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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. CORONA

A. Accomplishments

1. CR-12. Flight preps are continuing for the 22 July launch.

2. CR-13. 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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SUBJECT: Photo Reconnaissance Systems Report No. 47

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 pretest 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:

A Side

Vx/h	Pre	Post
.018 rad/sec	.08 psi	.08 psi
.036 rad/sec	.08 psi	.10 psi
.054 rad/sec	.08 psi	.12 psi

B Side

Pre	Post
.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

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

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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.

[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 - [redacted]
Cy 14 - [redacted]

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21 August 1970

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 54

I. CORONA

A. Accomplishments

1. Evaluation of the second half of Mission 1111 (CR-12) indicates that the average image quality is good and comparable to Mission 1111-1.

2. Facility move is essentially completed and no further reporting will be made.

3. CR-13 dual data signal conditioners (DDSC) improvement modifications are complete. DDSC improvement modifications for the remaining systems will be completed within ten days.

4. QR-2 has been removed from flight prep status and is currently in backup preps. Testing of the DISIC/PMU and timer modifications is in process.

5. Mission operations software is being checked for use on version 18 of the computer operating system. No problems have been encountered and none are anticipated.

B. Problems

None.

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SUBJECT: Photo Reconnaissance Systems Report No. 54

C. Future Activities

Mission 1111 PET Meeting is scheduled for the 25th and 26th of August at NPIC.

D. Projected Status

1. CR-13. Block preps.

2. QR-2. Backup preps.

3. CR-14. Pre-storage preps.

4. CR-15. DISIC tracking preps.

5. CR-16. Scan heads modifications being incorporated. Due in 20 August 1970.

6. CR-8. Clean up and shipping preps at Itek. In test for correction of corona in one instrument.

II. HEXAGON

A. General

1. The FIDAP (sync flash analysis) Program was used to evaluate flight model data from the Westover microcomparator. The FIDAP Program achieved operational status at Westover and it is anticipated that future FIDAP runs will be done at Westover.

2. Discussions were held with SETS regarding "HOPE" (MACFACT-2) software methods. SETS plans to start data base management planning for "HOPE" the week of 28 August.

3. MACFACT runs were made in support of MACFACT discussions to be held at Westover on 21 August.

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SUBJECT: Photo Reconnaissance Systems Report No. 54

4. Messrs. Verjinski and Melville met with Jack Taylor from Calcomp Corp. A proprietary software agreement was signed in connection with the software package to be installed in the computer facility. A software seminar is to be conducted by Calcomp representative 8-9 September for interested programmers. Delivery date for the Calcomp plotter was established at 15 September.

[redacted]
tic support details were also discussed.

6. A briefing was held for WCPO personnel by L. Jacobs (LMSC) concerning the HTP software package to be installed at Headquarters by his programming group.

7. Installation of a two-way intercom system between both SSTC's and the computer facility was completed. In connection with the intercom installation, the outside door to the computer facility will be sealed during all hours.

8. Failure analysis of the optical bar servo (1A1) box qual vibration failure has identified an unacceptable potting material that is being used in a number of electronic boxes. The material is being used to pot electrical filters purchased by RadInc from RFI. Perkin-Elmer has decidec to retrofit the boxes with the suspect potting material. There are 10 O. B. servo (1A1) boxes, 9 platen recycle servo (2A1) boxes, 5 metering capstan servo (2A3) boxes, and 7 supply servo (6A2) boxes, a total of 48. There are boxes built which do not have the bad material for all of the above boxes. It would appear, however, that some of the boxes will have to be field retrofitted on S/N 003.

9. The RadInc Proposal for a modified servo system has been received at Perkin-Elmer. The other design improvement studies currently being pursued at Perkin-Elmer (i.e., Mechanical Super Looper,

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Slack Box, Improved Emergency Shutdown) will affect the RadInc Proposal in that the approach to the supply and take-up servos and the sequencer is invalidated. A contract to RadInc for this study, if funded, will reflect these changes. The initial phase of the proposal is to define whether the advertised parts count reduction is a result of changing the servo concept or simply due to combining box function and power supplies. Perkin-Elmer will submit a proposal for the entire P-13 concept which incorporates the Radinc Proposal by 21 September.

10. The review of the QA Manual has been completed except for receipt of the DCASR comments which are expected next week. Significant deficiencies include lack of consideration for computer software and sensor hardware compatibility controls. Reliability responsibilities are insufficiently stressed also.

