

~~SECRET~~

MEMO TO Code 5600

29 Sept 1970

Subj: [redacted] meeting with 5614

1. Background:

The NRL submission of 14 August to NIC's Augmented Packard letter on modification of the program in support of Ocean Surveillance has not instilled confidence in either [redacted] regarding our choice of computer...this subject is already seen through comments to L COSBY, Howard LORENZEN, P WILHELM & J. TREXLER on various occasions. Generally these comments reflect a concern for a larger machine, one which will make a larger step into the future.

2. Anticipating this type of discussion I invited Mr. Fred Hellrich to accompany me to visit [redacted] after he invited me to see him 11:30 til noon on Tuesday... The morning was already occupied with a short 1 1/2 hour briefing for ADM BONNER along with [redacted] in Room 200D. There was little time to prepare for the subject with [redacted]

FredH and I walked into [redacted] Office without any papers or notes and he started to talk...

(1) Particularly he seemed to be seeking an understanding of the contemporary SEL 810 Computer system and the software tools which we have sponsored through HRB-Singer for use in the Computer-Aided Manual Analysis type effort now being employed at the sites for Processing.

(2) Additionally he wants the Opportunity to see the software system in action and with full description at [redacted] in the near Future.

The major thrust of his concern lies in the lack of words from our team which would predict the potential for [redacted] so that the program could engage in the Tactical support of the Fleet. He made a very strong point for this as the most realistic step for the "NEXT COMPUTER" whether it is a System 86 or some other system. This is the vital goal and must be addressed in the selection of the computer for the Augmented System. I tried to convince him that so far our attention had been directed toward an initial operational Capability (IOC) which would take advantage of the speed of the new computer and then with software evolution take advantage of the tremendous flexibility of of the SEL System 86. The 40 times initial improvement and the potential for 400 times improvement in productivity is not enough for ~~win~~ the opportunity which now in front of us at this moment... Settle for the goal

~~SECRET~~ [redacted] LOCATION CAPABILITY

BYEMAN CONTROL SYSTEM ONLY

~~Top Secret~~ [redacted]

NSG Visit 29 Sept 1970 NOTE TO FILE

## 1. [redacted] Second-Computer, Installation of:

They suggested that perhaps this instrument should go into the Program Operations Building either where the present QC is or in the Rec/Record/Command spaces...all have computer decking and air conditioning. I asked them to fomulate their concerns for our consideration...there are some differences of opinion in our camp too and our minds are not made up yet.

2- [redacted] BOD is due in mid December and the computer system could be shipped there early to be the first thing moved into these spaces.

Paul's housing was discussed and I offered to send a House Trailer as one thing that we could do to alleviate the stale mate. 5 months is not acceptable on a one year tour when one does not have to go at all. They pointed out all the well known problems of making exceptions but the only thing of merit was that the site had not been given the opportunity of responding to anything that was firm like a proposed arrival date and a request as to what they could offer for housing after this date.

[redacted] is returning to get indoctrinated into tk and may have a little better story on the situation relative to the Trailer idea. NSG was cold to the idea since it seems to circumvent the system. Any exception is up-hill for them and they predict that [redacted] will make no exception either.

3- ROSALIE...Mr. Morgan seemed to endorse this Locked system for O/S because of the "stored Data" aspects which could be dumped out to ships with omnidirectional receiving antennas...full of misinformation as I understand the P-11 dump station has 60' dia dish antennas to keep from loosing even one-bit. [redacted] is necessary before processing can start to take place for navigation purposes as to where was the bird when data was taken... The Dump aspect is even in doubt for ROSALIE. I was under the impression that it was just Traspond only.

