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BYE-108293-70
Copy 10 of 14
11 September 1970

MEMORANDUM FOR: Director of Special Projects

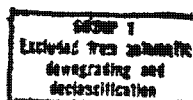
SUBJECT : Photo Reconnaissance Systems Report No. 57

I. CORONAA. Accomplishments

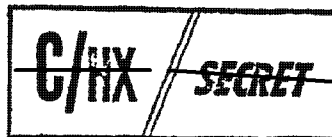
1. The spare and CR-8 dual data signal conditioners (DDSC) have been modified, QR-2's DDSC will probably be modified when it is removed from backup status.
2. The DISIC PMU command box modifications have been completed. The transfer box and the PMU controller modifications are completed through CR-15.
3. DISIC measurements have been completed, and evaluation is in progress.
4. CR-8 was delivered to Bldg. 152 on 10 September.
5. Autronic timers have successfully completed their qualification tests. Two flight timers have been delivered and are in acceptance. These will replace the Haydon timers in all future systems.

B. Problems

There are indications at this time that one of the newly moved collimators is providing less than desirable results. This is being evaluated.



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C. Projected Status

1. CR-13. Demate.
2. QR-2. Backup.
3. CR-14. Block test.
4. CR-15. Functional test.
5. CR-16. Acceptance tests.
6. CR-8. Storage.

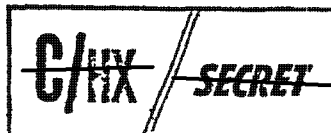
II. HEXAGON

A. General

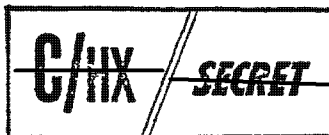
1. The HSSOP Meeting at the WCPO on 3 September concluded with agreement being reached on all but two items which relate to a better calculation of rewind length. SSC is to resolve the questions and provide an ECP with the new changes to the HSSOP Specification in approximately two weeks. At that time all the ECP's to HSSOP will be approved/disapproved, as appropriate. Implementation of improvements being incorporated in the HSSOP Spec will be dependent upon future discussions between the SSPO and [redacted]

2. The vibration tests of an unsupported 66.6" diameter film stack have been completed with no loss of film stack integrity. These results indicate that the elimination of caging devices on the supply is feasible. A vibration test of the fully loaded Engineering Model supply, sans caging devices, is the next phase of the program. Perkin-Elmer is preparing an update of their proposal for this phase.

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3. The film stack being used for the temperature effects test was inadvertently exposed to a high RH after the 40°F test. An increase in core pressure indicated that the film had absorbed water. The stack has been reequilibrated to 48% RH and the core pressure has returned to the original values. Perkin-Elmer is to remove 5,000 feet of material and inspect for emulsion sticking. If none is evident, it will be assumed that the film has not been affected and a high temperature (100°F) test will be conducted.

4. The Hqs. comments to the SSC revised Quality Assurance Plan are in typing. The Quality Assurance Plan must be revised prior to inclusion as a reference in the follow-on contract work statement.

5. The 9-10 September exercises of the TUNITY Software at the STC were surprisingly successful. Although the results have not been fully evaluated, no major problems are evident.

6. The 9-10 September meeting, held with SP-7, Hqs., and WCPO on inputs to the HEXAGON Reports Control Manual had not major problems. A number of minor problem areas were worked out.

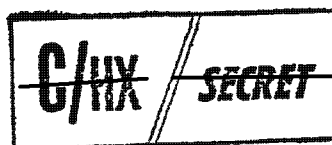
7. The West Coast computer facility now operating, using version 18.6 of the 360 operating system. A seminar was conducted for the 13 people that will be using the CALCOMP system to familiarize them with the various plotting software. A set of programs is being put together to be used as a benchmark test for compatibility with the Hqs. computer center. October 1 is target date for completion of this task.

8. On 9 September a briefing was presented to the Land Panel on the status of the acceptance testing of the First Flight Sensor Subsystem. The SPO (Col. Buzard) also presented the status of testing and system qualification of SDV-III and the completion of launch facilities.

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9. A schedule was set up with SSC for completing the items required to enter into negotiations. This included revision of the Midsection CEI Specification, negotiation of an agreed-upon method of determining in orbit performance for fee purposes, and revision of the Perkin-Elmer Work Statement to reflect additional Government requirements.

