PROGRAM "C" BRIEFING TO [redacted] and Technical Representatives 3 Feb 1970

~~TOP SECRET~~

I: INTRODUCTION & STATEMENT OF OBJECTIVES Mr. H.O. Lorenzen

II: Description of POPPY Concept
Historic summary of Achievements
Introduction to Mission 7106 R.D. MAYO

III: Evolution of Spacecraft techniques and
Hardware . . . . . P.G. WILHELM

IV: Evolution of ELINT SYSTEMS V.S. ROSE

V: Evolution of Site Data Processing systems L.M. HAMMARSTROM

VI: HARDWARE DISPLAY

VII FACILITIES Tour(if desired):

VIII: Discussion Period

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MEMORANDUM

5 February 1970

Subj: Items for consideration by the PCPC.

1. NRL Participation on the SORS Evaluation of Mission 7105. SORS must be advised not only of our guidance but of how we carried out the design. Much of the guidance is not a matter of record, especially that which came from the Harry DAVIS PSAC group, in late 1966. The results of this Mission are not all a matter of record either, especially in the matter of how the Program underwent a great change in method of data handling at the sites during this deployment. The Reports from NSA are not near indicative of the total results of the Mission, there are a lot of things which have been reported only piecemeal. How long it took after initial intercept before the written report was published is not likely to be reported. The real reasons behind the discarding of three months of data will not likely be peported as the inability of NSA to have a workable software package to deduce the data automatically due to their transfer from IBM computer to the CDC 6600 computer. They used the excuse that the birds were [redacted] This fact has since been smoked out but it cost 3-months worth of data at least. NRL alone has the prospective and continuity of interest to bring matters like this to light now after 3 years.

2. The Analysis Resources at NSA and at the site often take the same data with vastly different results...WHY??? [redacted] raised this question when he asked for the two analysis worlds to be exposed in December. The Program Office must exercise its perogatives regularily to assure that the Analysis resources at NSA are viable and well motivated and productive. Their charter is not garantee that they will perform either today for the contemporary missions or tomorrow for the future ones. The PCPC can assess this resource at regular intervals but not on a single person visit.

3. This Program suffers from "Lack of Exploitation". [redacted] and his NEOIO group seems to be an untapped potential toward enhancing this program and bringing pressure on NSA to use the site's capability first of all toward the job that is perishable and can't wait to be done at NSA. Wider exposure of the "UNKNOWN FIle" might get them pegged earlier but it takes a gentle pressure from some source close enough to keep from alienating the NSA effort. The leadership lacks inspiration and sometimes appears like Puppets without strings...we have little opportunity to tell them what is important and what to emphasise. Maybe NFOIO can help.

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4. The [redacted] computer system can be deployed earlier than the building availability if it is put into a Trailer temporarily. However this demands some concerted actions on the part of NSG and the site:

A- Personnel availability for training and deployment.

B- Cooperative climate relative to deployment of a TECH REP ie Housing and endorsement of past TECH REPS.

C- Identify the Projects Officer (Like Ron POTTS) so qualifications of TECH REP can becomplimentary.

D- get consumables in pipe-line (Mag Tape etc).

5. Site support by NSG seems to be long-on-talk and short-on-action in the [redacted] The alternatives to NRL funding replacement/power cable are very grim and in the final analysis the risk will be small relative to the great loss of operational capability which would result if we waited until NSG gets around to replacing this power line themselves. I recommend that we look carefully at all the alternatives before deceiding what to do, but NSG must be made aware that power, water and personnel and RF Quiet are comodities of A Cryptologic site and not to be furnished as if they were some extension of an electronic-system which we do furnish.

6. The Concept for Mission 7107 is still getting little attention...Monday in 4C1000 there is a meeting and from what I understand two NSA experts [redacted] are to be present...this came from Boenning Tuesday and not from [redacted] who extended our invitation. It really makes a difference to us who is to be there asking questions because we will assemble the propper support staff.

We need to clearly identify the NAVY's threats so that we can optimize the concept to provide the best capability here. Things like [redacted] are not now in the concept. How about the Geographic Location Sort? Is this to be emphasisized or not?

