~~TOP SECRET~~ [redacted]

NO. [redacted] Copy #

[redacted]

1 September 1966

MEMORANDUM TO HEADQUARTERS

TO: [redacted]

FROM: [redacted]

SUBJECT: PROGRAM MANAGERS' MEETING OF 30 AUGUST 1966

1. The Corona Payload Managers' Meeting convened at 0900 on 30 August. In attendance were Messrs. [redacted] and [redacted] from [redacted] and [redacted] from [redacted] and [redacted] from [redacted] and [redacted] from the Resident Office.

2. [redacted] presented the happenings in the Program since our last meeting on 12 July. In addition, he opened for discussion several items which were of concern to the Resident Office. These items were:

A. The first PERT analysis of the J-3 Program was made. It was indicated by this analysis that the critical path showed 9.8 weeks behind the scheduled date of 22 July 1967 for the first launch of the J-3. The critical path went through the A/P effort, QR-2, and the [redacted] effort on the Recovery Programmer, the Engineering Vehicle, and the capsule cover. It was emphasized to both [redacted] and [redacted] that they should do all possible to reduce the times of the activities on the critical path. For example, [redacted] was requested to investigate what they could do to complete the immediate constraining activities of assembling the Recovery Programmer and starting its tests and completing the capsule cover and the assembly of the Engineering Vehicle including its tests. [redacted] was asked to analyze what they could do to reduce the times of the activities involving the QR-2 qualification tests. Both [redacted] and [redacted] brought their 1 September up-dating PERT information with them and we are in the process of making a computor run with this data. [redacted] has still to furnish us additional time reestimates for activities not reported for the 1 September up-dating. All of the Managers brought back with them a copy of the Integrated Network plus the 1 August computor run. [redacted] and [redacted] are to submit analyses as to action they will take to reduce the criticality of the network.

B. The PG situation, that is the slippage of PG-5 thru 9, was throughly investigated and analyzed by the group. It was determined that the present schedule would provide a very large overlapping effort on the part of A/P to process the J-1 and the J-3 qual unit (QR-2) at the same time. It was the consensus of the group that the best solution would be to have [redacted] deliver PG-5 and PG-6 as a normal J-1 system and to report when lenses would be available for PG-7 thru 9 so that

an individual decision could be made on each of these systems. That is, a decision as to whether these systems should be provided as PG's or as regular J-1's. [redacted] will have his staff analyze the revised schedules of delivery of the PG instruments to see what the effect would be on the overlap and on the number of back-up systems. (As a result of A/P and the R.O. analysis, [redacted] was sent to [redacted]

[redacted] made a favorable report on the calibration effort on the PG systems. In effect, using PG-2 data, the Washington calibration effort was able to determine that the PG systems could be calibrated on a repeatible basis to about 10 to 15 microns. Since PG-1 material data had not been calibrated to any great extent it was decided that [redacted] should have the calibration laboratory conduct a calibration of PG-1 so that this would be available for comparison with user data.

C. [redacted] opened the discussion of the current problems we are having with the J-1 system particularly those that bear on quality control at the three associate contractors. A list was furnished to each of the associates which spelled out the specific items which were causing concern to the Resident Office. It was emphasized that the J-1 Program was operational and the only system providing the National effort with search and surveilance capability and we should by no means relax any efforts to keep this system in excellent operating condition. [redacted] felt that the J-3 Program may have impacted or caused some of the problems we are now experiencing with the J-1. It was stressed that each of the Managers should return to their organizations and exhort their teams to put more effort on insuring that the high quality J-1 components are delivered on insuring that the tests and check-out procedures are carried out faithfully under good supervision. A copy of the lists furnished to each of the associates is included in the attachments.

D. The work statements were discussed for a short period. It was evident that all of the work statements had been satisfactorily coordinated among all the associate Contractors with the one exception that the requirement dates of GFE from A/P to [redacted] was not satisfied to the fullest. A list of the new GFE delivery dates to Philadelphia was furnished to [redacted] who will examine this to see if he could live with the dates given. Such items as tape recorders and TM components however were always known to be late delivery items - i.e. after the dates required or desired by [redacted]

