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BYE-107663-70

Copy 10 of 14

2 July 1970

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 47

I. CORONAA. Accomplishments

1. CR-12. Flight preps are continuing for the 22 July launch.
2. CR-12. Resolution block test has been completed.
3. A/P move. SRV weight-and-balance equipment has been moved and should be installed during the next two weeks. Additional AGE will be forwarded during this coming week. Building 152 non-clean areas will be accepted by the A/P contractor during the next reporting period. During the week beginning 20 July, A/P personnel will begin transfer to Building 156.

B. Problems

1. Ripple filter tests are still in progress.
2. CR-12 forward-looking instrument required a star wheel assembly replacement. The new assembly has been installed, tested and accepted.

C. Future Activities

Mission 1111 (CR-12) launch 22 July 1970.

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**D. Projected Status**

- 1. CR-12. Flight preps.
- 2. CR-13. Storage preps.
- 3. QR-2. Storage preps.
- 4. CR-14. Temporary storage.
- 5. CR-15. Storage.

**II. HEXAGON**

**A. General**

1. The last two P-2 take-ups were bought off by the Project Office. These units have had several workmanship errors which were resolved. There are now four take-ups sitting on the floor at McDonnell waiting to be used.

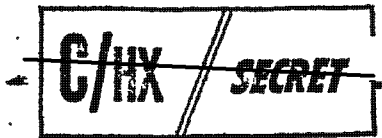
2. Eastman Kodak is investigating the low core pressure problem and will advise the Project Office as soon as they find the cause. To reiterate the problem -- the winding parameters of 13 lb. builder roller force and the 5 lb. film tension were selected as the result of an extensive spooling test program which indicated this would produce core pressures of 430 psi + 180 psi with a 95% confidence. During the week of 22 June, three windings were made (with 1414 film) and core pressure measurements taken which showed pressures of 75, 35, and 95 psi. Another roll was wound using SO-380 film and showed a pressure of 92 psi. As of this writing, the Kodak Park team is reviewing all aspects of the problem in detail, but no reason for this anomaly has as yet been found.

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3. A meeting was held at P.E. on 1 July to review their cost and schedule data for modifying the "5th versamat" room to receive the 1811 color processor. Their preliminary ROM figures were \$30,000 and twelve weeks after go-ahead. Their firm proposal is expected at Headquarters in two weeks. The ground rules for this task are that the equipment will be provided as GFE, and P.E. will modify the room and be responsible for the installation. EK will provide consultation services for installation and will conduct a training and safety course for P.E. Spare parts will be provided by EK.

4. P.E. personnel, through informal discussions, have indicated that the Type 1414 film appears to be performing much better than SO-380 in the film flatness tests.

5. EK delivered 26,000 ft. of Type 1414 and 2,000 ft. of SO-255 to P.E. this week. No more deliveries to P.E. are scheduled until 1 August.

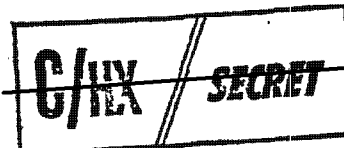
6. A meeting was held at EK on 25 June to educate P.E. on EK's experience with slack boxes. The meeting was somewhat productive in that EK put forth some detailed considerations that P.E. had not thought of. EK was very cooperative and quite open in the discussions. For the most part, EK's and P.E. applications are completely different and only a few principles were common. P.E. will continue with their experimentation for the remainder of the present study phase.

**B. Development Model (SDV-3)**

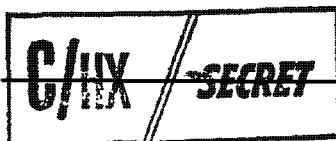
1. The aft section test reruns using the midsection SBA and sensor subsystem electrical simulators were completed and the aft/mid/forward section cabling was connected. The engineering buy-off test for the aft section (using the simulators) was held on 30 June. The pre-test certification meeting for the SV payload test (SS creep and vertical) was also held on 30 June. The board certified the vehicle was in condition to proceed with testing, pending the satisfactory completion of the VGP (Vehicle Ground Point) test.

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2. The VGP test conducted during the evening of 30 June revealed two problems - one, was a short in the [redacted] (which will not affect testing), and another in the sensor subsystem. The problem in the SS was one of not enough isolation between the 28 volt return and structure. The SS problem was traced to take-ups #2 and #3 and the PDS (Power Distribution System). The PDS is being sent to PE Aerospace, and the heat shields and cannisters are being removed from SDV-III to allow for troubleshooting of the take-ups. This problem will cause at least a 3-day schedule slip.

