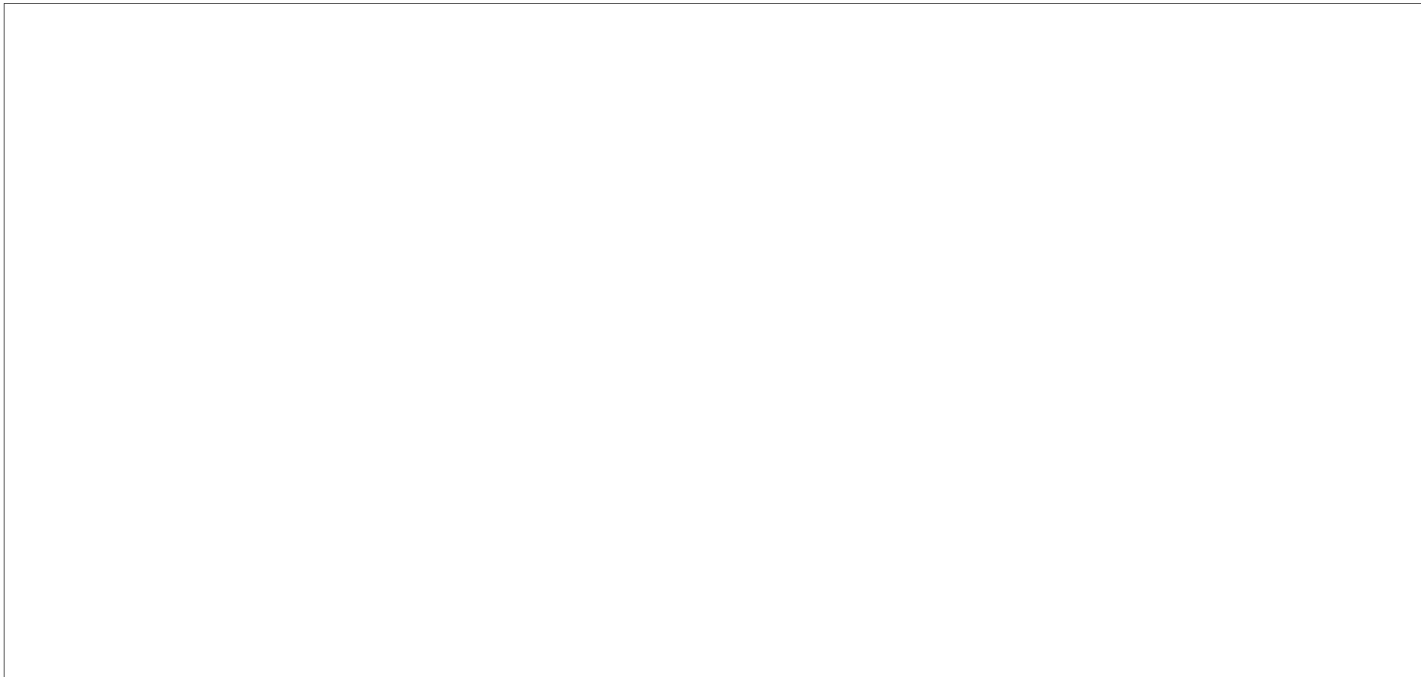


Note to File.....

3 Sept 68

from memory on 2 Sept Meeting with Mr. Boenning....

1.



2. POPPY matters....

L-band and C-band [] signal (1050 PPS)

NRL is to request to modify the 1080 to 1350 band to 1080-1200 and the 1350 to 1800 to a new 1200-1800 with the suggested XMTR [] changes.

Wants Schedule estimate up-dated again.

Wants Potts, (Ray) NRL, and Boenning to meet and settle the need for [] digital system...hopefully before 10 Sept.

