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BYE-107756-71
Copy 10 of 14
19 February 1971

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 80

I. CORONA

A. Accomplishments

1. CR-13 (Mission 1113) was launched on 17 February 1971 at 2001Z.

[redacted]

B. Problems

CR-13's booster main engine appeared to malfunction followed by a self-destruct at approximately lift-off plus 30 seconds. An Air Force Board of Inquiry is in progress at VAFB.

C. Projected Status

1. CR-14. Launch preps.
2. CR-15. Back-up preps.
3. CR-16. Block preps.
4. CR-8. Subsystem acceptance.

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II. HEXAGON

A. General

1. WCPO analysis of the SV-1 orbit study case indicates significant gaps in coverage during the first two buckets and recommended to SPO and STC a period change that would improve coverage. The Operations IFWG has "approved" the study case for SV-1; however [redacted] plans to rerun some orbit cases to see if improvement is feasible in time for SV-1.

2. The planning for on-orbit contingencies relating to SS operations is proceeding in a satisfactory manner.

3. TRW personnel successfully checked out the initial "HOPE" versions on the WCPO computer. Copies of the program decks were left with WCPO personnel to allow "HOPE" support of A-2 Chamber testing on SV-1.

3. Recent film tracking difficulties at both PE and LMSC resulted in a meeting at PE with EK on 18 February. The data presented by PE gives some correlation between takeup mis-tracking and film taper. Whether this is a new problem caused by an increase in film taper or an old one which had been masked by more severe film tracking problems is not determinable. EK agreed to undertake two actions to alleviate and/or explain this anomaly: (1) data on several Mylar base runs will be compared to determine if the taper has changed recently, (2) samples from the head and tail of segments of film will be measured for taper, and this information will be used to determine maximum lengths between splices, with reversals of taper direction between splices, in constructing two new supplies for the flight load for SV-1.

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4. A spares data package technical certification was held at PE on the uncage command and control box (8A1), the remainder of the auxiliary takeup, the takeup rollers, and the power bus module. The packages were satisfactory except for two open items on the 8A1--an integrated circuit test report anomaly and the lack of system reverification requirements for this box.

5. PE's film core design for the systems 7 through 12 is incompatible with the Kodak film spooling equipment. Kodak met with PE on 18 February to discuss this matter. The spooling machine mandril is affected, and EK is now assessing the problem and will determine whether new ones will be required or if the existing ones can be modified.

B. Model Status

1. Development Model (SDV-III)

During this reporting period, the AVE system umbilical drop tests were completed. The phase I VTS compatibility test has also been successfully completed. Phase II SCF-VTS compatibility test has been initiated with the midsection portion beginning on 18 February.

2. SV-1 (SN-003)

SV-1 is undergoing A-2 Chamber tests. The in-air portion of this activity has been completed, and data evaluation began on 18 February.

3. SV-2 (SN-002)

a. Forward Section

Buildup activity has halted awaiting the receipt of builder roller retrofit parts.

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Functional testing of the system will resume immediately after the accomplishment of these mods. At present RV/TUA's have been installed in F/S Bays 4, 3, and 2. TUA S/N 017 scheduled for Bay 1 is undergoing R&I.

b. Midsection

Chamber "A" acceptance tests at 70°F are being run today. The chamber will be repressurized, and the film removed tomorrow (20 February).

4. SV-3 (SN-004)

a. The 2A3 box test program has been completed and the system now has its final complement of electronics of the proper configuration except for the 16A1 (due in on 23 February) which is not critical for the MFN 3.09 tests. MFN 3.09 is scheduled to begin 23 February.

b. The simulated takeup has been replaced with the EM-1 takeup.

c. The "A" side has successfully completed the MFN 3.05 test matrix. The "B" side has experienced a film shift problem which seems to be velocity sensitive. The looper is suspect (at the housing attachment), and this will be verified and hopefully corrected by 20 February.

d. A special engineering test will be conducted on 20 February with the crossover to determine the effect of adding rollers to the crossover/film drive interface.

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III. Meetings Requiring Participation of Headquarters Personnel

Date	Subject	Attendees
HQ		
24-26 Feb	Follow-on Negotiations	
25 Feb	Qual Status	Staff, SETS
PE		
23 Feb	Electronic Qual Review	
23 Feb	Performance Review	Patterson Kohler,
Westover AFB		
22-26 Feb	SN-002 Performance Data Review	Kohler,
WCPO		
23-25 Feb	A-2 Test Data Review	

DONALD W. PATTERSON
D/PRS/OSP

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