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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

2 February 1979

THE NRO STAFF

MEMORANDUM FOR CHUCK SNODGRASS (HOUSE APPROPRIATIONS COMMITTEE)

SUBJECT: Request for Information

Per your telecon request to Mr. Hill on 23 January 1979, the attached tables depict the status of all NRO satellites on-orbit as of 31 December 1978 and their capabilities thru 30 September 1980.

DAVID F. DOYLE, Lt Col, USAF
Deputy Director for Programs
and Budget
Office of Space Systems

2 Attachments
1. Table 1
2. Table 2

Cy to: IC Staff (Capt Bill Working)
ASD (C^3I) (Dr. Dinneen)

25X1

~~(S)~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

SFT Action: W. Hall.

THE NRO STAFF

23 January 1979

MEMORANDUM FOR THE RECORD

SUBJECT: Request for Information

Mr. Chuck Snodgrass, House Appropriations Committee Staff, called today and requested the following information:

W.H.

✓ 1. A table depicting the status of all NRO satellites on orbit and the condition of each. The 30 December 1978 NRO Status Report should be used for this purpose and it should be structured in the same format as last year's input to Mr. Snodgrass on the same subject.

✓ 2. A summary chart which indicates the on-orbit NRP satellite capabilities as we currently expect them to be on 1 October 1979 (start of FY 1980).

✓ 3. An additional chart which indicates our projected status as of 30 September 1980 (end of FY 1980).

While he didn't give us a specific date, we should probably shoot to have the information available by the latter part of next week. A copy of the information provided should be given to the IC Staff.

J. D. HILL
Director

cc:
P&B
S&T

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

TABLE I
CURRENT STATUS OF NRP ON-ORBIT SATELLITES
AS OF 31 DECEMBER 1978

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Vehicle	Launch Date	NRO Staff Estimated Termination Date*	Current Operating Capability (%)*	Comments
MABELI	20 Jul 72	May 79	0%	Normal tasking suspended due to power system converting most energy to heat (battery aging). It is unlikely that normal tasking will be resumed prior to expected reentry in May 1979.
TOPHAT	11 Apr 74	Mar 79	50%	The Spacecraft is operating with one recorder in a very limited utilization of full read-in/read-out only. Orbit decay and burn-in is expected in May 1980.

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ATCH TO CONTROL NO. BYE INTERNAL
Cy ____ of ____ Cys
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Approved for Release: 2024/08/05 C05098740

Vehicle	Launch Date	NRO Staff Estimated Termination Date *	Current Operating Capability (%)*	Comments
RAQUEL-1	29 Oct 74	Mar 80	50%	The Spacecraft lost the technical intelligence receiver 6 months after launch. The remaining vehicle, including all three recorders, is functioning normally.
URSALA-3	8 Jul 76	Nov 79	75%	The Spacecraft is functioning as required except for a slight loss of sensitivity. This has improved from a year ago.
RAQUEL-1A	16 Mar 78	Aug 81	100%	25X1

NOTES: * Current capability is compared to design requirements only. In several cases, the community has noted that NRP systems have significant built-in limitations; e.g.,

a. The current approved imagery systems lack the access capability/capacity to satisfy the indications and warning, search, technical intelligence, general surveillance, and crisis reconnaissance requirements of the DCI.

b. The lack of inherent capability to satisfy [redacted] requirements of the DCI.

c. The telemetry satellite's lack of ability to collect [redacted] signals as required by the DCI. 25X1

[redacted]

Thus, the NRP's total capacity to meet the DCI intelligence requirements is actually somewhat less than indicated by the percent of the current operating capability.

The percentages are the NRO staff estimates which may weigh mission capabilities differently than would specific users. However, the utility of a system is qualitatively indicated: 5% - The system has little collection capability; 75% - There are significant losses in collection capability; 95% - barely constraining, etc.

The termination dates listed above are the NRO Staff's best estimate of system end-of-life and are based upon the latest mission status information and extrapolation of past experience and may not concur with the predicted mission design life. Some minimum residual capability may still exist at the termination date or alternatively some systems may fail totally prior to this date because many of the vehicles are now operating on their last redundant component.

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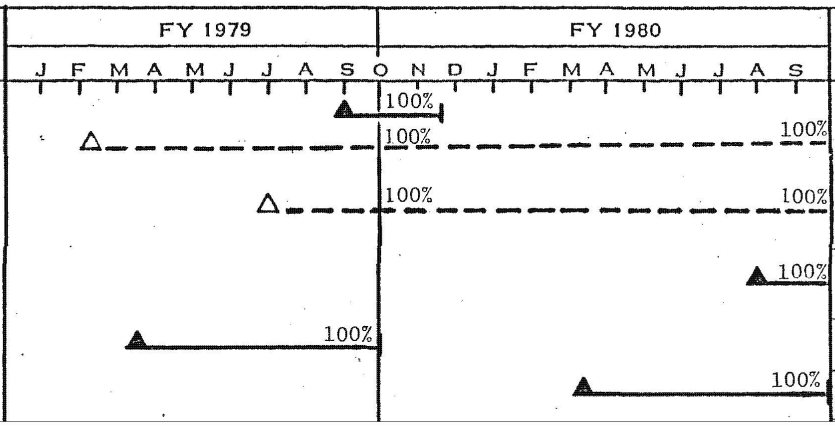
TABLE II

