SECRET

14 000228820

SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM

	UNCLASSIFIED		CONFIDENTIAL		SECRET

CENTRAL INTELLIGENCE AGENCY

OFFICIAL ROUTING SLIP

TO	NAME AND ADDRESS	DATE	INITIALS
1	DDCI		
2			
3			
4			
5			
6			

	ACTION		DIRECT REPLY		PREPARE REPLY
	APPROVAL		DISPATCH		RECOMMENDATION
	COMMENT		FILE		RETURN
	CONCURRENCE		INFORMATION		SIGNATURE

Remarks:

This is the sanitized version of the cable which you requested we prepare.

FOLD HERE TO RETURN TO SENDER

FROM: NAME, ADDRESS AND PHONE NO.	DATE
SA/DDS&T	4/1/65

	UNCLASSIFIED		CONFIDENTIAL		SECRET

FORM NO. 2-61 237 Use previous editions (40)

U.S. GOVERNMENT PRINTING OFFICE : 1961 O—587282

SECRET

Technical

Item 1. Recovery Vehicle Forebody (Ablative Shield)

Background

No forebodies have ever failed in flight. In January 1965 a [redacted] forebody failed a "cold soak" test at age 27 months. [redacted] staff (Program A, NRO) noted that several forebodies which exceeded a 12 month operational "shelf life" were scheduled to be flown. (The same was true of [redacted] forebodies). Without consultation as to impact on schedule and without technical data on the forebodies, [redacted] message [redacted] was issued by [redacted] directing that no forebodies which exceeded a "calendar life" of 12 months at recovery would be flown. The CIA representative at the A/P advised the community immediately [redacted] message [redacted] of the catastrophic effect that this directive would have on the CORONA Program.

Action

CIA Headquarters took action immediately to protect the integrity of the CORONA Program and to ascertain the actual limitations on "calendar life" of forebodies. The General Electric Company (Recovery Vehicle manufacturer) advised that the forebodies had a "calendar life" of 16 months and a "shelf life" of 12 months. The A/P had available in addition a study approved by Colonel Murphy (former CIA resident manager at A/P, now on [redacted] Staff) which had indicated a forebody "calendar life" of 36 months. CIA Headquarters immediately authorized a test program to investigate the aging effect on forebodies. As a part of this test program, one of the "over age" shields which was scheduled for flight was demonstrated by GE as flightworthy. CIA Headquarters presented a report to the D/NRO on 1 March suggesting a 17 month "calendar life" be adopted as an interim measure and the Program A directive was rescinded.

Technical

Item 2. Technical Directives, Formulation, and Implementation.

Background

Prior to the summer of 1964 Technical Directives in the CORONA Program were presented by the contractors at the Systems Engineering/Technical Direction Meetings and were subsequently reviewed and approved by the Configuration Control Board (CCB). The CCB was a joint CIA-Program A-NRO Staff Technical Board. In late 1964 the responsibility for writing Technical Directives was assigned to [redacted] Regardless of the scope of the Technical Directive a Formal Design Review is required in addition to which all specifications, procedures, etc., must be reviewed by [redacted] A second Technical Directive is required after the Design Review to implement the actions. All Technical Directives, even those involving only wiring changes, are reviewed by [redacted] the Air Force and the D/NRO.

Action

CIA Headquarters has been attempting to work with Program A to improve on these procedures. In several instances where desirable, technically sound improvement was being unnecessarily delayed by the current Technical Directive procedures, CIA has coordinated with Program A and/or the NRO Staff informally and has authorized incorporation of the modifications by a less formal Additional Work Authorization Approval.

Technical

Item 3. System Spares

Background

Aside from the overall goal of two recovered buckets per month, the NRO Staff has provided very little information to CIA Headquarters or the A/P facility on the CORONA requirements for flight units and/or spares. Although much of the cause lies in the lack of certainty within the NRO Staff as to what the CORONA requirements are, a recent problem developed because a spares requirement was issued through Program A to Lockheed, Sunnyvale (Agena contractor) without a follow-up requirement

being passed to the payload contractors. Through Lockheed, Sunnyvale, the Lockheed A/P received information on the spares requirement and began plans to accelerate production of payload vehicles. ITEK (camera manufacturer) and General Electric had received no notification however, with the result that in February 1965 a production inbalance arose within the CORONA Program.

Action

On 4 February CIA Headquarters called a meeting of all payload contractors and a coordinated delivery schedule was prepared. There remained, however, at the meeting, disagreement between Program A and NRO Staff as to what the spares requirement for CORONA should be.

Technical

Item 4. Mission M-26

Background

In the interest of meeting flight schedules established at [redacted] Headquarters, Captain Johnson of that Agency (now Major Johnson of NRO) directed the contractor to deviate from proven environmental test on CORONA Missions M-25, M-26, and M-27. The normal environmental tests were reduced from 4 days to 1 day. When the Systems Engineering Group and the CIA Technical Representative at the A/P learned of this deviation they raised strong objection and asked for the complete results of the environmental testing. The CIA Technical Representative at the A/P, after examining the test data, pointed out to the community that the deviation invalidated tests of these instruments for susceptability. System M-25 was already at the base and had been bought-off by CIA before the information on the shortened test was uncovered. A long recycle time would have been involved if it had returned to test and it was decided to allow it to fly. The booster failed and the system did not orbit.

