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BYE-108110-70
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14 August 1970**DSP REGISTRY FILE COPY**

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 53

I. CORONAA. Accomplishments

1. Mission 1111 (CR-12) was recovered during rev. 301 on 10 August. Evaluation, although not completed, indicates the second half of Mission 1111 is as good as the first half, which was assigned an MIP of 105. The problem of improper instrument stow continued throughout the "B" portion of the mission but did not impact on the photography.

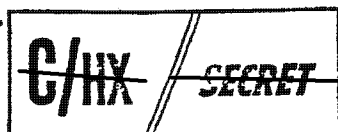
2. All parts for improving the dual data signal conditioners have been received, and some should be completed during this next reporting period.

3. The QR-2 post-storage audit has been completed.

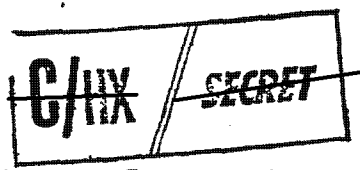
4. SAFSP requested a review to determine the feasibility of providing pressure make up (PMU) gas to the DISIC unit during its operates. Engineering analysis indicates that adequate pressure is available and that modifications are minor; however, this mod probably cannot be incorporated if the next flight is in September. A flight date during October or November probably will contain this change.

5. CR-8 completed its acceptance at Itek. This concludes all CORONA hardware work at Boston.

6. A meeting was held with LMSC and VAFB personnel concerning the checkout of the DLT-310 data link terminal at VAFB and other transmission problems. LMSC and VAFB began checkout of the new DLT 310 this week. Initial results indicate completely successful testing. The A/P 1004 data transmitter has been returned.

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7. The facility move has been successfully accomplished with a minimum amount of interference. The systems are currently being processed with new LMSC technicians. Numerous small problems are being resolved as Bldg. 152 becomes more involved with the CORONA effort; however, these problems were expected in moving into an extensively renovated building. All personnel involved did an outstanding job. The A/P facility is still forwarding items to the depot and restoring the contractor buildings, but the closeout date of 1 September should be met.

B. Problems

None.

C. Projected Status

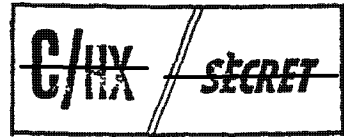
- 1. CR-13. Pre-storage preps.
- 2. QR-2. Post-storage.
- 3. CR-14. Pre-storage preps.
- 4. CR-15. Tracking.
- 5. CR-16. Mods.
- 6. CR-8. Clean up and ship preps.

II. HEXAGON

A. General

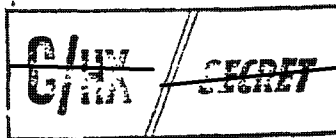
1. The revised SSC QA manual has been received and is being reviewed by Headquarters, SETS, and [redacted]. A cursory review thus far discloses that organizational and policy inaccuracies

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exist as well as some procedural deficiencies. Notably, there is no reference made to the WCFO QA/QC responsibility, and it is not even noted on the organizational chart. Secondly, there is no responsibility assigned for QC review or approval of manufacturing, test, trouble shooting, or disassembly/reassembly procedures. A later edition ostensibly will be issued soon but will be held until subsequent to receipt of the Headquarters comments to the recent issue.

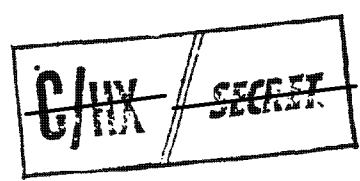
2. SSC is preparing for FACI on S/N 003. Thus far, no specific S/N 003 FACI data package has been transmitted to Headquarters or SETS. Headquarters and SETS have most of the basic applicable test procedures however, and have reviewed them. The annotated test procedures as they become available are being provided to the NEPO for our review there. No test reports are available yet except for O. B. data, which has been reviewed by Headquarters.

