



BYE-109113-71
Copy // of 15
4 June 1971

MEMORANDUM FOR: Director of Special Projects

SUBJECT : Photo Reconnaissance Systems Report No. 95

I. CORONA

A. Accomplishments

1. The tentative flight date for CR-15 (Mission 1115) has been changed to 30 June 1971. Thermal paint and tape patterns have been redetermined, and work is proceeding.

2. The thrust cone disconnect problem was analyzed at the vendor's, and repair and refurbishment are in process.

B. Problems

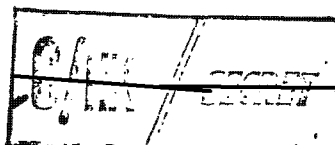
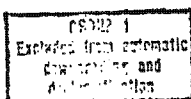
No major problems.

C. Projected Status

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

D. Plans

In view of the uncertainties of the CORONA Program in FY 1972, the Project Office, in concert with the Contracts Staff, intends to negotiate level of effort-type contracts, with limited material costs for LCL item replacement, with LMSC, GE, and Itek (Palo Alto) and to fund them on a two-month basis.



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II. HEXAGON

A. General

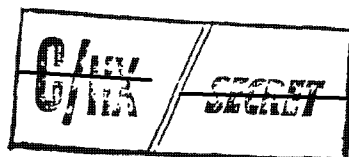
1. Messrs. Maguire, Petty, and Roylance met with Messrs. Patterson, [redacted] at Headquarters on 3 June in an attempt to resolve a number of open items. They presented their case for optical bar number 14 rework being out of scope, and Mr. Patterson agreed to consult further with the government negotiators to see if there was any further basis for consideration. The agreed-on delivery dates for the remaining DH-7776 midsections will be incorporated in the next amendment with the additional understanding that subsequent CCR's affecting the delivery date of a given midsection would not necessarily "domino" into the delivery dates of the remaining midsections.

2. The Monthly Technical Review was held at PE on 2 June and covered the following areas. The supply brake design, effective on SV-7 and up, still has a failure mode which makes the brake fail in the "on" position. This is needed to retain film tension but requires the supply motor to overcome the brake force in order to subsequently move film. The Project Office is looking into alternate failure mode concepts. The take-up brake redesign appears to be a reasonable improvement to the current design and will be effective on P6-4. The results of the "double pass" optical bar tests to determine the centrifugal effects of the folding flat in a one "g" field were inconclusive and further tests are planned. The effect on the take-up shaft of the simultaneous firing of the two drogue chute release pyros (the original MWC design had only required one) was assessed by PE to be no significant problem.

B. Advanced Planning & Management Support Activities

1. Continued efforts are being expended on derivations of the data package, work statement, program plan, and functional/performance specification, preparatory to initiating

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the conceptual study phase for the Block II system. The necessary interface documentation has been received from SVIC, and PE is compiling the appropriate HEXAGON Block I documentation for shipment. D&AD, TRW, and the Project Office are coordinating on the preparation of the program briefing to D/OSP and DD/OSP tentatively scheduled for 23 June.

2. Take-up P2-2 had been damaged several months ago when an A-frame fell on it and hit the center bulkhead. PE submitted a CCR with an ROM of \$250K to repair the take-up. This CCR was determined to be in scope due to PE negligence. PE then proposed that the repair (rather than a complete rework) be done at PE and the retest be done at RCA. They estimated this to be about \$50K. The Project Office suggested that PE get a quote from RCA on the total effort. Based on the RCA response of something less than \$50K, PE has decided to allow RCA to do both the repair and retest.

C. Engineering

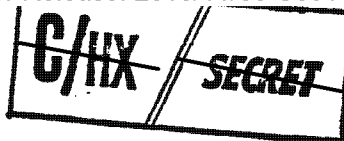
1. PE has provided the Project Office with a schedule for documenting the system reverification requirements to be used in system retest when AVE spares are used. The Project Office has been holding the DD-250's on the AVE spares in an effort to make PE write these requirements. The schedule shows the last reverification document being released in August.

2. EK had been taking measurements on two film samples to try to devise a measurement technique which could tell the taper of a particular film segment. Unfortunately, both samples of film were so flat that no meaningful data was gathered. Some high taper film has been sent to EK from PE and also some "non-transportable" film from RCA in order that the measurements can be repeated. If successful, some data should be available about the first of July.