The CIA Technical Representative refused, however, to certify M-26 for flight until a rerun of the environmental test was conducted. Captain Johnson of Program A directed the contractor to ship the Systems M-26 and M-27 to the base without additional testing and

Program A took responsibility for these systems without flight readiness having been established in order that they could meet their launch schedule. Captain Johnson bought System M-26 for the government and M-26 was flown as Mission 9062. The film returned from the mission was largely unusable due to corona static discharge marking.

Action

Subsequent to M-26's flight the recommendation of the CIA Technical Representative was accepted and System M-27 was returned to environmental test. Test showed that this system had a bad roller.

Operational

Item 1. Removal of Lt. Col. Vernard Webb as Advanced Projects Resident Manager

Background

On 2 December 1964 Lt. Col. Vernard Webb, the then CIA Resident Officer at the A/P, received military orders directing that he report on 3 December 1964 for duty at the Satellite Test Center. Reassignment on such short notice is contrary to normal military personnel policies and it can be demonstrated that no emergency need existed for Lt. Col. Webb's services at the organization to which he was assigned. Webb's departure from the A/P left the facility unexpectedly and unnecessarily undermanned at the time of an impending CORONA launch operation.

Action

CIA Headquarters sent a relief temporary duty personnel to the A/P to maintain the integrity of the payload and the effectiveness of the operational control of the mission. CIA has also been forced to take steps to prevent future complications which could arise from reassignments of military personnel on detached service.

Operational

Item 2. [redacted] (D/NRO) [redacted] Message

Background

On 30 November 1964, D/NRO directed that all pre-mission, mission, and post-mission CORONA traffic would be handled exclusively by the D/NRO/The Satellite Operations (SOC) Center in Washington and [redacted] The Satellite Test Center (STC) on the West Coast. The CORONA Mission Command Post was put at the STC, and D/NRO message [redacted] indicated that all CORONA responsibility was with [redacted] further stated that changes in the CORONA Operations Manual would be made in the near future.

A/P message [redacted] (30 Nov 1964) warned the community that the STC was not capable of handling CORONA operational problems without extensive training. The A/P facility requested that such transfer be delayed until proper cross-training could be accomplished; however, the following day, 1 December, a Satellite Operations Center message [redacted] deleted the A/P and added the STC to the CORONA Reports Control Control Manual.

On 4 December as a part of the operational function transfer, Satellite Operations Center message [redacted] directed a CORONA training exercise to be conducted. The training exercise was to begin 4 December and be completed 8 December. On 5 December, [redacted] faced with the training exercise, partially re-established the A/P in the CORONA reporting net until such time as a full transfer could be affected, Program A message [redacted] On 7 December A/P message [redacted] provided additional details concerning the STC's inadequacy to perform the CORONA support. The A/P also estimated that two to four months would be necessary to modify A/P computer programs for use at the STC. Following this message, the A/P was put back in the normal reporting channels and was asked to participate in the training exercise. The A/P was asked to participate in the training exercise. The A/P declined and on 8 December NRO message [redacted] deferred the training exercise and it was not rescheduled.

Action

The CIA representative at the A/P attempted insofar as possible to inform the community of the dangers associated with this sudden transfer of functions. CIA Headquarters, after consultation with the appropriate officials, issued directions that procedures in effect prior to NRO message [redacted] would be followed.

Operational

Item 3. The Rejected Command

Background

On Mission 1013 an unexpalined anomaly caused the instruments to take about 400 unprogrammed cycles Northbound on Revolution #1. The quality of the telemetry was poor and instrument status could not be established until after Revolution #2. It was established that although the system had started prematurely on Revolution #1, it had turned off normally when the "off" signal was received from the stored program. The next Revolution which the vehicle would be acquired was Revolution #6. The A/P CIA Operations Chief spent the ensuing five plus hours meticulously studying all available data. From these data and from a very intimate knowledge of his payload he was confident that the payload was operating normally. He decided that he would go for the operation on Revolution #6 if the SOC asked for it. When the SOC asked for Revolution #6, the A/P representative instructed the STC Field Test Force Director (FTFD) to send the appropriate command instructions to the tracking station. Telemetry on Revolution #6 was again poor. While the A/P team at the STC was evaluating payload status and discussing the matter, the FTFD, acting on telephone instructions from Program A and on advice of [redacted] called the Test Controller and directed the payload be put in "off" mode. The A/P Operations Chief attempted to recover from this situation but the vehicle faded before anyting could be accomplished. Evaluation of telemetry data confirmed that the payload had been performing normally. It continued to perform normally throughout the mission.

Operational

Item 4. The Bad Orbit

Background

The original orbit developed for Mission 1014 by Lockheed, Sunnyvale, for Program A proved to be unusable for the mission. The orbit was to have been designed for maximum Cuban coverage but due to the Program A contractor using the wrong orbital decay factor in computation, the orbit developed had serious gaps in the primary area in interest. By the time the error was discovered it was too late to correct without slipping the flight.

Action

The A/P proposed developing a suitable orbit for Cuban coverage on its computers, since it had the necessary computer programs to accomplish the job, A/P message [redacted] and could respond more rapidly. SOC message [redacted] accepted this proposal and the A/P proceeded with the computations. The new orbit was supplied to the SOC the same day.