10 February 1967

MEMORANDUM TO HEADQUARTERS

TO: [redacted]

INFO: V. Webb, [redacted]

FROM: [redacted]

SUBJECT: PROGRAM MANAGERS' MEETING - 7 FEBRUARY 1967

1. The Corona Program Managers' Meeting convened at 0900 on 7 February 1967. In attendance were Messrs. Madden and [redacted] Schoessler from [redacted] from the Resident Office.

2. [redacted] opened the meeting and discussed the following subjects:

A. Documentation Review. In view of the recent discrepancies between the manufactured hardware and the approved interface drawings and specifications, (some examples, two plugs interchanged on DISIC and the key way on the DISIC take-up module, and [redacted] corresponding connector keyway which were 180 degrees out of phase, and each was 90 degrees dislocated from the approved interface specification), the question was thrown to the group whether a complete documentation review should be made at this time or whether it would be more advisable to solve mismatches of hardware as they occur. After much discussion it was decided not to conduct a complete documentation review at this time, to solve hardware mismatch problems as occurring, but however to initiate some effort on the part of AP Payload Integration Group to set up the mechanics for a more complete documentation review in the future, if considered required. In view of the great amount of previous effort that has taken place to define (and approve) interfaces both mechanical and electrical, it was felt that a complete documentation review at this time would not prove profitable and would set back the Program substantially since personnel could not be spared from their current tasks to conduct this review. Another consideration, of course, was the fact that most of the first article hardware has been made and that any mismatching would be more likely to be caught on mating and testing. However, to attempt to unearth any functional subtleties, AP was requested to start a search of the documentation on a low priority basis.

B. Qual Reports and Failure Mode Analyses. It was requested that the Program Managers pay more attention to completing and submitting reports on items that have been qualified or which have undergone a failure mode analysis so that these

reports could be made available to the Resident Office and the Payload Integration Group for payload systems analysis.

C. Since it was considered that PERT would be effective for only about another two to four months and to provide status on the production models, [redacted] requested the Program Managers to submit a rough copy of line of balance reporting at the next Managers' Meeting. I estimate that we should commence formal line of balance reporting commencing in April, 1967.

D. The plans for the first four J-3 flights, particularly with regard to change of film were discussed. Since these plans have been reviewed in detail with [redacted] only the highlights will be reported here. Essentially, on the tail end of each flight, we plan to splice in about a 1000 feet worth of different type film for testing. Purpose would be to determine the capability of the system to handle different materials, to determine the placement of proper data marking on the films, and to ensure that the filter change device and the film splice detector work. Types of film that we tentatively plan to evaluate are SO 180, SO 121, SO 166 or 340, SO 380 and possibly Kodachrome II and SO 230. The [redacted] representative, Schoessler, indicated that he would need no more than 45 days notice (less than this for SO 121 and 380), but he would want to have detailed discussion with the Resident Office as soon as the necessary negotiations for these tests have been conducted in Washington.

Schoessler also indicated that the ultra sonic splice is now much stronger than on last testing at AP. Possibly within 6 weeks [redacted] will be able to furnish new ultra sonic splices for testing by AP. Schoessler took an action item to forward the report of this ultra sonic splice to the Resident Office with some splices for testing by 1 April 1967. He also suggested that maybe SO 121 should be used on the first split load J-3 experimental flight, since much experience has been gained preparing for J-37(the cancelled color flight). As of this time, no decision has been made to have a split load in the first J-3 flight (CR-1).

E. The subject of whether we should qualify QR-2 to 70% of the qual levels or 100% of the flight levels was discussed. It was determined that the levels of both of these conditions were about the same if credence could be given to the data experienced to date on the first two Thorad flights. As a consequence of this and to reduce metallurgical fatigue, it was decided that AP will conduct the system level sinusoidal vibration of the completely assembled QR-2 in accordance with our general qualification spec (T3-6-002A) except that lateral access testing will be eliminated, longitudinal access vibration testing will be done on a constant octave sweep rate of one minute per octave rather than 3 minutes per octave, and that the longitudinal access frequency range will be limited from 5 cycles per second to 400

cycles per second maximum. All of the testing of the QR-2 system remains unchanged and in accordance with the Qual Test Spec (T3-6-063) for the J-3 system.