E. The qualification tests of the take-ups and the supply cassettes at [redacted] were also discussed. It is apparent that the take-ups and supply cassette can pass the sinasoidal vibration levels. However, in the random vibration mode the take-up failed, that is, the take-up shaft broke

at the 12½ G's RMS level. In addition, the supply cassette, on random vibration performed satisfactorily in the XX axes but in the YY axes there was a total of 4.7 G's at 20 cycles resonance under a ½ G load and in the ZZ axes the same G level occurred at 18 cycles resonance at the [redacted] G load. Since the spec calls out a 14 G loading it is quite apparent under a much heavier load than the [redacted] G the supply cassette would fail. Goodell is looking into this situation with the view of reducing the spec requirements. This appears to be a safe move in that the preliminary information on the first Thorad flight showed that the G levels were low and that the resonant frequency was approximately 1[illegible]. The solution to this problem should be available to the Program within two weeks. Meanwhile [redacted] was requested to stop all random vibration tests.

3. [redacted] next made a report on the DFD situation. It is apparent that DFD's are still not arriving at A/P in the number desired and that certain DFD's had to be returned to Boston for rework because of shutter and photo cell problems primarily. DFD number 99 is due back in A/P after rework on the 9th of September and 102 is due in here on the 16th of September. Since [redacted] plans to have his system J-38 in TASC by 12 September (and the DFD's serial numbers 105 and 106 have not yet been shipped to A/P) [redacted] was requested to do all possible to get J-38's SI's to A/P by the 9th of September so that the SI's would go through a complete TASC run. [redacted] team is looking into the photo cell problem to see whether they can recognize a priori photo cell which may fail. [redacted] also indicated that they had some circuit changes now being evaluated for failing lamps; apparently there was too low a voltage being applied to the lamps and it was necessary to do some minor redesign on the circuits. It appears that the new circuit now being investigated will solve this problem and will be incorporated in the next J-1 system to be shipped from [redacted]

4. [redacted] next made his report and covered the subjects of the CW beacon and the dual ejection programmer modifications. In both cases it appears as though there should be no scheduling problems at A/P in accepting the modified units as [redacted] rework schedule is compatible. It was determined that the dual ejection programmer should not be changed on J-36 and J-37 but should be changed on J-38 since the time would be right for this change. The change was made to avoid a remote possibility of premature sequencing of one of the dual electrical paths. [redacted] indicated that he thought he would have the ejection programmers for J-38 here about the 12th of September which would meet A/P's requirements. J-34 and J-35 have the single ejection programmer.

In his report on the J-3 Program, [redacted] indicated that the mock-up was almost complete but that there were certain interface problems particularly in the DISIC water seal fit and the inside fit of the capsule cover which were still being resolved. There was some interference in these areas. These did not pose too great a problem at this time -it was considered to be easily solvable. There were also some minor interference problems in the Boston area which will be taken up shortly with them.

[redacted] was requested to look into the possibility of sending mock-up to A/P for a period of about a week prior to mid-December when the qualification of QR-2 is to begin. [redacted] will report back on this item. It was also

determined that it may be entirely feasible for [redacted] to use the large size A to D converter in the first four J-3 systems since the use of the converters are primarily for the diagnostic tests. [redacted] also indicated that he had lead time problems in obtaining some critical items for the SRV prototype however, most of these have been solved now.

5. [redacted] reported on his integration and check-out effort. A copy of his report is attached. Please note particularly the change in the Design Review schedules, the vibration and temperature data from the first Thorad boost, the performance of the OAS rockets which were fired after the second recovery, J-3 problems, J-3 procurement lead time delay chart, and the chart entitled "Extended Schedule". A/P will furnish a list of critical items with discriptions to the Resident Office if exercise of DX pricrity action through J. McDonald is considered necessary.

6. My evaluation on the overall progress in the J-1 and J-3 Programs is as follows:

A. In the J-1 Program the basic problem is apparent lack of attention to the details of manufacture, assembly and test, the system now that it has become more or less routine. All Managers were requested to take the necessary action to insure that their teams realize the continued importance of the J-1 Program and to insure proper quality of the equipments they deliver or work on.

B. In the J-3 Program the major problems are:

1. The impact of the J-1 Program on the J-3.

2. The procurement long lead time items are becoming a larger problem than had first been expected.

3. The qualification of the recovery programmer, which we always suspected as a problem timewise, seems to be the gating item.

[redacted]

Attachments: 1. [redacted] Report (previously sent [redacted]
2. [redacted] J-3 Report
3. [redacted] J-1 Report
4. [redacted] Report
5. J-1 Quality and Test Deficiencies

cc: [redacted]