

Bye 059323-94

NOTE TO FILE

22 June 1970

Subj: RESPONSE BY Code 5614 -TEAM IF NRL WAS ASKED TO IMPLEMENT THE
PROPOSALS OF THE PACKARD LETTER:::::

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1. BACKGROUND

~~TOP SECRET~~ [] was not really consulted in the staff work leading up to this letter and those matters which were brought to our attention were not taken in our context in the final paper...for example we indicated that up-dating the first site would take 12 months if the Program "C" sites like [] were not relocated or if [] were not given either a digital nor a semi-automatic system. Since our group is oriented for an evolutionary support role now, we are poorly equipped to support a complete and total establishment of an entire new site. The efforts of up-dating [] sites must therefore be taken in serial fashion and at about 6 month intervals with Program "C" efforts having priority. We also submitted a paper to [] giving a strong argument for not just duplicating the existing capability but rather to take a 6 year step forward from 1965 to 1971 in the availability of computing power. This would result in not just a TWO TIMES improvement in our combined locational power but would be some between 40 and 50 TIMES improvement. The costs are not all that different, just the time and productivity. The plan even called for taking the existing systems from [] and moving them to [] and giving the existing [] sites a larger more powerful computing system to do both jobs simultaneously not on a dedicated basis as the final letter suggested. This had the merit that a strong case could be made for NRO/fiscal support since they would directly benefit at the [] present sites by having a far greater productivity along with some improved Navy capability.

The weakest point of the Packard letter is the matter of where is the money coming from. It follows that it must come from the part of the community which is served by the modification or exploitation. Where does the NRO program get improved in this proposal? A greater acclaim could have resulted if NRP was the major basis of adjustment of site resources.

resources
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2. If the NRO is asked in any way to implement this proposal NRL must be prepared to point out the methods where for the same money, the NAVY and the NRO could be served much better than is possible by the proposal.

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NRL must be prepared to document this in detail with a full plan and schedule. This is consistent with the basic pitch we have received from [] and Capt Geiger that we must make a consolidated proposal for enhancing our future or run the risk of being killed by attrition and other programs re-inventing our wheel. The major hang-up seems to be exploitation of our data and with NSA in the driver's seat they will continue to sponsor other programs doing our job because these other programs' data is not as difficult to handle at NSA. It seems that we must develop the methods of streamlining our overseas processing to the point that the message traffic will be acceptable to NSA; One method of gaining their blessing on this site-substantiated data is to have a man assigned to each of the processing sites from NSA so that he can accredit the data on the spot for distribution to the users. The SAC people might want the same privilege, as might the ARMY.

3. In code 5614 the personnel manning situation is poorly equipped for a gross up-dating of several sites under a forced draft. It would be necessary to get significantly more "Technician" type help for such a job as opposed to ^{our normal quest for} additional "Engineering" help. ESD has in the past been our largest source of recruitment in the Technician area, and at this time they are critical in personnel.

4. NRL Supply Division would feel the impact of such a work load and it would be necessary for NRL Management to consider the overall effect and balance it against the difficulty of getting the job done by any other means such as subcontracting out the entire job or procurement deployment and [] llation, training and logistic support which we have supported in the past. There must be a happy medium but history will

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show that our forte has been in the design areas and closing the loop in ^{establishing System Confidence, Enhancing Training or processing} the other areas so

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5. Working Space for such an effort is now not available...there is no suitable STAGING AREA for the division except in the hallways. Short-stop antenna development now has this problem and is asking us for the loan of one of the Trailors which was destined to house the computer for [redacted] that may [redacted] diverted to other use here at NRL.