SUMMARY OF ON-ORBIT NRP SATELLITE OPERATING CAPABILITIES 31 DECEMBER 1978 THROUGH 30 SEPTEMBER 1980 (END OF FY 80)

VEHICLE	LAUNCH DATE	COMMENTS
GAMBIT 50	AVAILABLE 7 FEB 79	BACK-UP MISSIONS LAUNCH PLAN AS INI ATE 10% PROBABILITY OF LAUNCH FAILURE
GAMBIT 51	AVAILABLE 1 JUL 79	
GAMBIT 52	AVAILABLE LATE FY 80	DUAL MODE MISSION 10% PROBABILITY OF LAUNCH FAILURE
HEXAGON 15	15 MAR 79	10% PROBABILITY OF LAUNCH FAILURE
HEXAGON 16	15 MAR 80	10% PROBABILITY OF LAUNCH FAILURE



▲ LAUNCH OR FOC △---AVAILABILITY OR IOC ——— MISSION DURATION ••••• DEGRADED CAPABILITY

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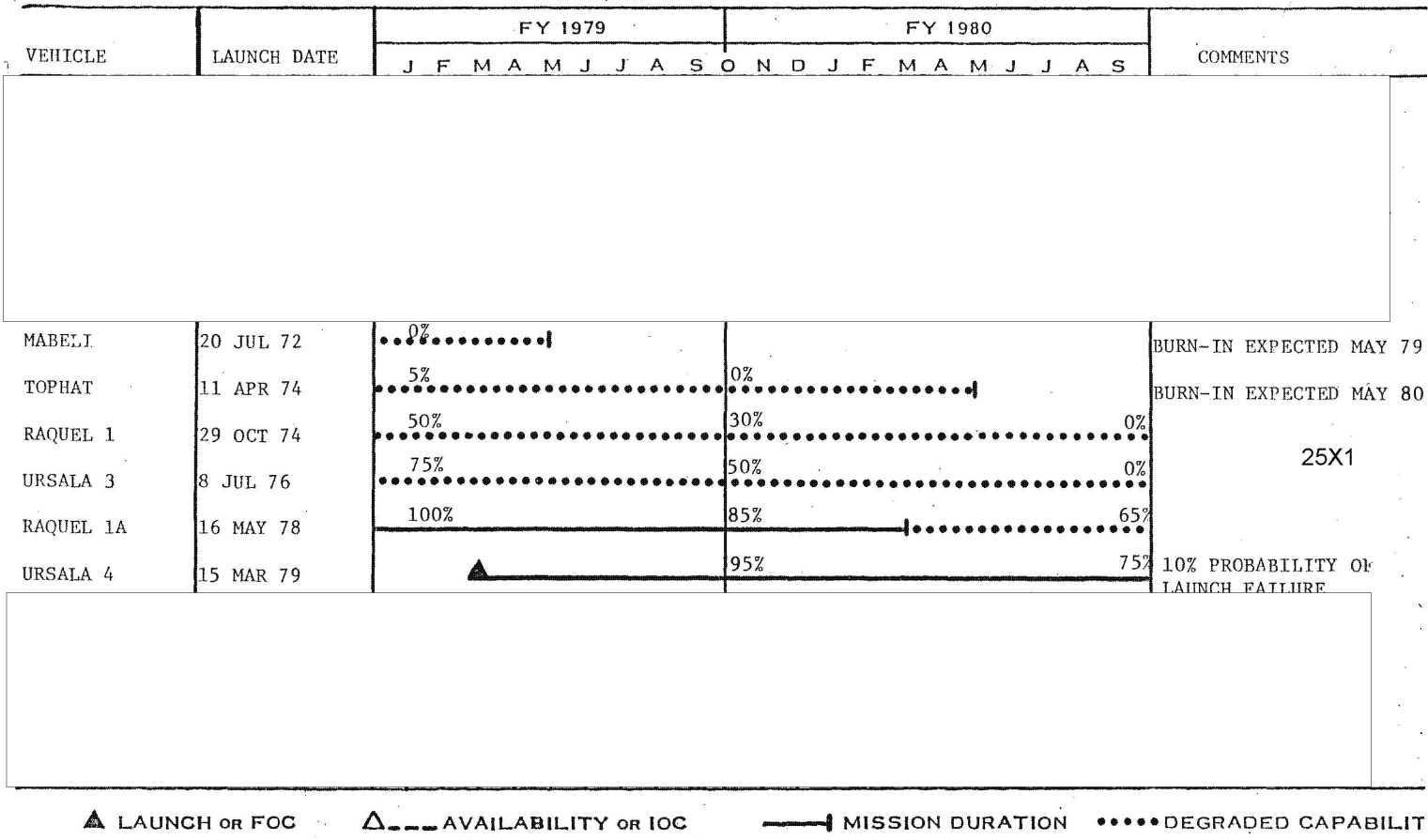
TABLE II

SUMMARY OF ON-ORBIT NRP SATELLITE OPERATING CAPABILITIES
31 DECEMBER 1978 THROUGH 30 SEPTEMBER 1980 (END OF FY 80)



▲ LAUNCH OR FOC △---AVAILABILITY OR IOC —— MISSION DURATION ••••• DEGRADED CAPABILIT