F. The new responsibilities of the Resident Office relative to contractural aspects of the Program were reiterated. In essence, the Program Office would approve, monitor, and direct the financial aspects of the Program less contracting. The Contracting Officer would provide funding and budgetting support service and the legalistic aspects of contracting. The Program Office would issue budget calls when guidelines were received from the Contracting Officer, will coordinate with the Contracting Office with regard to funding and budgetting, and the issuance of authorizations to the associate contractors for additional scope or reduction in scope. The Contracting Officer would, of course, continue to be responsible for all legal aspects of contracting, but would, in effect, serve as a support arm to the Program Office. **Recognizing this to be a change in the mode of contracting operations, the Contracting Officer should promulgate a TWX to substantiate this new mode of financial operation.**

G. The subject of telephonic security was discussed. The action that the Resident Office has taken was explained and [redacted] told the group what he was doing in the AP facility to meet the requirements of the [redacted] directive.

H. **The 1 February PERT analysis shows that the critical path is negative 4.4 weeks (previous was - 3.4 weeks) behind scheduled flight readiness date of 24 July 1967 for CR-1. The critical path is in the AP area and specifically the qual test and availability of the slope programmer, the PMU, the exposure control device, and the aft pyro box.**

3. Each of the Program Managers reviewed the status of their Program, The following highlight information was presented:

A. Delivery of the Dual Ejection Programmers has recommenced from [redacted] Four programmers were delivered in the last 10 days. It appears that this problem has been solved.

B. There are sufficient DFD's now at AP to handle systems that will be going into TASC in the near future. [redacted] still has about 6 DFD's to process through the 36 hour vacuum test at [redacted] prior to shipment to AP. These latter DFD's will be back fitted into systems which have already gone through TASC but, for one reason or another, the DFD's installed had to be removed and used elsewhere.

C. The number of critical items remaining to be delivered to AP has been substantially reduced. However, this has been more

because time has caught up with us rather than advance deliveries by vendors, although there has been some of the latter. The major items still causing concern are the PMU, Slope Programmer, and the Switch Programmer.

D. [redacted]s to install an additional thermostat as an override circuit in the event of a failure of the presently installed thermostat. The additional thermostat would cause the take-up heaters to shut off at about 80 °F.

E. All qualification tests for the camera, supply, take-ups, and intermediate roller assembly have been completed accept for (1) the acceleration tests which require the Bedford Environmental Test Facility (these should be commenced within the next two to three weeks) and (2) the loaded shock test for the take-ups which was started on the 6th of February. The CR-1 instruments # 302/303 should be shipped out of Boston on Sunday, 12 February. These instruments should be in good operational condition but will not contain the following items:

(1) The DC DC convertor for the zenon flash unit.

(2) The high efficiency amplifier.

(3) The film splice detector device.

(4) The HO filter change device.

F. In view of the urgency of the flotation tests, the vibration, separation, water impact, and acoustic tests on the engineering test vehicle have been deferred. This should have little impact on first flight of J-3.

4. My evaluation of the Program is as follows:

A. J-1 Program

At present there is no major problems in this Program. GFE seems to be furnished in good condition now, testing is proceeding as per scheduled with some retesting required because of Corona or other malfunctions, DFD's are now available, ejection programmers are meeting requirements, the Factory - to - Pad concept seems to be working out most satisfactorily. One area of concern would be further slippage of flight schedules which may necessitate reordering more forebodies from [redacted]

B. J-3 Program

This Program in my estimation is now about five weeks behind meeting a 24 July flight readiness date. Although

many of the critical procurement problems have been solved, we have not yet entered the qualification phase for QR-2. We have had recent problems wherein the hardware did not match the approved specifications and drawings. We do not expect any subtleties in proper operation of the system. however, this is a possibility.

The camera system for CR-1 (instruments # 302/303) has slipped about one month in arriving at AP because of technical problems at [redacted] (scheduled at AP on 15 January 1967:ECD is 13 February 1967). The #2 DISIC (for QR-2) had to be returned to New York for rework and, at this point, appears to be about 7-10 days late in meeting AP requirements (due to [redacted] on 2/8/67:ECD for [redacted] is now 2/15/67). These slippages along with those of AP plus the key element that QR-2 Qual Phase is just commencing, confidence in CR-1 being ready for flight on schedule is about 50% at this time.

4. The next Program Managers' Meeting was scheduled for 21 March 1967 in order to obtain one Monthly Report complete with financial status. This reduces need for AP and [redacted] to prepare two Monthly Reports - one without financial data.

5. Copies of [redacted] and [redacted] J-1 and J-3 reports have been either forwarded directly to [redacted] or hand-carried by [redacted]

[redacted]

[redacted]