11. The AVE qualification program status is being reviewed and updated to provide the latest status (Headquarters position) prior to the FACI of S/N 003 which is now scheduled for 9 and 10 September. Inadequate SSC response to action items assigned at Qualification Certification meetings has delayed preliminary certification of the optical bar and the pneumatics. Qualification Certification meetings for the compartment electronic boxes have not yet been scheduled by SSC.

12. AC's quote for the SSTC spares is expected by P.E. next week. It will probably be about $450 to 500K. We have approved $250K so far on these spares to allow long lead procurement. Delivery is expected to be completed in November.

13. Availability of complete drawings and specifications for the 4RV Test Station has delayed consideration of spares procurement for that station. It is now estimated that the necessary drawings and specifications will be available by 27 August.

14. EK has agreed to design and fabricate the necessary removable gauge blocks required to make core pressure measurement on the flight stacks. It is expected and hoped that the flight units will be

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available approximately 1 October. The current schedule indicates that the four flight rolls will be delivered 26 October, which will allow adequate time for the incorporation for the measurement of this technique.

By EK agreeing to undertake this task, we are not having to submit to P.E.'s $35,000 proposal to do this.

15. At the Monthly Managers' Meeting, Paul Heron pointed out that the time lines for SV-1 to launch had now changed from 17 December to 23 December based on receipt of the SV-1 midsection by 15 Spetember. The date of 17 December can be recovered if SBA system testing and Sensor Subsystem Chamber "A-2" testing is omitted. Slippages in the SDV-III schedule caused by various failures of the Sensor Subsystem have now brought the schedule for this system to have equal criticality with SV-1 for meeting the December launch. The effect of this is to further reduce the probability of a December launch capability for HEXAGON.

16. Because of the slippages that have been occurring in the schedules being followed by the associate contractors, delivery of end items has now become inconsistent with actual need dates. It appears that considerable overtime and extra shift effort will be worked in an attempt by contractors to hold these schedules unless the Government established a revised master schedule. Such a revised master schedule should take into consideration the probable delays in first vehicle launch and also the use of CORONA vehicles for saving some cost and for early bakkup vehicles for HEXAGON. Perkin-Elmer has been directed to follow a delivery schedule which is no longer consistent with either the need dates of McDonnell-Douglas or Lockheed but which is considered to be consistent with the expected launch schedule based on the present status of the program. Resolution of the schedule must be made before a follow-on contract can be negotiated and should be made as quickly as possible to obtain as much cost reduction in FY 1971 as possible.

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17. Mr. Maguire stated that the 41 man days of OTD labor authorized on the follow-on effort for August/September is inadequate to do the necessary work in support of subcontract and manufacturing labor. It was pointed out that the Project Office had requested a revision of their labor requirements based upon a change in the delivery date of the first follow-on vehicle from October to December and that P.E. had not provided the reduction that this change would make. In the absence of that information, an arbitrary figure was established by the Project Office. P.E. was informed that any change in this figure would only be made after they provided the proper justification for additional manpower.

III. Model Status

A. Development Model - SDV-III

1. The vehicle is now in the horizontal position in front of the A2 chamber. Testing has slipped four days since the last report due to problems with the supply reload. The SS horizontal baseline test is now scheduled to begin on 22 August followed by EMC. The test certification board met on 18 August to review the post acoustic data and plan for the future. As a result of the board meeting, the SVIC is proceeding with all preparations to run the A2 chamber test prior to acoustic.

2. The problem associated with the supply load was twofold; one, a cable was inadvertently pulled which resulted in pins being pulled out of a connector; two, several pneumatics connectors apparently became loose during the acoustic test (or subsequent SV handling) and were leaking. The pins have been repaired and the Wiggens connector tightened and epoxied. WCPO suggests the Wiggens connector on future models be safely wired (similar to the ones in the TCA compartment).

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B. SV-1 (S/N 003)

Midsection

An in-air run on Camera "A" only, was conducted on Thursday to verify that the broken platen skew angle box wire was the cause of the excessive smear. Following this run, the chamber will be pumped down and the 70° tests continued. Following the 70° tests, the 47°, and the 93° tests will be run. We are now predicting a ship date of 7 or 8 Sptember barring any further problems.

Forward Section

The SV-1 forward section cable installation has been completed and the forward section raised onto the SVFS dolly. One of the flight model RV's has completed structural modification and the take-up has been reinstalled. The R&I on this TU began on 20 August. A roller on one of the articulators was discovered to have a moderate nick in it and will be replaced.