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In the future plan for Program "C" effort along the matter of working space has not had ~~any~~ ^{adequate} consideration except as it is implied along with the subject of personnel. The completion of the entire 3rd floor is the most attractive opportunity aside from a move to the old Chemistry building. Moving the entire operation to another building would greatly inhibit the efforts of Vince ROSE as an example and the 18 month ^(9/67) schedule might be jeopardized. Vince's effort now has severe pains in being able to ~~take on~~ tackle more than one spacecraft at a time and this demands that they be quite similar in order to predict the schedule. He needs the use of another anechoic room and an good antenna man as one of his highest priorities. Wilhelm has both but so far only a few of our problems ~~are~~ have been solved in the area of the chamber in A-59.

6- the entire area of the Interrogation complex must be pulled in tighter from a design and documentation and logistic support standpoint relative to the analog receive and record and Analysis effort under 5614. Having it under the supervision of 5600 consultants makes this only permissive and not mandatory. The most severe discontinuity was unintentional but nevertheless costly in time and effort both here in 5614 and in Wilhelms group when they informed Withrow that they were going to change ~~the~~ the Channel A modulation system to that of a Phase Modulation system. We went right ahead blindly and order and received a quantity of Channel A receivers built by RACAL and deployed them and then we learned of the pressure to change to a Phase locked receiver system Wilhelm was buying for their

use. Mr. Withrow just didn't understand the significance of this change and in his capacity interfacing with the Command systems he was the

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only point of interface on this one, so \$80K down the drain plus ? time.

7. The conversion of HRB Singer Personnel to Civil Service should begin by getting all of them to establish their equivalency in GS rating. This must be done first before any other step can be taken. Also, while the exposure of Jim, Lee and Mark has been far more extensive than the more recent additions of team, this is not to say that theirs is the most important talent to be incorporated in the Civil Service status. Some talent can be obtained more easily than other so be careful that this is considered in any attempt to ~~xxxxxx~~ enhance our team. It makes little sense to convert existing contract personnel to GS: if there is *such* a firm limit on the ceiling points ~~that are available~~ unless there is an attempt to eliminate all contractor personnel. In the matter of gaining experienced and calibrated personnel for supervisory positions however, this matter has significantly higher precedence than maximum utilization of ceiling points. Our investment of talented personnel is very limited if you add the requirements ~~of~~ calibrated and available and this includes Lee and Mark in the unique group where we must seek our leadership.

8. In the matter of an Administrative Assistant for 5614 I would if all things were equal suggest that he be a Male with Engineering Management and Staff support experience so that a portion of the liasson effort could be shared. The standard requirements for communications both verbal, ~~xxxxxx~~ and on paper are necessary. His GS stature could be GS-13 or higher with a degree of maturity and judgement evident. One of his jobs would be to see that the work is carried out and to ease the interfaces between the various groups with the Program "C" effort at NRL. This may sound like I am writing my own job description but that is the nature of the job; to do many of the things that I have had to do in the past.

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DIA BRIEFING AT NRL ON 1 July 1970, Plan for

~~Top Secret~~ [redacted]
Basic outline and contents for such a briefing as viewed on 23 June.

The visit is occasioned by the arrival of the "Packard Letter" on the DIA scene and they must be striving to assess the validity of the POPPY Program as a vehicle which justifies this manner of exploitation and expansion during the climate of retrenchment and reduction in the overseas type investment. On this basis it must be concluded that while here at NRL this party must come-on-board the POPPY program in sufficient detail to understand the the ^{po} potential does indeed indicate that NAVY exploitation is possible, attractive and only a beginning of multi-service exploitation of this prolific Space Sensor. We must identify the jurisdictional constraints under which POPPY effort

[redacted]

[redacted] [redacted]

~~was~~ managed, tasked, operated, ~~and~~ analyzed and reported.

By having [redacted] give the introduction the burden is on him or a selected alternate to give a concise pitch as to the orientation of effort within NRL, NAVINTCOM, NAVSECGRU, NAT SECURITY AGENCY, SORS AND USIB ETC. The size of the effort at NRL and how it is divided ~~by~~ between ARD for Wilhelm and ELINT effort under EWD

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File in Briefing file~~Top Secret~~

AGENDA FOR VISIT OF

DIRECTOR OF NAVAL RESEARCH

25 June 1970

Arrival at NRL Main Gate - Escorted by CAPT Davis representative
to Bldg. 56, Rm. 200D.

