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BYE-110383-71

Copy 10 of 14

20 August 1971

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 106

I. CORONAA. Accomplishments

1. CR-15 (Mission 1115) flight assembly is continuing on schedule for planned launch on 8 September 1971. The filter and slits have been installed and are being verified. The DISIC readiness checks were completed. The orbit assignment is as follows: 75 degree inclination, 85 NM perigee, launch window 2130-2210Z, 8 September 1971. Software preparations for the selected slits is in progress. The nominal camera operations data was forwarded to the SOC for editing. No software problems are anticipated.

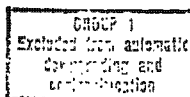
2. CR-8 is in storage preps. The system is holding for slope programmer.

B. Problems

No major problems.

C. Projected Status

1. CR-15. Flight preps.
2. CR-16. R-25 backup.
3. CR-8. Storage preps.

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SUBJECT: Photo Reconnaissance Systems Report No. 106**II. HEXAGON****A. General**

1. A meeting was held at Perkin-Elmer on 18 August to review the results of the color film testing to date. It appears that:

a. Increased pneumatic pressure through the air bars will be required in order that this product be transported through the system without scraping off the 2E filter layer.

b. Additional testing should be done on the E Model to determine the behavior of mixed rolls consisting of alternate black-and-white, then color.

c. Coordination between the Danbury test personnel and the west coast test personnel is necessary prior to the Development Model color testing. This testing is scheduled for late October.

d. PE definitely intends to test color film in SV-6. The Project Office had not realized the firm intentions to do this prior to this meeting. Consequently, some schedule delay in obtaining color film may occur, since the EK inventory of SO-255 has been exhausted. An order for color film has been placed verbally with EK and they have informally advised that there is a "fighting chance" of getting it.

2. It appears that a thousand feet of the color film may be transportable without any noticeable emulsion build-up. This was evident from inspection of the E Model air bars. A finding from the E Model tests is that the drive capstan summed error signal becomes quite disturbed, particularly at low velocities, after about 800 to 1,000 feet of color film. As a result of the

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meeting, PE was urged to define the test film roll configuration needed for SV-6 and to be prepared to brief Headquarters and the west coast on the test results. No color film requirements have been generated for P-7 and up, and P-7 stacks are already in-house, so this problem will be addressed immediately.

3. Ten DD-250's for spares were signed this week.

4. PE technical briefings were presented to D/SSPO and DD/SSPO concerning various PE ECP/CCR and other proposal activities. The Headquarters plan to process HEXAGON test film at Westover and the technical problems with the follow-on (7-12) optical bars were discussed specifically. Further discussions on these subjects will be held at Headquarters the week of 23 August.

B. Advanced Planning & Management Support Activities

1. A meeting with DD/OSP, DC/D&AD, and representatives of the "H" Project Office was held to review and discuss the status of the Block II effort. New and revised approaches, scope, and other considerations for inclusion in the study efforts were discussed. Final decisions were held in abeyance pending a review of the Horizons film development status, as well as the derivation of additional information pertaining to NRT data link requirements and capabilities.

2. A new record system is being developed to provide more comprehensive records and to permit more rapid analysis of contractor engineering change proposals, contract change requests, and Headquarters contract change notices.

C. Operations and Systems Analysis

1. The pre-3.10 (Start of Acceptance) meeting for SN-006 to be held on 20 August 1971 was canceled by the contractor. The reason for the cancellation was unexplained performance anomalies

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which may require additional system work before acceptance tests can be initiated. Camera B has a very poor focal plane tilt, evidencing a 35 micron total tilt across the field. The platen was shimmed 20 microns, but additional tilting is clearly required or a mean defocus, on one side, of 15-20 microns will result. In addition, the high mean in-track smear problem at the 55° collimator is now evidenced at the 45° collimator. The total in-track smear "ramp" on Camera B is approximately 0.28 in/sec, the worst of any camera system with the exception of SN-003.

2. Camera A evidences no significant performance problems with the exception of the recurring cross-track smear at the 45° collimator position. SN-006 is slightly worse in this regard than the last two systems evidencing a mean cross-track smear of approximately 0.12 in/sec. Review of the soft-vac tests will be held this week end.

D. West Coast Project Office

A meeting was held with [] for informal discussion of working relationships. It was agreed that [] should dictate bucket transfer times (transfer of film take-up from one RV to the next RV) based on intelligence requirements rather than artificial constraints from SPO. WCPO took several action items, including formulation of minimum times for transfer sequences, determination of ground rules for rewind in SV-2, and review of need for 40 hour weather forecasts for engineering operations.

E. Model Status

1. SDV-III (Development Model)

A failure in the supply brushless motor electronics (BME) on the "A" side delayed the masked smear tests. The BME has been replaced with an AVE spare, and the test supply is again

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being uploaded. The mask tests will be completed by 23 August. The system will be used for an RV EMI test in the period of 25-27 August.

2. SV-2 (MS SN-002)

The system is in the A-1 Chamber undergoing preparations for a short A-1 test to check out LMSC equipment. Limited camera operations are planned for 22 and 24 August. During the [redacted] equipment. A firm return date for RV's 1, 2, and 3 has yet to be established. The SPO plan is to have RV's delivered to SVIC by 14 September.

3. SV-3 (MS SN-004)

The LMSC build-up of the aft section continues to be plagued with minor schedule perturbations which have delayed the scheduled mate date of 24 August. Now expect mate to occur on 3 September. No technical problems are known to exist other than the present ECS and ARM modules are not flight quality. Retrofit of these modules is scheduled to occur prior to vertical testing. Tentative schedule is to ship RV's 1, 2, and 3 to McDonnell Douglas approximately 1 November.

4. SV-4 (MS SN-005)

PE R&I of the SV-4 midsection is scheduled to begin on Monday, 23 August. R&I of the forward section kit continues. At this time the steerer and No. 1 articulator, as well as all cables have been inspected. The forward section structure was delivered by LMSC on 16 August. PE QA inspection revealed several discrepant items which LMSC will correct ASAP.

5. SV-5 (MS SN-006)

The system has completed the first series of soft vacuum tests. The film is being processed and evaluated. The

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electromagnetic preliminary data appeared satisfactory. An informal pre-3.10 review was held on 20 August. The second soft vacuum tests are scheduled to be run 21 August. It is probable that the system will have to be reloaded with film prior to the acceptance test run. The "B" side has 37,000 feet remaining. A loaded supply which can be used for this purpose is at PE and Kodak is in the process of finishing two test rolls which will be sent to PE and will probably go in SV-6.

6. SV-6 (MS SN-007)

SV-6 is in the alignment phase of the TCA build cycle.

III. Meetings Requiring Participation of Headquarters Personnel

<u>Date</u>	<u>Subject</u>	<u>Attendees</u>
<u>HQ</u>		
TBD	Block II Technical Discussions	Patterson, [] []
26-27 Aug	Negotiate Contract Changes	[] Staff
27 Aug	Program Discussions with PE Management	Patterson, [] []
<u>PE</u>		
25-26 Aug	Spares Management Meeting	[]

[]
AD/PRS/OSP

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