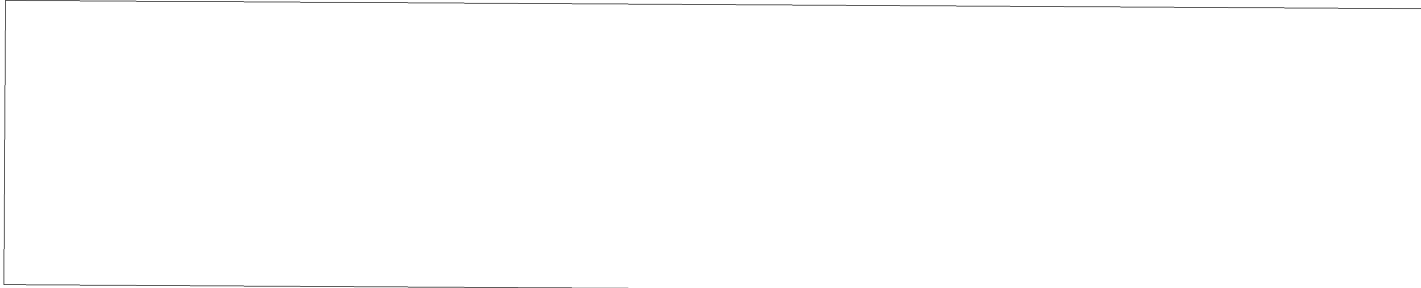
NRL response to [redacted] digital system Review.....4 Sept 68...

1. In order to effectively utilize the multiple [redacted] type data format being designed into Mission 7106 the data must be converted to digital form before it is recorded. The alternative is to use only half of the collection bands (two with each transmitter) for only half of the total number of satellites which the digital system would support. This means that only two birds at a time can be ^{simultaneously} utilized for data collection if the ground station retains an operational Analog system. At the same time the satellites can use only [redacted] separated by at least 80 microseconds in discrete width in order that the analog system may reliably separate the data by [redacted] discrimination at the domestic (NSA) analysis center.

On the other hand if the ground based data collection system is modernized similarly to that now in operational use in [redacted] and like the one being prepared for use at [redacted] the following capability would result:

Four satellites could be monitored simultaneously

[redacted] could be utilized at the same time on each data transmitter (Two per satellite) giving a total of 32 discrete collection bands at one time as the maximum total data collection capability. The spectrum from 153 to 10,000 Mcs could be monitored simultaneously by the use of 32 collection bands, and four satellites ~~xxxx~~



NSA Question Paper of 24 Sept 1968.....

I. Now that the [redacted] targets seem to have been found and the data observed in great depth what are the most high priority goals for the various Programs?

How can we be most responsive to these goals.

Can the use of any of our parametric measurement options be used

Can we add the measurement of [redacted] Option to 7106?

If so, in which band or bands of 7106C or 7106D?

II. Now that the highest priority targets have been identified can we serve a continuing roll in using the capability at the sites in [redacted] and soon in [redacted] to do forward area analysis under the guidance and sponsorship of NSA? How can the we work closer with the SORS to get wider discrimination of the UNKNOWN FILE? The last one we have seen is 1st Quarter 68. Particularly Exploitation of the K_u and X bands should be carried out in support of the guidance which can be derived for the various R & D EW efforts in these areas.

III. How would the community like [redacted]

[redacted] It can be done in very

wide bands ~~now~~ of the spectrum now [redacted]

[redacted] This might be an R & D payload

next time if it is sponsored. Particularly in the portions of the spectrum

[redacted] this

might be a salvation.

IV. How can we continue to develop the capability for Mission 7106 so that its contribution can exceed that of the past Missions???

- 1. Utilizing the forward areas sites as much as possible.
- 2. Operationally utilizing to the fullest the expanded capabilities of this more versatile Mission.

A. [redacted]

3. Deploying the Digital Systems so that:

- A. All four birds can be utilized at same time.
- B. Use all four of the Data Pulse-lengths at same time so 8 bands/bird can be used unambiguously.
 - 1. This gives a total of 32 bands usable at any instant which if tasked carefully could instantaneously cover the total 155-10,000 Mhz spectrum. This capability has not ever been possible before.

4. [redacted]