C. SV-2 (S/N 002)

LSFS failures on both cameras have delayed TCA assembly. Perkin-Elmer feels that they have corrected the problems and are going ahead with platen test and installation into the TCA. The model has slipped nine days as a result of the above. Ready Room "A" tests are now scheduled to start on 28 August with a planned shipment on 20 October.

IV. Meetings Requiring Participation of Headquarters Personnel

Date	Subject	Attendees
NPIC		
25-26 Aug	CORONA PET	Burks, Kohler, [redacted]

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Date	Subject	Attendees
P.E.		
23-29 Aug	Monitor S/N 003 Chamber "A" Acceptance Tests	Various
24 Aug	FACI - SSTC	Burks, [redacted]
RCA		
26 Aug	P-3-1 and -2 Buyoff	[redacted]

[redacted]
TPA/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 - CS/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 - [redacted]
Cy 14 - [redacted]

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4 September 1970

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 56

I. CORONA

A. Accomplishments

1. All systems now located at Bldg. 156 have acceptable Dual Data Signal Conditioners (DDSC's). The spare and CR-8's DDSC were completed on 3 September.

2. The DISIC/PMU Mods continue.

3. The collimator block is prepared for CR-13, the first system to be tested at Bldg. 152.

4. During ambient test, DISIC S/N 13 exhibited marks similar to the last two flight systems. This will definitely aid in determining the cause and providing corrective action. Film rub against the grid plate appears to be the primary cause.

B. Problems

None

C. Projected Status

1. CR-13. Review of Block results.

2. CR-2. Backup-holding.

3. CR-14. Block tests.

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4. CR-15. Functional tests.

5. CR-16. Acceptance tests.

6. CR-8 . CORONA test results acceptable; plan to ship 9 September.

II. HEXAGON

A. General

1. At an informal meeting with [redacted] SP-7, the WCPO described the desired sensor subsystem types of engineering operations and CORN target usage. A large number of engineering operations (with CORN support) is anticipated at the beginning of SV-1. The WCPO plans to send premission "CORN Alert" from Bldg. 156 after coordination with the STC; in-flight CORN traffic will come from the STC. At the same meeting, SP-7 summarized Col. Buzard's conclusions regarding SV-1's first full camera operation (Rev 16-COOK), and as a result the WCPO is preparing a set of proposed ground rules and a plan for sensor operations on the first flight. These will be sent to Headquarters for concurrence prior to further discussion with SP-7 personnel. There is general agreement between SP-7 and the WCPO on the first flight camera operations.

2. The FIDAP Software is being modified by the WCPO to better compensate for reader errors and film shrinkage in computing film velocity errors. The modified software is to be sent to Westover, Danbury, and Headquarters during the week of 11 September.

3. A meeting was held at the SCF [redacted] personnel on 4 September at which was discussed the SCF ephemeris data available to support the HEXAGON pre-mission planning by the WCPO.

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4. Bob Gregory of IBM has been assigned to provide a software interface with the West Coast computer facility. His function is to work directly with the technical staff on 360 operating system problems. He will not be interfacing directly with computer facility users.

5. Version 18.6 of the 360 operating system has been installed and is performing satisfactorily. Release 19 has been announced by IBM. Version 19 has been ordered and will be system generated and tested in the next 45 days. Work will continue on Version 18.6.

6. Messrs. [redacted] from OCS were given a tour of the West Coast computer facilities during this past week.

7. The high mean smear measured at the 55° collimator during chamber testing of S/N 003 was discussed with PE on 2 September. PE presented some data which they believe indicates that the mean smear did not, in fact, change, but was either a chance occurrance or something in the system that makes the error be at one end of its excursion at the 55° optical bar location. The amount of effort behind this analysis is unsatisfactory, and the explanation offered highly doubtful. The problem is that PE emphasis is being placed on the S/N 003 failure analysis, and the performance anomaly is being ignored. The Camera "A" platen has been replaced. If the cause of the problem was in the platen, it will not reappear.

8. PE has been instructed to run a complete format illumination test on S/N 003. PE had proposed to run a reduced test to save schedule time. Inasmuch as the saving was only twelve (12) hours and the test was a CEI spec requirement, their proposal was not accepted.

9. PE presented their rationale behind recommending shifting the optical bar encoder (Type I) and the drive capstan encoder (Type III) from DRC (the present subcontractor) to Boller & Chivens for the follow-on procurement. DRC bid a fixed-price of approximately $1.5M, while Boller & Chivens bid a cost-plus of approximately $1.0M. Despite

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Project Office strong urging to retain at least the critical Type I encoder at the proven current vendor, PE persisted in their recommendation. The Project Office finally concurred, but will insist that the $1.0M line item be used in the follow-on contract negotiation with PE.