3. It should be noted that this slip could have been prevented had P.E. agreed to conduct the interface ground checks proposed at the M/S engineering buy-off. P.E.'s comments to the interface ground checks, as contained in paragraph two of their TWX 6511, are as follows:

"This problem was uncovered during acceptance tests at SSC which SSC believes will uncover any problems of this nature and SSC does not, repeat, does not plan to conduct any additional checks on interface grounds."

**C. Flight Unit #1**

1. Acceptance testing at 70°F has been started. Testing has gone relatively slowly due to a number of problems. The take-up simulator has been the cause of a couple of emergency shutdowns. Problems have also been encountered with the command tape. If no further problems are encountered, 70°F testing should be completed on 3 July. The 47°F tests should start on 7 July.

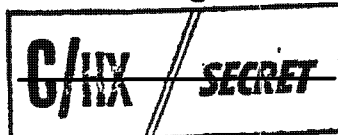
2. The R&I of RV 5 take-up is scheduled to begin on 7 July.

**D. Flight Unit #2**

1. Metering capstan problems are being investigated through a series of tests using breakout boxes to obtain special data on the capstans. These tests are scheduled for completion on 6 July. Following these tests, the smear tests using the small collimators in

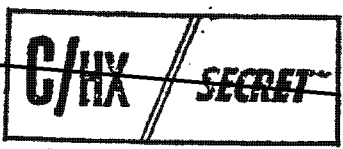
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Ready Room "B" will be conducted. The scheduled completion date is 8 July 1970. The metering capstan problem is a generic one, having occurred also in the Development Model and P-1.

2. The following table indicates the P-2 metering capstan summed error, pre-and-post-TCA vibration at the three Vx/h settings:

<u>A Side</u>		
<u>Vx/h</u>	<u>Pre</u>	<u>Post</u>
.018 rad/sec	.08 psi	.08 psi
.036 rad/sec	.08 psi	.10 psi
.054 rad/sec	.08 psi	.12 psi

<u>B Side</u>	
<u>Pre</u>	<u>Post</u>
.12 psi	.06 to .10 psi
.2 psi	.16 psi
.2 psi	.2 psi

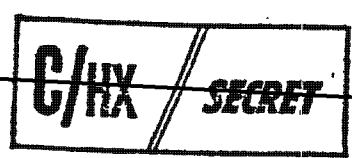
The maximum spec value for m. c. summed error is 0.35 ips.

3. Following the above tests, the TCA will be installed in the midsection. It appears that the earliest that Ready Room "A" tests can begin will be 15 July. However, P.E. has not established a new schedule because of uncertainty of the m. c. tests.

**E. Flight Model #3**

Two camera assembly build-up is continuing. Early emphasis is being placed on thorough platen and metering capstan tests, conducted in the clean room before Ready Room "B".

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**III. Meetings Requiring Participation of Headquarters Personnel**

<u>Date</u>	<u>Subject</u>	<u>Attendees</u>
<u>P.E.</u>		
7-8 July	TCA P-1 FACI Meeting	[Redacted] Kohler, Burks
9-10 July	MMP Data Review	[Redacted]
<u>SBAC</u>		
7-8 July	A&T IFWG	[Redacted]
8-9 July	S&M IFWG	
9 July	Schedule IFWG	
10 July	Ops IFWG	
<u>Westover AFB</u>		
9-13 July	P-1 Data Reduction Meeting	Kohler, Burks [Redacted] (7-13 July)
<u>A/P</u>		
9-10 July	Final Review of A/P Documentation Retention	[Redacted]
<u>DRC</u>		
8 July	DRC Program Review	[Redacted]
<u>Hqs.</u>		
8 July	Integrated Logistics Study	[Redacted]

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[redacted] will EOD on 6 July and will remain at Hqs. during that week prior to reporting to NEPO on 13 July.

15/

[redacted]

**AD/PRS/OSP**

**Distribution:**

- Cy 1 - D/OSP
- Cy 2 - DD/OSP
- Cy 3 - D/PRS/OSP
- Cy 4 - EO/OSP
- Cy 5 - C/D&AD/OSP
- Cy 6 - CB/OSP
- Cy 7 - C/PAD/OSP
- Cy 8 - C/SB/OSP
- Cy 9 - C/SS/OSP
- Cy 10 - RB/OSP
- Cy 11 - PRS/File
- Cy 12 - PRS/Chrono
- Cy 13 - Mr. [redacted]
- Cy 14 - Mr. [redacted]

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