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MEMORANDUM FOR: Director, National Reconnaissance Office

ATTENTION: NRO Comptroller

SUBJECT: Quarterly Review Report

Forwarded herewith is a report reviewing NRO-CIA activities for the period 1 January 1967 through 31 March 1967.

[redacted]
Director
CIA Reconnaissance Programs

Attachments:
1. Quarterly Progress Reports [redacted] Satellite Systems (CORONA, [redacted] Applied Research/Advanced Technology,
2. [redacted]
3. [redacted]

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QUARTERLY PROGRESS REPORT

SATELLITE SYSTEMS

1 January 1967 through 31 March 1967

I. CORONA PROGRAM

A. Major Events

1. J-3 System Progress

The following milestones were passed during the period:

Mockup complete
Test procedures and preparations complete
System checkout console mods for J-3 complete
QR-2 delivered and acceptance tests complete
CR-1 delivered and acceptance tests complete

Using the 22 March 1967 data, the PERT schedule is 2.4 weeks behind schedule for a launch readiness date of 24 July 1967 for CR-1.

2. Factory to Pad Implementation

Payload J-34 (Mission 1038) and payload J-39 (Mission 1039) were the first two payloads processed under the complete Factory-to-Launch concept. The check-out, launch, and operation of both payloads (see operations section) were completed without major problems.

3. Program Managers' Meetings

Meetings were held at AP on 11 January, 7 February, and 22 March. J-1 and J-3 status

and payload problems were reviewed and appropriate action initiated. The PERT analysis system is being used to appraise the managers of the system status. Of major concern recently, has been the expiration of SRV forebodies as a result of program stretchouts. SRV forebodies are the only major CORONA Program component which has a calendar life of less than 24 months.

4. Special Briefings

A group of LMSC Vice Presidents were given a briefing on CORONA J-1 and J-3 and attendent financial status on 18 January 1967. Mr. Reber (DDNRO) and [redacted] (Hqs.) were briefed on J-3 Program and toured AP and the STC on 24 February.

5. Pan Geometry

A community Pan Geometry review meeting was held at Hqs. on 23 January. It was decided to continue the PG effort as organized pending users detailed evaluation of useability of calibration for M, C, and [redacted] purposes.

B. Camera

1. Received cameras No. 300 and 301 for system qual on 4 January 1967 and cameras Nos. 302 and 303 for flight system CR-1 on 14 February.

CR-2 (304/305) camera delivery to AP is scheduled for 21 April; CR-3 (306/307) for 6 June; and CR-4 (308/309) for 21 August 1967. The first of the improved petzval lenses has been bench tested at Itek and has demonstrated performance in excess of 180 l/min at low contrast. This lens is scheduled for installation in instrument #309.

2. The only major problem being experienced with the J-3 camera is the satisfactory system qualification of the high efficiency amplifier. It is hoped that this problem can be resolved by 10 April.

C. SRV

1. SRV 801, the first of the J-3 SRV's, was accepted at GE on 13 January. On 26 January SRV 802 was bought off. By 17 February, Vehicles 803/804 (CR-1) had been accepted and on 28 March vehicles 805/806 (CR-2) were accepted.

2. On 26 January General Electric/AP interface specification was completed satisfactorily. The following day the dynamic criteria for the fixed ballast design was approved. The ballast was retrofitted by General Electric in the field on vehicles 803 and 804 (CR-1).

3. Accidental damage to General Electric's vibration unit caused approximately one month's delay in the qualification testing of the ETV. This delay will not impact however on the schedules of QR-2 and CR-1.

D. Spacecraft

1. The following Design Reviews were held during this quarter:

Electrical Subsystems	10 Jan. (Final)
AGE & GHE Systems	16 Feb. (Final)
Air Frame Subsystem	17 Feb. (Final)
Payload and Vehicle System	21 Mar. (Final)

2. A final readiness review of the Payload System will be conducted on 18 April 1967.

3. Because of the advanced stage of development of QR-2 and CR-1 and the scheduling for delivery of the J-3 systems, PERT procedures are now being replaced by Line of Balance procedures for management purposes.

E. DISIC

1. DISIC S/N 2 has been installed in QR-2 and has tracked successfully. The cut & splice has been installed and operated successfully. DISIC S/N 3 is now installed in CR-1 and is about to undergo testing.

2. Fairchild personnel at AP are completing write up of testing procedures for DISIC to conform with AP format. Fairchild representatives are fully ready to continue processing the forthcoming DISIC's.

F. Operations

1. Mission Summary

~~FOR SECRET~~

A. Mission 1038 (Payload J-34)

Mission 1038 was successfully launched into an 80° inclination, 11 day synchronous orbit. Flight duration was 12 days with the successful air catch of the "A" capsule on the fifth day followed by air recovery of the "B" capsule on the twelfth day. Evaluation of the index material (post flight) revealed that the majority of the pan photography had been taken through thin cloud layers. The pan frames corresponding to clear areas were good quality. The payload temperatures were higher than predicted but still within system specifications.

B. Mission 1039 (J-39)

Mission 1039 was successfully launched into an 80° inclination, 11 day synchronous orbit. Flight duration was 12 days with the successful air catch of the "A" capsule on the fifth day followed by air recovery of the "B" capsule on the twelfth day. The temperatures were higher than predicted and outside system specifications. There was no noticeable degradation to the photography attributal to the high temperature.

C. Mission 1040 (J-35)

Mission 1040 was successfully launched on 30 March in a nose first 85° 11 day synchronous orbit. The nose forward morning launch was necessitated by a failure experienced on the yaw circuitry on the Agena guidance transformer.

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As a result of the high temperatures on missions 1038 and 1039, the thermal pattern was modified prior to flight with the result that the temperatures were very close to pre-flight predictions. During the flight a decoder in the Agena, which controls the payload primary command system, became intermittent thereby necessitating the use of the back-up command system. Due to the increased commanding time required by the back-up system, a few required operations were missed and some unwanted operations taken.

2. Mission Details

Mission No.	1038	1039	1040
Booster No.	495	493	501
Agena No.	1629	1635	1636
Payload No.	J-34	J-39	J-35
Instrument No.	192/193	206/207	196/197
SI No's.	D93/D90	D103/D100	D78/D92
DRCG No.	542	602	539
SRV No's.	719/720	729/730	721/722
Flight Date	1/14/67	2/22/67	3/30/67
Pounds Payload Flown	81.0/80.8	80.3/79.9	-------
Pounds Payload Trans.	80.3/81.5	80.8/79.4	-------
Recovery Dates	1/19/67 1/27/67	2/27/67 3/05/67	-------

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NOTICE OF REMOVED PAGES

Pages 8 through 61 are not provided because their full text does not contain CORONA, ARGON, LANYARD programmatic information.