B. Model Status

Development Model (SDV-III)

Testing has been at a standstill while troubleshooting of the Camera "A" takeup, film tracking, Camera "A" focal plane adjust, and Camera "B" platen problems took place. It was determined that a focal plane shift was definitely occurring on the "A" Camera due to spikes on the motor windings at camera power "off". It appears that this problem is caused by a power supply race situation similar to that identified on the DIU. SSC is investigating a possible design fix in the F and E Box. The Camera "B" film tracking was corrected by the addition of nylon bumpers to the crossover area. A broken wire was also located which had caused the Camera "B" platen to hit the stops. The Camera "A" forward film path was realigned and respliced and, in preliminary runs, tracked properly. The horizontal baseline test began on 3 September.

SV-1 (S/N 003)

Midsection

The symptoms of the same tracking problem which resulted in the S/N 003 Chamber A failure have reoccurred. Specifically, the Camera "A" supply steerer is going into saturation. The symptoms are intermittent. Isolating the problem will, therefore, be difficult. However, it would appear to be obvious that the tracking problem must now be found and corrected.

The only possible fix which has been identified is to restrict the motion of the crossover air bars in the supply exit vestibule. PE was able to force the crossover air bar to lock at the end of its travel

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by displacing the film about 0.2 inches as it came off the supply stack. The supply steerer output went into saturation when the crossover went into its stop. This may have been what happened when 003 failed in the chamber. However, a forcing function, which would cause the film to displace 0.2 inches, has not yet been identified.

PE is building up the supply, now scheduled for S/N 002, with stops to restrict crossover motion. This supply may be put on S/N 003 in an attempt to eliminate the tracking problem.

Forward Section

Preparations are underway for the functional testing of RV/TUA #4 which is installed in the F/S structure. Film stacking tests began on 4 September. R&I of TUA has been completed. Several system anomalies including brake drag, a builder roller malfunction, and possible misalignment of the roller assembly have necessitated the return of this takeup to RCA (via the MWC) scheduled for 8 September. A P-2 takeup now at the MWC and its associated RV will replace this rejected unit.

SV-2 (S/N 002)

The contamination (sand) problem appears to be under control. Contamination was found in the loopers, crossovers, and articulators. All rollers in the loopers and crossovers have been removed, cleaned, and replaced.

The metering capstan twice-per-revolution error has appeared. When good fine-tension-sensor rollers were put into the platen, the metering capstan error was unacceptably large. The runout on these rollers is on the order of 30 to 40 millionths, which should have eliminated the error. However, for schedule reasons, these rollers were not statically balanced at the vendor. If a large mass imbalance exists, the problem should, and apparently has, reoccurred. As confirmation, PE introduced a mass imbalance on one of the rollers and the error increased. The rollers have been sent back to the vendor to be statically balanced.

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PE is now working two (2) full eight-hour shifts, five (5) days per week on this model. They had previously been working twenty-four (24) hours a day, seven (7) days a week. As a result of this and the continuing metering capstans problem, the ship date has slipped to 15 December.

III. ADMINSTRATIVE

A. Meetings Requiring Participation of Headquarters Personnel

Date	Subject	Attendees
LMSC		
8 Sept.	Contamination Sampling Meeting	Burks
9-10 Sept.	A&T IFWG	Burks
10 Sept.	SCF/PAD Interface Sub Group	[redacted]
11 Sept.	Operations IFWG	Johnson
WCPO		
10 Sept.	Data Link Discussions	[redacted]
10 Sept.	MACFACT Discussions	Burks, [redacted]
SCF		
8-11 Sept.	HEXAGON Software Mission Planning	B. Johnson, [redacted] McMillan, [redacted]

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Date	Subject	Attendees
P. E.		
Week of 6 Sept.	Monitor S/N 003 Chamber "A" Acceptance Tests	Various

B. Training

1. [redacted] will attend the "Decision Theory Course" at Site A 8-11 Sept.

2. [redacted] is attending the Mid Career Executive Development Course through 9 October.

[redacted]
TPS/PRS/OSP

Distribution:
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Cy 11 - PRS/File
Cy 12 - PRS/Chrono
Cy 13 - [redacted]
Cy 14 - [redacted]

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25 September 1970

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 59

I. CORONA

A. Accomplishments

1. The changes to the DISIC PMU are in work.

2. A review of the DISIC film flatness indicated unacceptable results. The unit is being repaired and another test will be conducted. Another unit is being prepared concurrently for the next mission.