3. Discussions were held with Perkin-Elmer personnel concerning modification to the present formats of the MMP's (Modular Measurement Packages), which are the computer programs for assessing the electrical/mechanical performance of the sensor, or replacement of some of the MMP's with the MACFACT program, the purpose of the changes being to reduce computer time and/or provide a more useful summary presentation. Perkin-Elmer agreed to consider the changes and will respond within one week after receiving the card deck for the latest MACFACT revision which should be approximately 21 August.

4. AC's quote to P.E. for SSTC spares came in at \$650K, broken down as follows:

- \$450K - spares manufacturing
- \$100K - acceptance testing
- \$ 50K - Program management
- \$ 50K - R&I, transportation, QA, etc.

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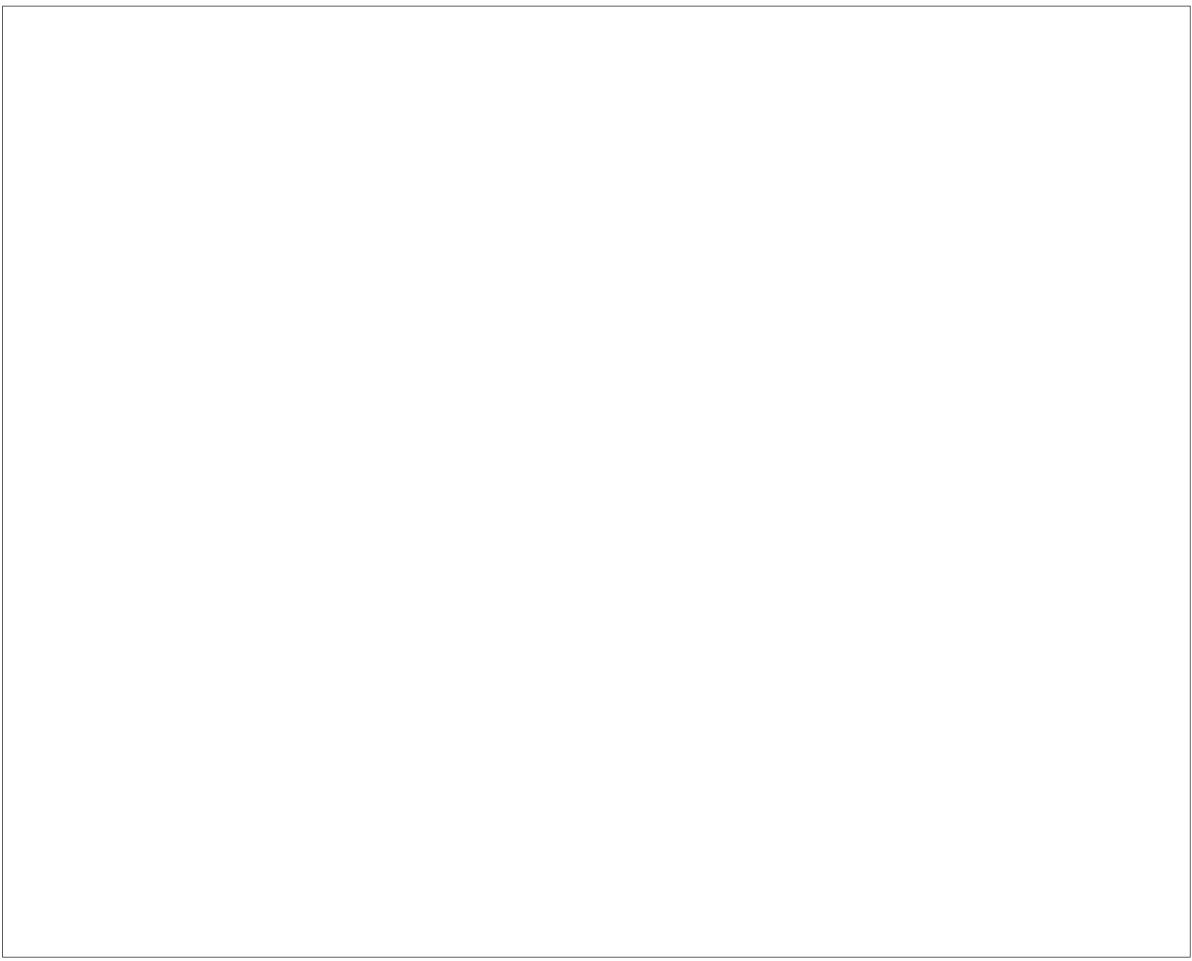