7. The USIB Guidance for all collection and processing of Overhead ELINT clearly states the Total Weapon-systems search concept as opposed to the concentration on single elements of the known system...we must continue to press for this in the collection systems but at the same time the processing resources must likewise place future emphasis on this across-the-spectrum type analysis using all parameters available. We are uniquely qualified for this type of collection but our paralysis in the analysis at NSA leaves us completely helpless to achieve our full potential in this direction. Can DIA for instances bring official pressure to bear so that NSA will show someeffort in this direction other than a simple "Bookkeeping type Program" which [redacted] have borrowed from the west coast. This USIB Doctrine is very clear and should be enforced before the next Mission flies.

8. This Program enjoys full site emphasis only at [redacted] and at the other sites it ranks well down in importance by the local ~~xxxxx~~ interpretation. What can be done to raise the image at each of the sites so that the interest and attention will be sustained for the long haul? One thing that must happen is that the interested parties in Washington must communicate back to these sites with information to fill the gaps in their knowledge. These real-time operators are the lifes-blood of the program and they have the power to make or break the program. Things work well in [redacted] due to the esteem with which the program is held. I know that the support that [redacted] receives is perhaps better than the other sites but the difference is not in care-packages from NRL nor is it in visitors. It is simply a matter of local interpretation of the programs importance.

9. The quarterly report paper on the program has been written I understand. We did not participate and I wonder why? So far I have not even seen it.

10. We must maintain a close contact with the other programs under the NRO if we are to maximize the benefits which this program will supply. We need a complete review of [redacted] for instance(17 months since the first and last word on this important competitor). How can we on the technical team be kept abreast of these efforts??

11.

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11 Feb

Aspec[redacted]he Briefing due for the ELINT RDT&E coordination Group ~~14 Jan 70~~

1. Membership as given by [redacted]

A- [redacted] OP O7T
B- [redacted] DDR&E ?
C- [redacted] NSA
D- [redacted] ACSI Army
E- Col John Marks Army
F- Art Thom NSA
G- [redacted]
H- [redacted]

2. Emphasis for the briefing given at the CONUSUK conference a month ago. and from memory they want a status report on POPPY today and Future.

3. To what extent will the rest of the Division be involved? Who is coordinating this visit? Where will it be given? and By whom?
I suggest that since ELINT is their basic mission we should give it using the accomplishment portion of the standard briefing with Lee and maybe Johm Martin going through the Software description that they gave to the NRO.

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Interagency
ELINT RDT&E Coordinating Group (ERG)

AGENDA

Ninth Regular Meeting, 11 February 1970

SUBJECT	TIME
Special Project	0900 - 1030
Naval Intelligence Processing System (NIPS) Improvement	1030 - 1130
Lunch	1130 - 1300
Ocean Surveillance (OASIS)	1300 - 1400
Simulation Program at NRL	1400 - 1500
Executive Session	1500 - 1530

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[redacted]

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Inclosure 1

 ERG meeting 11 Feb 70

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Collection Systems in the Spacecraft

Frequency
Omnidirection vs. directional
Parametric measurement capability.
Sensitivity

Spacecraft

Number of Collection Systems
Command System
Average Power in baterry Re-charging system
Weight
Stabilization
Station-keeping (Micro Thrusting)
Memory for Housekeeping and attitude info.

Ground Station: Multi Service Effort(Cryptologic Community)

Number and Location
Receiving Systems
Antennas, PreAmps Training mechanisims.
Phase Linear Receivers vs R-390's.

Recording systems
Analog-to-Digital Data Conversion system
Computer to assure Quality-control
" to effect limited perishable data reduction at site.

Analysis Capability at site....
Manual ELINT analysis and SOI reporting
Computer assisted data analysis effort for Location of emitters.
Can locate and by itterative error reduction process have demonstrated ability to determine the elevation of aircraft signal...have shown ability to determine mobile target (Ship) making hard turn to Port.
PRF Signature of a specific emitter now possible when you read PRF to three decimal places...thus YO-YO's are known by specific PRF...
Moskva HEADLIGHTS first seen from space by 7105.

Interrogation of Satellite
Receiving-Recording
Quality Assurance assessment QC and Computer
SOI Search, Manual and computer data reduction
Electrical Message for [redacted] Prioritization of data reduction.

Ephemeris Requirements and
Improvements now being used and potential for future improvements.

The basic differences in how NSA and Site can see same data and have different results is explanable by the divverences in a Bulk Processing world and the "Computer assisted Manual analysis" world of the site. These data reduction systems must be employed judiciously so that the strengths and weakness of each are taken into account...Lack of Exploitation is our greatest delima and the site capability for exploitation has given us the opportunity to perform the Perishable type of data reduction that can not wait to go back to NSA if its value is to be realized.

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