

19 Sept-73...Review of NSA History preparatory to DRA/NSA/PME-106/NRL(7000)

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Even though NSA was a partner in the POPPY program, their participation was feeble and they failed miserably to exploit the data and the operational tasking of the program. It was a source of considerable embarrassment to them that in the last three years as an example, [ ] could take the same data that they received and the difference in results were unbelievable...NSA never to this day was able to isolate and locate automatically, any emitter unless it scanned in 360° manner...this eliminates all the SAM and ABM emitters and thus they had to use extensive manual isolation techniques to treat even these highest priority signals. In explanation of this dilemma I can only say that in the late-66 Harry Davis Review of the ABM capability in the overhead programs, NSA must have made a commitment to a system other than POPPY. This is reinforced in two ways: (1) significant development of the POPPY processing effort at the Fort following [ ] (1966) were not evident and (2) the shift of the their best [ ] talent to [ ] in 1969 indicated a greater need for this specific talent in a program that was conceived in late '66 or early 1967. Thus one can see that NSA (1) did not exploit POPPY (2) did not aggressively undertake their processing responsibilities, and (3) suffered by the limited success of the overseas POPPY onsite processing. [ ] There prevails to this day a deliberate mandate that NRL will not be allowed the opportunity to embarrass NSA by doing well a job that <sup>NSA</sup> have been unable to do. Thus in the Fall of 1971 NSA ( [ ] ) made the first significant attempts to "Get on-board" the POPPY Processing effort that NRL had deployed to the sites. This effort had many manifestations and some of them were joined by CDR [ ] and these exchanges are documented by [ ] They culminated a year later when the SPO under [ ] took the POPPY "On-Line" software development away from NRL and gave it to [ ] of the SPO, & [ ] of NSA. This was brutal, premeditated and served to delay the software package by at least six months, even if the plan for development was changed only slightly. This climate of denying NRL any possible software opportunity extends to the present issue of Control Computer where every effort has been made by the SPO ( [ ] ) to pass the responsibility for the entire (Integrated) software effort to the contractor. There is an ever recurring suspicion that the wish of [ ] is to have the collection and processing job (Hardware design and software design) integrated at the TRW scene and not at the NRL in-house arena. There have been strong indications in this direction for over 6 months since the [ ] of the SPO.

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2. The events leading to the [ ] Program started with the 7-month study, the request by Capt [ ] to disclose how our technology and that of the P-11 could be adapted to serve on only Ocean Surveillance but the entire spectrum of Tactical ELINT collection and Processing. From the Capt [ ] request we broke out an advance portion of our 7-month study and disclosed it to the Community 5 months ahead of time and it was known as [ ]....NSA had knowledge of this about a month or two after it was given to Capt [ ]. Our processing plan was not different from POPPY except that we intended to take fullest advantage of the potential for "Real-time Geosort" a technique that still has received only passing notice by the NSA sponsored Software Studies and by the TRW winner of the competition. This is one of the most significant advantages of the TRIPLET and it is dormant to date.

3. The message from McLucas to Geiger, Herman and Bradburn of 29 Feb 72, set [ ] into motion....The JOINT PROGRAM PLANNING GROUP under [ ] had NRL Participation (Pete and Mayo) NSA ( [ ] with [ ] and [ ] and [ ] in the background, Aerospace [ ]. Philosophically speaking NSA's participation was inconsistent. They aggressively supported the "Fine Frequency" parameter measurement in 3 bands which finally collapsed of its own stupidity and in support of their recognized Secondary Mission little of substance was done until about <sup>October</sup> / December 1972 when the 8 bands were increased to 17. SLM option was raised in answer to the SALT verification issue and not NSA's Secondary Mission. Had this option received even half as much support from NSA in the Joint Prog. Planning Group as they expended on Fine Frequency option, it would have been included in the Mission Technical description.

4. Budget participation by NSA during this Joint Prog. Planning Session which lasted for three months, was limited to a single sheet of paper written in longhand and totaled to about [ ] Million through FY-78 and had [ ] in FY-74 as an example. The logic supporting this was ROM and was stated by [ ] that NSA wanted one-third of the Action for [ ] and if it were going to cost [ ] Million for the entire Program their share should approach [ ] and after all [ ] Software cost \$X Million this programs software would be close in cost to the same amount.

5. Near the end of the 3-month Joint Program Planning period, NSA made a positive step to draw the line of responsibility between NRL and NSA at the receiver output Terminals; thus they were funding the collection system except for [ ] antennas and the receivers. [ ] included eleven computers already in the POPPY program [ ] million.

\$8 M for Telemetry and [ ]

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Thus the NSA's estimate bears little resemblance to today's truth as we know it. It was inflated to reach one-third of the overall Program cost and then expanded in area of responsibility to give credence to this excessive claim for cost. Truth has filtered into NSA cost estimates by many mechanisms unknown to me but Dr. Hall was one of them I'm sure. Accompanying this reduction in cost estimates for NSA's share of [ ] there has been a retrenchment in their/area<sup>accepted</sup> of responsibility...no longer does their claim extend to the "Receiver Output Terminals" so we have an area of responsibility that is not funded. Realistically I believe that the initial NSA claim to it was invalid and without significant precedent but my voice would not carry-the-day in the arguments which occurred over this in May and June of 1972. [ ] and [ ] finally granted that NRL would design the collection system for the sites and build a Prototype....thus we kept our team in the ball game, accepting NSA's wish to fund this portion of the effort as well as the more reasonable Processing part. I'm sure that [ ] has many precedents to draw from in accepting this logic in the first budget submission for [ ] but Cost sharing Plans evidently were not honored or <sup>perhaps were always</sup> inadequate for the need.

6. Some of the Basic Fundamental Goals for [ ] have seemingly been eroded away over the last 1½ years: ~~XXXXXXXXXX~~ (1) Make it a Ford NOT a Cadillac and (2) Make fullest use of Existing Resources from POPPY.

In addition to these concerns there is one that challenges the heavy emphasis on NRL supporting 4-Plane system when only the 2-Plane system is approved. So far we have agreed only to (1) spending SPO \$ on CSC contractor effort to (2) take whatever documentation exists without changing our prioritization and build a Bid Package again with CSC. On the ~~XXXXXXXXXX~~ contrary, we have not hired any new personnel nor employed existing personnel in any significant way to support the 4-Plane system. Not that we do not believe in it, but because it is not approved. Perhaps SPO overemphasized their point here and we fell back too far to counter their seeming lack of First and Highest concern for Design and Development of the 01-series. We are committed to a schedule and a Budget for 01 and we will not dilute this for what might happen in X-com in November.

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