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P.E. is going to ask AC to requote based on a 50% reduction in spares quantities (for items more than one), deletion of AC's conduct of the acceptance tests (P.E. will propose on this job), and reduction in the last two categories. Headquarters will review this issue with P.E. on Wednesday, the 19th. Delivery of SSTC spares is now projected to commence in September and end in November.



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C. OCTOBER/NOVEMBER

(1) P.E. to recommend initial spares list for the follow-on program.

D. DECEMBER/JANUARY

(1) Provisioning conference for the follow-on program.

6. Discussions were held at the WCPO with SSC/WCFO personnel regarding FLIP, MACFACT, and Danbury software. Agreement was reached to make SSC/WCFO responsible for the development of a revised FLIP Program which will take advantage of the Danbury software capabilities.

7. The final format of the HEXAGON Operations Performance Estimate (HOPE) message was documented by WCPO personnel.

8. Memorandums have been distributed to all West Coast computer facility users to the effect that the release 18.6 of the IBM 360/ operating system will be operational during the prime shift beginning 24 August 1970.

9. Messrs. [redacted] from SSC presented a briefing to the WCPO on the TACOS system.

10. SETS personnel visited the West Coast computer facility for testing of MACFACT and SAP Programs.

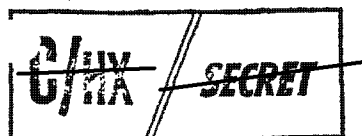
11. Messrs. [redacted] met with CALCOMP. A software agreement was signed, and an installation date was established for a 15 September delivery of the CALCOMP plotter.

12. During the past week, 751 jobs were processed on the West Coast computer using 13 hours CPU time, 168 hours of elapsed time. A breakdown by user organization is available.

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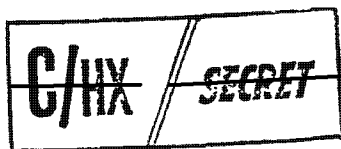
13. Following the problem resulting from the jack screw in the platen, a review was made of SSC's QC control in the high-bay area. It was determined that there are inadequate operating instructions and checking procedures carried out in the assembly and disassembly of subsystems in the high-bay area. The Contractor was advised that unless his quality assurance procedures were improved that the Government would take steps to establish a Government inspection service at the platen. They were also informed that the project resident personnel would be directed to stop work at any time they considered proper practices and procedures were not being followed.

14. A discussion was held with Messrs. Robertson and Malin regarding Robertson's concern that the two groups, i. e., the Contractor and the Government, were slipping back into the mode that we were in at the time of the "Love-In"; that is a mode of mistrust and game-playing. In questioning him with regard to his concern, he indicated that he thought the Government was waiting them out with regard to the schedule change. He was assured that the schedule that was in the contract was in fact the schedule the Government expected them to deliver on and that he was remiss in not having taken immediate steps to get the program on that schedule. It was made very clear to Mr. Robertson that there was no game-playing, that the Government had not intended to change the schedule so that they could come in with a cost change on which they hope to collect fee. It was pointed out that the schedule slippage was the sole responsibility of the Contractor, and that while the Government must pay the costs involved, there would be no consideration for fee on any of these costs. This subject will be raised again by Maguire after he returns from his vacation.