B. Problems

1. The results of block tests on CR-14 indicate that the previously reported collimator problem may not exist. CR-13 will be returned to the collimator for a retest to confirm this. The evaluation of data from CR-13 and CR-14 is continuing.

2. The failure analysis of the Autronics 4 channel timer is continuing.

C. Future Activities

1. Acceptance of CR-8 SRV's at G.E. on 27 October.

2. Mission 1112 launch on 18 November.

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D. Projected Status

1. CR-13. Post block review.

2. QR-2. Backup.

3. CR-14. Block test.

4. CR-15. Pre-HIVOS.

5. CR-16. Acceptance test.

6. CR-8. Storage.

II. HEXAGON

A. General

1. The A/P software personnel have been requested to develop a HEXAGON Exposure Ephemeris Program (HEEP) for operational use by SSC and WCPO personnel at the SCF. The work is being done on a non-interference basis with CORONA support. Anticipated completion date is 1 November.

2. SSC/WCFO personnel have made several modifications to MACFACT required for operational usage.

3. As an action item from the September Operations IFWG, the engineering operation for the first flight are being defined with SSC participation. Creep operation and health checks have been defined.

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3. A team of SPO, Aerospace, and LMSC personnel was invited to investigate the problems with film tracking and platen and metering capstan performance. The team was not able to identify discreet causes for the problems but weaknesses in the development program, both experimental and analytic, were identified. Specifics will be presented at the Monday Staff Meeting and a written report will be delivered to D/OSP by 2 October.

4. Perkin-Elmer representatives met with Project Office personnel on 24 September to discuss the make or buy decision for the take-ups on the follow-on contract. Although it was Perkin-Elmer's initial position to bring both the production of take-ups and take-up refurbishment in-house, Perkin-Elmer reversed its position at the strong insistence of the Government and will proceed to negotiate a follow-on subcontract with RCA. The Project Office was prepared to release a RFP for a fixed price bid from both Perkin-Elmer and RCA, in essence making the T[illegible] contractor and associate contractor but it was decided not to do this at this time but to consider this approach for the subsequent follow-on contract.

5. The question on where to procure the Type I and Type III encoders for the follow-on remains an open issue.

6. Review of the SSC revised QA Manual has been completed, and the Headquarters comments will be forwarded subsequent to final typing. Significant recommendations for inclusion in the revised Manual include (1) assurance of hardware/software compatibility, (2) definition of "corrective action" flow, (3) delineation of responsibility for establishment of records requirements, and (4) more explicit definition of the responsibilities and activities of the reliability organization. Discussions with P.E. relative to the follow-on work statement included considerations for the inclusion of the latest appropriate (Headquarters-approved) version of the QA Manual when available.

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7. SETS representatives and WCPO reviewed the bench test box specification and work statement. Finalization of both documents is in progress.

B. Model Status

Development Model (SDV-III)

EMI tests were satisfactorily completed on 23 September. The system is now undergoing preparation for acoustic testing. The vehicle will be erected in the Vertical Integration Stand on 24 September and will be moved to the acoustic chamber on 28 September.

SV-1 (S/N 003)

Midsection

In vacuum, 70°F acceptance testing is partially complete. Testing is continuing and should be complete today. The film is being taken up in the forward section simulator take-up rather than the access lock. Therefore, the chamber will have to be repressurized to remove the film before proceeding to 47°F. There will be approximately 88,000 ft. of material per camera after the 70°F test.

Forward Section

The buildup of the SV-I forward section is temporarily held up for the completion of take-up de-orbit pin modification and the return of RV #3 from MWC. RCA personnel visited WCFO this week to perform alignment checks on film path roller assemblies.

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SV-2 (S/N 002)

Forward Section

1. Significant improvement has been made in metering capstan performance. Both metering capstans on this model have errors between .025 and .03 inches per second when measured at the platen level of assembly. When in the system, the error will increase; however, the error should be close to the 0.05 inch per second requirement.

III. ADMINISTRATIVE

A. Meetings Requiring Participation of Headquarters Personnel

Date	Subject	Attendees
P.E.		
29 Sept	SSTC Spares & Funding Status	
30 Sept	Acceptance Data Review (S/N 003)	Kohler,
30 Sept	Modular Measurement Package Review	
WESTOVER AFB		
1-2 Oct	Acceptance Data Review (S/N 003)	Kohler,
HQS		
29 Sept	Cost Review	Staff
30 Sept	Proposal Discussions	Patterson,

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Cy 14 - [redacted]

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