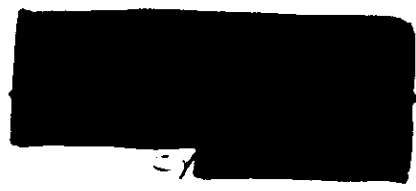


*Program Managers Mtg*



NOV 16 1966  
14000 2 2761

16 November 1966

To:

From:

Subject: **MANAGER'S MEETING ACTION ITEM - PERT SCHEDULE IMPROVEMENT**

1. Late Engineering release and subsequent late purchase order release have been large contributors to the behind schedule position at A/P. There have been several contributors to this situation.
  - a. It was recognized - both by A/P Management and the Customer that the bulk of the J-3 engineering job would have to be done by "people on board" - time phased with the existing J-1 workload. It was not, however, anticipated that experienced engineering personnel would be lost during this period. Consequently, the demands placed on the remaining people have been even greater than anticipated.
  - b. The impact of the rapid expansion of the Viet Nam War and its demand on labor, critical parts and materials was not fully anticipated.
  - c. The result has been a greater than anticipated time to recruit new people to replace unanticipated losses; and, greater than anticipated lead time in procuring critical parts and materials.
  - d. The effect has been longer than scheduled spans to complete critical items of the design and subsequent delays in the release of ABM's and material requisitions. This, added to the time span of extended lead times delayed the start of manufacture - etc. An added effect of the Viet Nam situation has been the non-availability of certain hard to get critical parts such as specific values of high rel., high precision resistors, causing the redesign of networks to achieve the proper resistance values. A good example of this is the J-3 T/M Box.

Declassified and Released by the N R C

In Accordance with E. O. 12958

on NOV 26 1997

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2. Many and continuous actions have been taken and planned to minimize the impact of the Manpower Shortage against the July 1967 first launch date.
  - a. A continuous recruiting program has been underway to partially solve the manpower problem. Success has been less than desired because of the extremely high demand for skilled personnel throughout the nation.
  - b. Critical people in the "ice-box" have been identified to the Customer for expedited clearances.
  - c. An extremely vigorous overtime schedule has been in effect since June in the Engineering organization.
  - d. A high overtime rate will be required in Manufacturing and Test during the next six month period to attempt to compensate for late engineering releases and longer than expected lead times.
  - e. It is planned to transfer a few selected engineers from Engineering Design to the Test organization to offset the high peak load in Test during the component, Black Box and System Qual Period.
  - f. Many personnel shifts have taken place within the Engineering area to alleviate problem areas - i. e., as the vehicle mechanical design work was nearing completion - mechanical designers were transferred to Tool and Mechanical AGE Design.
  
3. Numerous actions have been taken or are underway to minimize the impact of equipment delivery delays experienced to date.
  - a. To improve communications between Production Control and Procurement the procurement function was moved to an area contiguous to Production Control.
  - b. An expediter has been assigned to the Procurement area in Palo Alto to assist in the continuous checks on delivery status of critical parts.
  - c. Advanced release of partial engineering is being used by Manufacturing to start production of critical system elements prior to final release.

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- d. We are continuously reviewing the total schedule status of the J-3 Program to determine ways that schedule delays experienced to date can be minimized. Several actions have been taken to date. (1) Due to late delivery of door framing parts on the DISIC conic the STV will not meet its required manufacturing schedule for delivery to Test. The same tooling must be used to assemble the conic for QR-2. The decision has been made to assemble QR-2 conic first to attempt to maintain the Qual Vehicle schedule. (2) Piece part deliveries for several black boxes do not support the manufacturing schedule. In these cases it is planned to assign the first article delivered to QR-2 and perform black box qualification testing on the second item delivered.

The resulting concurrency of testing outlined above places additional risk on the contractor in an attempt to maintain schedules.

- e. Wherever possible additional Manufacturing is being accomplished at Sunnyvale or with outside vendors, however, security limits the amount of work that can be done outside.
4. Actions outlined above are directed toward minimizing the milestone slips incurred to date. The impact of these delays has shifted and increased the peak loads in Manufacturing and Test. Again we are manpower limited, and all of the delay time may not be made up in the remaining months to the scheduled first launch. Augmentation of the Test organization by transfer of personnel from Engineering in the remaining few months will partially offset this problem. The approved lease of added CTI equipment will permit simultaneous testing of qualification units.
5. I assure you we are fully aware of our schedule problems and are taking those actions necessary to minimize their impact. We are willing to assume the added risk of a certain amount of concurrent (out of planned sequence) qual testing, however, we are not willing to short cut design, manufacture, test or Q. A. practices which will jeopardize confidence in the end product. The delays incurred to date are real. The problems of recovering time lost are difficult. Every endeavor will be made to meet the desired July launch date of CR-1 with a quality product, however, it may not be possible.

  
Manager  
Advanced Projects