Handle Via BHEMAN  
CONTROL system only

~~Top Secret~~ [redacted]

NNNNZKZPFMTWX351  
RR RUXQAAJ  
DE RUXQAA 949 2670902  
ZNY XXXXX VVV  
R 240900Z  
BT  
XXXXX  
464

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Handle via BYEMAN  
Control System

R 231310Z  
TO DIRNSA  
INFO COMNAVSECGRU  
COMNAVINTCOM  
CNO  
ZEM



HRB

~~TOP SECRET~~ BBBB EARPOF BYEMAN CHANNELS  
CNO HOLD AND PASS TO NRL  
DIRNSA FOR K4  
INTERCEPT

TOR 0820

9-24-70

5614

A. YOUR 181915Z SEPT 70 (CITE K4219-70)  
B. MY 100120Z SEPT 70  
1. ANALYSIS OF (PREVIOUSLY DESIGNATED)  
REQUESTED REF A PERFORMED WITH FOL RESULTS:  
A. FROM 0724:39Z TO 0725:35Z, SIGNAL EXHIBITED AN  
1875 PPS PULSE T

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Handle via BYEMAN  
Control System

AIN WITH ALTERNATE PULSES BEING DELAYED  
BY 20 USEC (513/553 STAGGER).  
B. AT 0725:39Z, THE STAGGER CHANGED TO 500/566 USEC,  
RESULTING IN AN INCREASE IN DELAY OF THE ALTERNATE PULSES  
TO 33 USEC. THE FIRST PULSE OF THE LONG INTERVAL, 1066 USEC,  
REMAINED IN PULSE SYNC THROUGHOUT, AND THE SECOND PULSE OF  
THE LONG INTERVAL SHIFTED BY 13 USEC AT THE TIME OF THE STAGGER  
CHANGE AND DID NOT REMAIN IN SYNC.  
2. THE EMITTER WAS NOT ILLUMINATING THE SATELLITE AT THE TIME  
CHANGE. ANALYSIS WAS PERFORMED ON RESULTS OF PRF EXTRAPOLATION.  
SIGNAL WAS PRESENT ON 7105 CHARLIE, VICE DELTA.

225  
#0008

NNNNTWX282  
RR RUXGAAJ  
DE RUXGAA 830 2620810  
ZNY XXXXX VVV  
R 190805Z  
BT  
XXXXX

[Redacted]

R 181915Z  
FM DIKNSA

[Redacted]

INFO COMNAVSECGRU  
COMNAVINTCOM  
CNO  
ZEN

~~SECRET~~ BBBBB EARPOF/BYEMAN CHANNELS  
CNO PASS TO NRL  
CITE K4219-70  
SUBJ: [Redacted]

REF: YOUR 100120Z SEP 70 (PART B, ITEM #3)

1. REQUEST ANALYSIS BE PERFORMED ON REFERENCED SIGNAL RECORDED DURING PASS 16607, MISSION 7105D, TO DETERMINE IF ONE OF THE PULSES OF THE STAGGER REMAINS IN SYNC WHEN RATIO IS CHANGED. FORWARD ANALOG RECORDING TO NSA ASAP.
2. ADDITIONALLY, ANY RECORDING CONTAINING INTERCEPT OF WHERE THE PRF OR PRI CHANGES SHOULD BE FORWARDED.

[Redacted]

120  
#0869

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Handle via BYEMAN  
Control System

[Redacted]

*f m*

*TOR 0938*

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*9-21-70  
5614*

Handle via BYEMAN  
Control System

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4000-215:AB:lmk  
30 September 1970

MEMORANDUM

From:

To: Code 5614

Via: Code 5000  
Code 5600

Subj: Summary of agreements reached in meeting in my office 29 Sep 1970

1. It is my understanding that Code 5614 will do a comprehensive evaluation of possible computers and software systems for Program C. The objective of this systems study will be to produce a set of plans for a processing system which will yield data in as near real time as possible. This study should not be constrained by the requirement of keeping the price of a computer in the \$400K range. In addition, trade offs between different computers and different software systems should be considered. The study should indicate speed advantages in data processing which might be achieved as a function of the dollar cost of the selected computer system.

2. Code 5614 will do a system study which examines the advantages and disadvantages of various possible sites on the East Coast of the United States, including the . Such studies will indicate possible advantages to be gained by different site locations.

3. Code 5614 will arrange for Codes 1000 and 4000 to visit and view the operation of the new computer. At that time, personnel will be available who will be able to give Codes 1000 and 4000 a comprehensive briefing of the software including the algorithms that have been adopted in its development. A fairly detailed discussion of the factors which influence computer selection will be expected at that time.



Director of Research

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CONTROL SYSTEM ONLY

