

~~TOP SECRET~~

HANDLE VIA
BYEMAN
CONTROL SYSTEM

PROB-2A

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

HANDLE VIA COMINT
CONTROL SYSTEM ONLY

THE NRO STAFF

April 25, 1968

MEMORANDUM FOR DR. FLAX

SUBJECT: Payload Definition for P-989 (P-11) Unassigned Missions

Problem

To define the design objectives of those P-11's for which rides are available and payloads have not yet been assigned.

Background

Eight confirmed rides are available for P-11's as follows:

Table 1

<u>FTV No.</u>	<u>Payload Name</u>	<u>Objective</u>	<u>Ride</u>	<u>Planned Date</u>
4420	TRIPOS III/ SOUSEA II	C Band/X Band Gen. Search	CORONA J-1	Jun 68
4413	VAMPAN	ABM/AES VHF	CORONA J-1	Oct 68
4407	WESTON	[Redacted]	POPPY-FTV 2706	Nov 68 Jan 69
4417	LAMPAN II/ SAMPAN III	ABM/AES L and S Band (Repeat of 4411)	CORONA J-1	Feb 69
4418	TIVOLI II	ABM/AES Tech. Intel. (Repeat of 4412)	CORONA J-1	May 69
4421	(unassigned)	undefined	CORONA J-1	Aug 69
4422	(unassigned)	undefined	CORONA J-1	Oct 69
4419	VAMPAN II	(Repeat of 4413)	POPPY FTV 2707	Nov 69

25X1

HANDLE VIA
BYEMAN
CONTROL SYSTEM

~~EARPOP~~ [Redacted] CORONA
HANDLE VIA COMINT
CONTROL SYSTEM ONLY

~~TOP SECRET~~
EXCLUDED FROM AUTOMATIC DECLASSIFICATION
DOD DIRECTIVE 5200.10 ODS NOT APPLY

CONTROL NO. Internal
COPY 1 OF 2
PAGE 1 OF 2
25X1

~~TOP SECRET~~

~~TOP SECRET~~

HANDLE VIA COMINT
CONTROL SYSTEM ONLY

The lead time for proceeding with the development of possible new P-11 payloads is approximately nine months to one year. The first unassigned ride is in August 1969. Therefore an early decision is needed to define payloads for the two remaining unassigned P-11's with confirmed rides. In the event that a high priority repeat payload capability is desired it may be possible to refurbish an existing Qualification Test Model (QTM) in a shorter period. Likewise, an early decision is required to take advantage of a possible revision in the existing schedule of missions so that a launch prior to August 1969 could be achieved for an urgently desired mission.

Discussion

There are several unfulfilled requirements at this time for ELINT and COMINT. In addition the feasibility of certain types of collection needs demonstration through a base of data acquired from orbital intercepts. A summary of P-11 payload possibilities to meet these needs as well as desirable repeat types are listed in Table 2. (See TAB A.)

The funds to support the payload development have already been budgeted in the previously approved submissions for FY-68 and FY-69. Some general structural and ancillary support components for the two P-11's have already been procured from FY-68 funds. No further costs beyond those already budgeted are expected for the payload developments in question.

Alternatives

One approach to the payload definition problem for the two P-11's would be for you to decide which of the payload alternatives should be selected on the basis of your understanding of USIB requirements the achievements so far accomplished, and the new capabilities necessary for future missions.

Alternatively, recommendations for candidate payloads could be solicited from both General Martin and NSA to provide the basis for your selection of payloads.

A third alternative would be to solicit guidance from USIB regarding the priorities of requirements and on the basis of a priority listing choose the most appropriate combination of payloads for the two P-11's.

~~CORONA/EARPOP~~ []

HANDLE VIA
BYEMAN
CONTROL SYSTEM

HANDLE VIA COMINT
CONTROL SYSTEM ONLY

~~TOP SECRET~~
EXCLUDED FROM AUTOMATIC REGRADING
900 DIRECTIVE 5200 10 DOES NOT APPLY

CONTROL NO. Internal
COPY 1 OF 2 COPIES
PAGE 2 OF 3 PAGES

~~TOP SECRET~~

HANDLE VIA
BYEMAN
CONTROL SYSTEM

HANDLE VIA **COMINT**
CONTROL SYSTEM ONLY

A decision on combination of payloads from the variety of candidates for the first of the alternatives listed above is easily accomplished but may not necessarily reflect the latest positions of the intelligence community with respect to requirements. The second alternative draws in additional technical and analytic guidance, but nevertheless has the same disadvantage as the first alternative. The third alternative will provide for you a means for ordering the candidate payloads in accordance with an intelligence community position, but at the expense of a longer delay in reaching a final decision on the payload definition problem.

