRET [redacted]

11 MAR 1970

SUBJECT: Letter of Appreciation

TO: Director
Naval Research Laboratory
Washington, D. C. 20390

1. Please accept our sincere thanks for your hospitality in hosting the ninth meeting of the Interagency ELINT RDT&E Coordinating Group (ERG). Our visit to your activity on 11 February 1970 was both pleasant and productive.

2. We are especially grateful to Mr. Lorenzen and the personnel of the Electronic Warfare Division for arranging an outstanding program of presentations and demonstrations. In particular, the presentations by Messrs Mayo, [redacted] provided some new insights and perspectives which are pertinent to the responsibilities of ERG.

3. Please convey our gratitude to the responsible NRL officials.

[redacted]
Chairman, ERG

HANDLE VIA
BYEMAN
CONTROL SYSTEM ONLY

SECRET [redacted]

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MEMORANDUM 9 March 1970

TO: DIRECTOR PROGRAM "C"
Capt.

FROM: Naval Research Lab

SUBJ: Statement of Trade-offs relating Standard and Accelerated schedules for Mission 7107.

REF; (a) NRO approval ltr BYE _____-70
(b) NRL ltr of Concept for Mission 7107 dated May 1969 B-_____-69

1. Background:

The Message of Ref (a) approves with certain reservations the concept for Mission 7107 which NRL submitted by letter of Ref (b). However due to the circumstances relative to the spacecraft Command Systems of Mission 7106 it seems now essential that the community must consider some acceleration of the next launch schedule (that for Mission 7107) for Program "C". Keep in Mind that Mission 7105 is nearly old and should not be counted on heavily for the operational burden of General Search with location capability. When one considers that all aspects of the most recent launch of Mission 7106 were completely satisfactory except a sudden loss of the ability to interrogate/the two of spacecraft it seems that the "Major Emphasis" for Mission 7107 must be replacement or replenishment of the premature spacecraft of 7106. Now under these considerations one must carefully assess the tradeoffs between (1) extension of the state of the POPPY ART which was built into the STD concept of Ref (b) as opposed to the seemingly more important element of "Early Launch Schedule" now indicated.

2. NRL Codes (PG WILHWLM) and (RD MAYO) have carefully reconsidered the proposal of REF (b) and would request that the community review this ~~ARE~~ proposal for a ORC Mission 7107:

~~TALENT KEYHOLE COMINT~~
CONTROL SYSTEMS JOINTLY

HANDLE VIA
~~TALENT KEYHOLE COMINT~~
CONTROL SYSTEMS JOINTLY