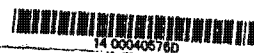


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24 September 1971

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 111

I. CORONAA. Accomplishments

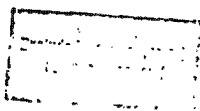
CR-15 (Mission 1115) A SRV was successfully recovered in air on 17 September 1971. The material was off-loaded at LMSC and shipped to EK for processing. The Performance Evaluation Team (PET) at EK has indicated an MIP rating of 120. This is the highest rating to be expected from this particular system and surpasses the pre-flight prediction.

B. Problems

Two instances of non-start of the V/h programmer occurred during the mission to date, on Revs 120 and 192. In neither instance were these on active revs, so there was no operational impact. The programmer again restarted following each anomaly. Backup manual V/h ramp control has been set up to circumvent any more occurrences of a more major nature.

C. Projected Status

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

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II. HEXAGONA. General

Tests on the Engineering Model using a mixed roll of SO-255/1414 were conducted this week. Essentially, alternate 2,000 ft. lengths of the two films were transported through the system. For the first time, almost no powdering of the 2E layer was observed. This is probably attributable to the fact that these are the first AVE air bars the film has gone over. The test bed and abbreviated film path air bars are slightly different. Tracking with the SO-255 was much worse than with 1414--this was evident when splices were encountered and the film type changed. The last 1,000 feet of SO-255 will be run at increased pressure (7 psi vs. 3.5 psi) to determine if this improves the tracking.

B. Advanced Planning & Management Support Activities

1. The Advanced HEXAGON work statement has been rewritten corollary with guidance derived from a recent major policy decision. The draft is expected to be available for internal OSP review early next week. Schedules and briefings for coordination with NRO and SPO are being developed.

2. Preparation of the DD/S&T Quarterly Review material and the NRO Quarterly Progress Report is in process.

3. An additional fourteen DD-250's were processed this week. To date approximately 80% of the Production and Facility contracts excluding spares has been contractually delivered.

C. Engineering

Retrofit of SV-3 with the O²A² box has been rescheduled to occur prior to Chamber A-2 tests, vice prior to acoustics test. This reshuffle was based solely upon a necessity to determine that the final design, as now being tested on SN-006

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at Danbury, properly functions as intended, including cable modifications, etc., before starting retrofit on a flight vehicle. Depending upon availability of production boxes, it is now planned to keep the box being tested with SN-006 on 006 and retrofit SV-3 and up with new boxes.

D. Operations & Systems Analysis

1. The publication of the 1201 Final PFA Report is on schedule and is due to be issued by the end of September. The majority of the week of 13 September was spent in rewriting and team review of the report and finalizing the conclusions and recommendations. Further review of the final text prior to publication is underway this week.

2. OSA has evaluated the orbit selection for Mission 1202 from a performance point of view and has recommended to D/PRS that we impose no constraints on the 1202 orbit selection.

3. Color Task Force. KH-8 Mission 4332 flew approximately 500 feet of SO-255 color film as part of the continuing evaluation of the value of color photography. The resolution of the color acquired was the best yet achieved with the KH-8 system. The best black-and-white resolution on and the best color was 12 inches.

4. The Quarterly Meeting of the CCB is being held at AFSPPF on 22-23 September. Reviews of both AFSPPF and EK programs are scheduled.

E. Model Status

1. SDV-III (Development Model)

Preparation for acoustic tests is continuing.

2. SV-2 (MS SN-002)

All SV-2 RV's have been returned from McDonnell Douglas with the parachute modifications. Modifications are in process

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to the A-2 Chamber for installation of collimators at 37 degrees scan and 2 degrees field. The schedule was set back by several days due to a measurement error discovered on a chamber drawing. A-2 work has been placed on a 24-hour-per-day basis to recover schedule, but it is anticipated that the start of collimation tests on SV-2 will be delayed by approximately one day.

The collimators on the "A" side are being focused at infinity rather than 120 NM for the SV-2 retest in an attempt to sort out the defocus problem experienced on the A camera on Mission 1201-1.

3. SV-3 (MS SN-004)

The vertical and horizontal baselines have been completed. At the initiation of the vertical run, an ESD was generated because of an over tension condition on the input tension sensor on side B. Blemishes and stress patterns in the film at the film exit vestibule seal door locations indicate that the film adhered to the seal door material. Film samples have been sent to PE/Danbury for analysis of the blemishes. If it is confirmed that the film did adhere to the seal door the following actions will be considered:

- a. Remove and replace SV-3 seal door and determine if the potting compound and seal door material meet specifications.
- b. Evaluate the need to limit the time that a system can set with the seal door closed (SV-3 was idle for 70 days).

4. SV-4 (MS SN-005)

R&I of RV's 1, 2, and 3 has been completed. Each RV has a simulated parachute. Articulator No. 3 was installed. Supply loading is planned to be complete on 24 September. The midsection has been worked on by LMSC all week for cable insulation installation.

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5. SV-5 (MS SN-006)

The Contractor has decided not to hold a formal acceptance meeting for SN-006 on 24 September. This decision was based upon invalid LSFS calibration at temperature on the aft camera. A Chamber "A" retest at all three temperatures is planned to obtain the calibration data. It is the government's intent, however, to maximize the benefits of this retest by requiring additional testing of the O²A² box, the Contractor-proposed electrostatic discharge fix, and continued investigation of the performance disparity on the aft camera between the .3 and .6 inch slit.

6. SV-6 (MS SN-007)

SN-007 completed midsection buildup with the installation of the supply TCA in the forward section simulator. It is currently being readied for initial engineering test runs, consisting primarily of initial tracking tests.

III. Meetings Requiring Participation of Headquarters Personnel

<u>Date</u>	<u>Subject</u>	<u>Attendees</u>
<u>HQ</u>		
27 Sept	ULE Glass Discussions with PE	
28 Sept	Briefing to Senior Seminar Group	
<u>PE</u>		
29 Sept	EM Photo Correlation Discussions	

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IV. Personnel

1. [redacted] reported for duty at the West Coast Project Office on 21 September 1971. He is assigned to the Operations section replacing [redacted]

2. [redacted] will be in the hospital for approximately one week due to a possible ruptured disc.

3. Mr. Kohler will be attending the Midcareer Executive Development Course from 26 September through 5 November 1971

[redacted]

AD/PRS/OSP

Distribution:

- Cy 1 - D/OSP
- Cy 2 - DD/OSP
- Cy 3 - D/PRS/OSP
- Cy 4 - SA/IS/OSP
- Cy 5 - C/CS/OSP
- Cy 6 - C/PAD/OSP
- Cy 7 - AC/SB/OSP
- Cy 8 - C/SS/OSP
- Cy 9 - C/PPBB/OSP
- Cy 10 - DC/D&AD/OSP
- Cy 11 - RB/OSP
- Cy 12 - PRS file
- Cy 13 - PRS chrono
- Cy 14 - NEPO
- Cy 15 - WCPO

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