Recommendation

Because of the variety of payload choices which can be made, it is recommended that a review of the SIGINT collection priorities be solicited from USIB. With a statement from USIB of mission objective priorities, appropriate action can be initiated to implement the development of payloads or combinations of payloads to meet USIB requirements.

Correspondence to USIB soliciting guidance in this manner has been prepared for your signature at right.

William R. Boenning
William R. Boenning

~~CORONA/EARPOP/~~ []

HANDLE VIA
BYEMAN
CONTROL SYSTEM

HANDLE VIA **COMINT**
CONTROL SYSTEM ONLY

~~TOP SECRET~~

EXCLUDED FROM AUTOMATIC REGRADING
DOD DIRECTIVE 5200.10 DCES NOT APPLY

CONTROL NO. Internal
COPY 1 OF 2 COPIES
PAGE 3 OF 3 PAGES

~~TOP SECRET~~

~~EARPOP~~ [redacted]

25X1

Table 2 - Categories of Payload Possibilities

• Unfulfilled Requirements/Coverage Gaps:

<u>P/L Purpose</u>	<u>P/L Type</u>	<u>Requirement</u>	<u>Relationship to Over-all Program</u>
1. K-Band Search	New P/L of SOUSEA type, 12-16 GHz	ELINT General Search (USIB-D-41.14/246)	Fills coverage gap
2. [redacted]	Modification of TIVOLI II for TMTY as well as ABM/AES 100-4000 MHz	ABM/AES and telemetry (USIB-D-41.14/303) (USIB-S-10.9/2) (USIB-D-41.14/246) and changes thereto)	TIVOLI will provide added ABM coverage; [redacted]
3. [redacted]	Modified VAMPAN	[redacted] (USIB-D-41.14/246)	No capability for this since 1962
4. Identification, location, and beam mapping of low-powered multi-channel microwave links	New P/L	Same as for SQUARE TWENTY and DONKEY (USIB-D-41.14/246 and changes thereto) (USIB-D-41.14/270)	Provide mapping and signal data for future mission planning, supplement data collected by DONKEY, SQUARE TWENTY

25X1

25X1

25X1

25X1

25X1

~~EARPOP~~ [redacted]

~~TOP SECRET~~

HANDLE VIA COMINT CONTROL SYSTEM ONLY

HANDLE VIA **BYEMAN** CONTROL SYSTEM

25X1

~~TOP SECRET~~

~~EARPOP~~ [redacted]

25X1

Table 2 - (Con't)

<u>P/L Purpose/Type</u>	<u>P/L Type</u>	<u>Requirement</u>	<u>Relationship to Over-all Program</u>
• <u>Feasibility Demonstration</u>			
5. [redacted]	New P/L	None specifically for this signal, but of same type for SQUARE TWENTY and DONKEY P/L's [redacted]	Experimental, "stepping stone" to achieve data for future mission planning
• <u>Repeat Payloads</u>			
6. SAVANT - Soviet telemetry intercept, known frequencies	Refurbish Qual. Test Model	Telemetry (USIB-D-41.14/246 and changes thereto)	To provide added [redacted]
7. EDISON - Sample intercept of [redacted]	Follow-on to the WESTON P/L	Same as for WESTON (USIB-D-41.14/246)	Extension of WESTON coverage
8. TIVOLI - Technical Intelligence for ABM/AES emitters, 100-4000 MHz	Refurbish Qual. Test Model with mods as in 2 above	ABM/AES (USIB-D-41.14/303) (USIB-S-10.9/2)	TIVOLI would provide added ABM coverage; [redacted] timing of launch for a third TIVOLI is probably not favorable considering [redacted] STRAWMAN [redacted] capabilities

25X1

25X1

25X1
25X1

25X1

25X1

~~EARPOP~~ [redacted]

~~TOP SECRET~~

HANDLE VIA **BYEMAN**
CONTROL SYSTEM

HANDLE VIA COMINT
CONTROL SYSTEM ONLY