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3. The winding adapters for the EK spooling machine have been received and will be tried out today. Unless some unforeseen problems come up, all is in readiness at EK for the first high-pressure rolls for the follow-on program. The cores should arrive by 11 June, and the rolls should be at PE about 1 July.

4. Approximately 28,000 feet of low-curl SO-255 color film will be sent to PE about the end of June. This film will be put on two cores (10,000 feet for the abbreviated film path, and the balance for Engineering Model system level tests).

5. Rolls 47 and 60 with Type 1414 film were delivered to PE this week. Roll 61 will be finished Monday, 7 June, and will be sent to Bradley Field so it and roll 60 can accompany SN-004 to the west coast for the R&I reload.

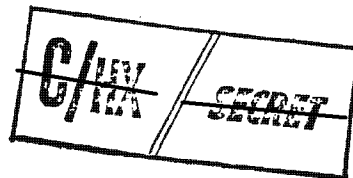
D. WCPO

1. The SV-1 dress rehearsal readiness review is being held today, with the rehearsal itself starting on Monday, 7 June, completing on Wednesday, 9 June. One recovery and an orbit adjust system (OAS) study are planned. No anomalies are planned for the rehearsal.

2. The test output from the modification to 'TUNITY which restricts operational values of the rewind value (RWV) to a specified range was reviewed on 2 June. The modification appears to be working successfully with the single exception of a possible periodic error of less than 0.2 sec in computing operating time. Investigation of the discrepancy between manual calculations and 'TUNITY calculations is being accomplished by TRW.

3. The additional 256K of memory was installed and operational 30 May in the West Coast Computer Facility.

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Version 18.6 of the operating system was modified to utilize the additional memory. Version 20 of the operating system has been tested using both the multiple variable task and multiple fixed task options. Computer utilization for May, by percentage of utilization by project is as follows:

	C	22.52
2	H	46.57

	Probe Systems	.55
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	Failure analysis	6.13
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	Utilities/OS Maintenance	3.68
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4498 jobs were processed, involving 378.21 metered CPU hours.

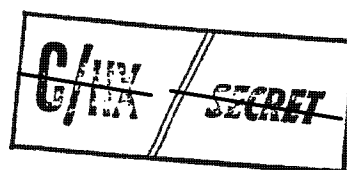
E. Model Status

1. SV-1 (MS SN-003)

The satellite vehicle was shipped to VAFB on 1 June. The first sensor operation is scheduled for 5 June (R-10) followed by an operation on 10 June (R-6). The SPD has decided not to recover the heat shield on RV #2 as recommended by MWC and the SPO.

2. SV-2 (MS SN-002)

The system is now in the acoustic cell undergoing preps for the acoustic test scheduled for 4 June 1971.



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3. SV-3

a. Forward Section

RV's 2 and 3 have been installed. The bulder roller shim retrofit on three TU's has been completed. The R&I test of all four TU's is now complete.

b. Midsection (SN-004)

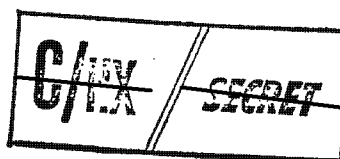
Messrs. Patterson, Dirks, and [] are at PE today to review with the Project Office Acceptance Team the data from the Chamber "A" acceptance tests. The high mean in-track smear on Camera "B" at the 55° collimator position is the main "bone of contention." If the system is accepted, it will be shipped to the west coast on Monday, 7 June.

4. SV-4 (MS SN-005)

The system is in Chamber "A" and is scheduled for the first in-air run today. The data review is now scheduled for 6 July, barring any problems.

III. Meetings Requiring Participation of Headquarters Personnel

<u>Date</u>	<u>Subject</u>	<u>Attendees</u>
<u>HQ</u>		
7-8 June	CORONA Contract Negotiations with GE	[]
9-10 June	Advanced HEXAGON Planning	[] []



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RCA

11 June P4-4 Take-up Buy-off



WCPO

11 June SV-1 Pre-launch Activities Patterson

VAFB

6-12 June R Day Activities



Patterson (12 June)


AD/PRS/OSP

Distribution:

**Cy 1 - D/OSP
Cy 2 - DD/OSP
Cy 3 - D/PRS/OSP
Cy 4 - EO/OSP
Cy 5 - SA/IS/OSP
Cy 6 - C/CS/OSP
Cy 7 - C/PAD/OSP
Cy 8 - AC/SB/OSP
Cy 9 - C/SS/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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