1405-1415	Introduction and Welcome	
1415-1425	Organization Structure for Program "C"	R. Mayo
1425-1445	NRL Facilities, Evolution of Hardware and Spacecraft Techniques	P. Wilhelm
1445-1505	Program "C" Evolution	R. Mayo
1505-1525	Program "C" Achievements	L. Hammarstrom
1525	Depart Bldg. 56 and move to Bldg. 59 for a tour of facilities	P. Wilhelm
1555	Depart NRL, Main Gate	

*This briefing with new DNR was difficult & spotty
I feel we gave him a better view of our expertise.*

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22 June 1970

Notes following the meetings during the past week with [redacted]

1. A systems analysis group has been formed under Gen Allen:

[redacted] SAF = Telemetry

[redacted] (NSA) (formerly of the N-group) = Telemetry.

[redacted] = EOB

2. Under Sec. Frolke a gent by the name of VANCE has responsibility for performing the System Analysis of the NRP....he met under some circumstances with [redacted] of CIA and the result was a merger for the purposes of Systems Analysis....this now gives [redacted] the power of Sec Frolke's office in requesting information and certainly it will bend many of [redacted]'s old antagonists all out of shape, (NSA, NRO and some in DIA)

3. [redacted] has replaced Charles CRAM as leader of the POPPY resources at NSA shows all indications of having the right "can do" attitude for this historic dead assed group. He comes equipped with his share of prejudice and I have recommended that Ron POTTS can be able to normalize some of his thinking in the future.

[redacted] wants to participate in many of the areas of spacecraft design and tasking which have largely gone by-the-board at NSA. As long as his inputs are constructive it is all right with me but I suspect that much missionary work is needed with him to make him a strong believer in our type system. He has many times already sung the praises for the "Record and Dump" Multigroup type system with its 150 n.mi. diameter Downward looking type collection. In any consideration of future designs this will be the direction he will push. The only reason I can advance for this view is that the data from such Multigroup systems represents a much reduced work load for NSA. The basic counter for this logic is that the Air Force Office which sponsored Multigroup now is with [redacted], advocating the [redacted] which we have pioneered.

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[] called in [] HEAD of the "A" Group. His testimony regarding the needs for [] coverage against the Ka Band ground based threat was very excellent and somewhat late since NSA has contributed nearly nothing in the architecture of Mission 7107 to date even though they have attended all four meetings under the sponsorship of []

[] Now it seems that Ka band is a real threat for SAC and we must be able to not only intercept but also must locate the signals like []. The former one has been infented by POPPY 7105 and 7106 and even though for 7 months when 7106 was fully operational and tasking was provided in two of the operational groups(A-6 and A-9) NSA has been unable or unchallenged in their analysis of the 100 MHz from 14.8 to 14.9 to provide any locations. The main reason for this is that their machine processing will not do this job automatically and they haven't thought about doing it any other way until Tuesday 16 June. Ken GALLAGHER now is trying to find data that is seen in common in this band so that they can try to locate some signals in Ka. His first statement was that when ever the [] was heard it has not been reported as []. I think that the records at [] should be queried...NSA's answer came back a little too quick unless they have it in computerdata base.

I suggested that the only way we could adjust our 7107 concept to help would be to include for [] the other higher freq Ka band from 14.8 to 15.1 GHz as well as the lower one already under our scheduled program. In case some band must go I asked them to assess the validity of the 13.3 GHz signal as a threat for POPPY and their answer was that it is on the MIG-21 FISHBED J version as an AI (nose mounted) installation and would not be a good high interest challenge for our mainbeam system, but incase the hardware was also used for some other purpose than AI systems we should go ahead with it. Therefore the listed priority for Ka band is as follo [] 15.1 highest, then 13.3 (12½ to 14½) th

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