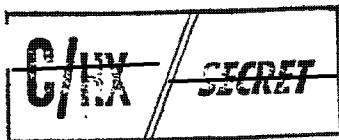
15. The quarterly meeting of the CCB took place at Westover (AFSPPF) on 11, 12 and 13 August 1970. The meeting was broken into two parts. Part One was a symposium on non-conventional materials and included presentations by several film manufactureres including Eastman Kodak (Diaz), Horizons, Inc. (Free Radical), 3M (Dry Silver),

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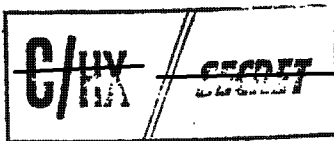
DuPone (Dylux) and Itek (RS). Presentations were also made by potential non-conventional duplication equipment manufacturers including Fairchild Camera, Perkin-Elmer, AIL Information Systems and Baird-Atomic. The highlights of this part of the meeting were as follows:

- a) E.K. has developed a new Diazo duplication material. It is very high resolution and very slow.
- b) Horizons Free Radical duplication film is in production, and the first shipment has been made to Westover. The resolution of the duping film is in excess of 900 c/mm low contrast.
- c) 3M is nearing production on their dry silver duping films and papers.
- d) Itek RS has demonstrated high resolution in their Niagra tests.
- e) DuPont is considerably behind Horizons in their free radical work.
- f) Fairchild and Perkin-Elmer are both making a Horizons heat fixer (on their own) for use with Horizons duplication film.
- g) Separate discussions were held on the 3M and Horizons camera speed films and a separate report will be made.

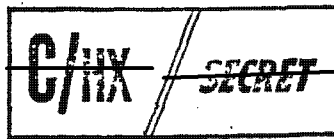
Part Two of the CCB Meeting (the regular meeting with E.K.) began on 12 August. The highlights of this meeting were:

- a) There is a potential problem with a strike at E.K. on the finishing of the HEXAGON expansion program at E.K. Work-arounds, however, will minimize the severity of this problem.

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b) E.K. presented a detailed analysis of the impact of increased amounts of SO-255 (UTB SO-242) on their production for GAMBIT. Black and white duplicates of the color could be delivered (for 4,000 feet of color) only two days later than normal. All color dupes, however, would take up to 30 days longer to produce than normal. The lack of color equipment is the real problem.

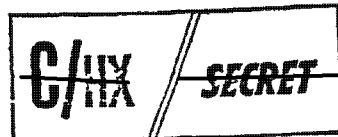
c) Status reports on the following current PAR's were given:

- 1) PAR 157S/R1, Contrast Printing Distortion
- 2) PAR 29-9-3S/R1 - New and Improved Image Evaluation
- 3) PAR 164B, Operable Breadboard Automatic Label Printer
- 4) PAR 170B, Advanced Printer for Continuous Exposure Control
- 5) PAR 165B/R2, Pre-Splice Complex
- 6) PAR 172S, Duplication (It should be noted that this PAR has resulted in significant improvements in the quality of duplicates delivered.)

d) Several new PAR's were submitted. These are listed below with the action taken by the CCB:

- 1) PAR 24-0-11S, Haze Forecasting and Climatology - Approved.
- 2) PAR 184B, Interframe Density Control Color Printer - Approved.

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- 3) PAR 185S, Interframe Color Control Lamp-house Study - Deferred.
- 4) PAR 187S, Abrasion Protection for Color Acquisition Films - Deferred.
- 5) PAR 188S, Improvements to Mensuration Accuracy - Deferred pending NPIC review.
- 6) PAR 189S, Color Processor Definition Study - Deferred.
- 7) PAR 186, Contract Monitoring, Coordination and Liaison - Approved.

The next CCB meeting will take place in November and be hosted by Headquarters.

III. Model Status

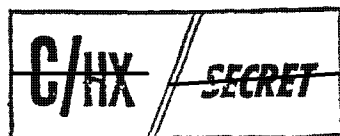
A. Development Model (SDV-III)

1. The film path was repaired, and the system functionally tested in the vertical integration stand. On completion of the functional test, the system was moved to the horizontal position in order to accomplish the following major pieces of work:

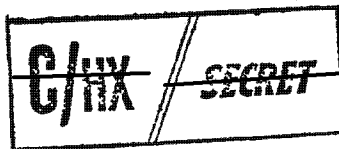
- a) Reload the supply
- b) Replace the OB encoder
- c) Reinstall the TU2A EMI filter
- d) Check out the TU3B electronics

Items a) and b) are currently under way; items c) and d) are complete. All work is estimated to be complete on 16 August.