10. Arrangements were made for an FBI investigator to investigate suspected sabotage occurring in the Danbury facility. The investigator is now in the process of questioning personnel involved in working in the general area in which the sabotage occurred. The investigation has disclosed that the actual damage may have been greater than originally determined and that some cases of damage had been discovered but not been disclosed to the management.

11. Discussions were held between Gen. King, Mr. Crowley, Col. Buzard, and Mr. Patterson on the schedule for HEXAGON flights. This review was held to discuss the response to a TWX received from the NRO. It was the consensus of the group that the 17 December launch date could not be met and that the most likely date would be around mid-February to mid-March. It was further the consensus that maximum effort should be applied in getting the development model and the first flight model through test in preparation for the first flight. No decision was reached regarding the use of CORONA's to supplement HEXAGON launches in order to provide a greater assembly and test span on the West Coast and an early availability of a backup vehicle. This area needs to be resolved, as it will effect the expenditure of manpower during Fiscal Year 1971 and 1972.

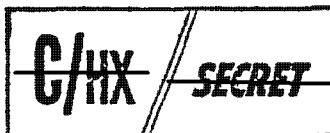
B. Model Status

Development Model (SDV-III)

Horizontal baseline testing began on 9 September, following the replacement of the "A" P-servo box and the "A" and "B" platen drive cables. Initial operation revealed no system anomalies. Preparations are underway for continuation of horizontal baseline operations.

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SV-1 (S/N 003)

Midsection

P.E. has completed the in-air tests in Chamber "A". The photo data is being evaluated. Electrical adjustments to minimize the mean in-track and cross-track smear will be made, and some of the in-air tests will be repeated. Assuming no delays, in-vacuum chamber testing will start on 13 September. There are approximately 56,000 feet of film left on the "A" side and 85,000 feet on the "B" side. P.E. is forecasting a 29 September ship with no allowance for problems. There were some take-up AGE steerer tracking problems this week. The problems were traced to misaligned rollers in the AGE articulator. The rollers were reshimed, and testing is continuing.

Forward Section

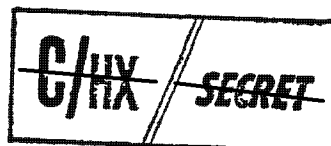
Preparations are underway for the functional testing of RV-4. This activity has been delayed due to a damaged articulator-steerer unit and a 4 RVTS electrical problem. The latter appears to result from an instrumentation ground loop and is expected to be resolved today. RV-5 was returned to MWC on 8 September for TUA removal and return to RCA for rework and repair.

SV-2 (S/N 002)

The supply has been reloaded, and the crossover stops have been installed. The supply is being installed in the midsection today. Fine tension sensor rollers, with both acceptable runout and low mass unbalance, were installed in platen "A". The metering capstan error was reduced to 0.04 inches per second as a result. The above is bench test data. P.E. has not yet been successful in putting together a camera with low metering capstan errors. The "B" side metering capstan error is 0.08 inches per second.

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III. ADMINISTRATIVE

A. Meetings Requiring Participation of Headquarters Personnel

<u>Date</u>	<u>Subject</u>	<u>Attendees</u>
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P. E.

17 Sept	S&M IFWG	
17 Sept	Meetings of the Servo Group and Tracking/Alignment Group of the Special Task Force	

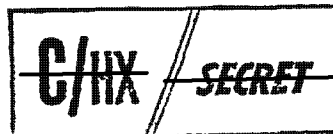
HQS

14 Sept	CEI Spec Review		Kohler
16 Sept	Monthly Technical Review	Staff	
17 Sept	MACFACT Negotiations	Patterson, Burks,	
18 Sept	Incentive Determination for Follow-On (in-house review)	Patterson,	
			Burks

B. Training

1. [] is attending the Mid-Career Executive Development Course through 9 October.
2. [] will attend the George Washington University on a full time basis starting 21 September to complete his EE Bachelor Degree.
3. [] will join PRS on approximately 1 October, depending on an agreeable transfer date with NPIC. He will be initially assigned to [] group replacing []

TPA/PRS/OSP



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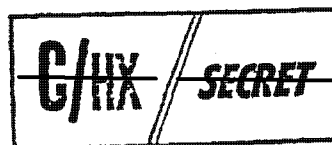


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