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2. During the disassembly of the supply, a caging band broke due to high tension. The problem has tentatively been identified as loose screws on a control pulley. In inspecting the supply, several screws were found which were not epoxied (the same type workmanship problem which caused the film transport problem after the acoustic test). The supply is currently undergoing a complete and thorough inspection. The new caging band is on order from Danbury.

B. SV-1 (S/N 003)

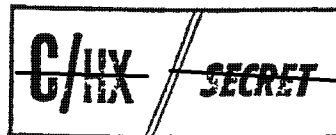
Midsection

As of Friday morning, 14 August, P. E. is waiting for film evaluation data and the decision to pump down and commence acceptance tests. The decision is expected this afternoon which would allow commencement of the 70°F "factory adjustment" tests sometime Sunday. Personnel from the Project Office are at P. E. for this activity. P. E. is now predicting a 2 September ship date barring any failures. This assumes:

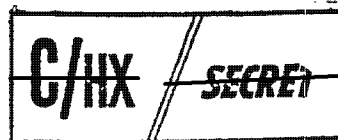
- a) Completion of 70° tests - 16 August
- b) Completion of 47° tests - 20 August
- c) Completion of 90° tests - 24 August
- e) Complete electronic box replacement & reverification - 28 August
- f) Complete vertical baseline & shipping preps - 2 September

The in-air test runs in the chamber during the first of the week showed excessive smear and film scratches on the "B" camera. This was caused by some platen screws which were insufficiently backed off. These screws have been adjusted and the in-air tests rerun. In addition, the aperture block and the 40 Hz box on the "B" side were changed - a light pipe was crimped and a prism was tilted.

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Forward Section

All SSC cables have been installed in the F/S structure. The structure has been turned over to SBAC for modifications and cleaning. The modifications of articulator trays are still in progress. The TUA's remain removed from the RV's awaiting completion of MWC mods.

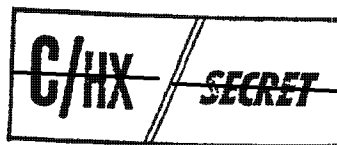
C. SV-2 (S/N 002)

A TCA acoustic assurance test has been added to the flow, and the test will be run next week. Both platens are installed. Platen and optical bar servos are now being checked in the clean room. Ready Room "A" tests are now scheduled to start on 20 August, a slip of five days in the last week. Forecast ship date is now 11 October.

IV. Meetings Requiring Participation of Headquarters Personnel

<u>Date</u>	<u>Subject</u>	<u>Attendees</u>
<u>P.E.</u>		
15-22 Aug	Monitor S/N 003 Chamber "A" Acceptance Tests	<input type="text"/>
19 Aug	Dry Run of Consultants' Briefing	Patterson
<u>HQS</u>		
20 Aug	Managers' Meeting	Patterson
20-21 Aug	MACFACT Review	Patterson, Burks, <input type="text"/>

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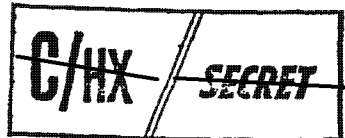
<u>Date</u>	<u>Subject</u>	<u>Attendees</u>
<u>LMSC</u>		
18 Aug	EMI Control Board	<input type="text"/>
19 Aug	Quarterly Technical Meeting	<input type="text"/>
<u>TOPOCOM</u>		
19 Aug	Color Task Force Briefing	Kohler
<u>SETS</u>		
18 Aug	Coverage Requirements	<input type="text"/>
<u>EK</u>		
18 Aug	Facility Orientation Visit for D. Noon	<input type="text"/>

PMO/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 -
- Cy 14 -

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