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CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D.C.

16 SEP 1965

MEMORANDUM FOR: Chief, NRO Staff

SUBJECT : Management Organization and Control, CORONA Program

1. In the course of discussions over the past few days concerning the resolution of questions relating to the management control organization of the CORONA Program various methods were offered as solutions to the present problems. I have set forth below the major areas of concern, the possible options for solution and recommendations to establish the most logical and practical methods for controlling the technical, operational, and contractual phases of the CORONA Program.

2. The major elements and contractors of the Program are broken out below as they apply to the Payload and Booster Interface and must be given consideration in arriving at any decision.

Payload	Booster
LMSC - Spacecraft structure forward of Agena Interface including camera, SRV and other subsystems; integration, assembly tests and check-out. Also includes associated software and analytical services.	DAC - THOR Booster
ITEK - Camera and auxiliary equipment	LMSC - AGENA
FCIC - Dual/ISIC	LMSC - AGENA Peculiars
GE - Recovery Vehicle	BTL - Guidance
	LMSC - Launch Services
	Air Force - Recovery

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3. Contract Management:

From a contractual standpoint, the Air Force has successfully managed and controlled those elements of the Program relating to the Booster. In view of this, and in keeping with the new NRO Agreement, no changes are recommended to this policy.

Similarly, the CIA has successfully managed and controlled the contractual phase of those elements relating to the Payload with the exception of the Fairchild D/ISIC development contract administered by the Air Force. In addition, the Air Force has unsigned contracts with LMSC for the ISIC qualification and Systems Integration. Since all three of these contracts form integral parts of the overall Payload, it is recommended that for reasons of vesting complete Payload system responsibility in a single group, the most logical and practical method suggests that these functions be assumed by the CIA. For your information, a general statement of work describing the LMSC Payload Integration effort is attached.

During the discussions, the question of whether it might not be more efficient to consolidate all SRV procurement in one group was raised. We submit that the merits derived by such consolidation are vastly outweighed by the added interface and coordination requirements it demands, thus complicating timely resolution of integration and engineering problems. Therefore, we recommend that the present channels of R/V contracting remain unchanged.

4. Technical and Operational Management:

The present policies and procedures for Government direction and control of the CORONA Program are not well defined and, as a result, are subject to different interpretation on the part of the Government agencies involved. However, there remains on the part of both groups a motivation towards ultimate program success which is evidenced by the program's accomplishments to date.

During our discussions the present CORONA management procedures were reviewed, together with several alterations to this structure. I have recapped the options considered as follows:

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A. Continue with the present CORONA Program Management Structure.

B. Appoint a new Program Director (National) to whom the CIA Manager (Payload) and the USAF Manager (Booster) would report directly.

C. Appoint the CIA Manager as the Program Director and USAF Manager as Deputy.

D. Reverse Position of C. above.

E. Continue the present program management structure (co-managers), however, provide specific responsibilities and duties to each manager and establish a more formal relationship with general guidance towards the goals and needs of the National Reconnaissance Program. It is envisioned that the co-managers would be housed together in a Joint Operational Center located at the STC insofar as the Operational Control Phases are concerned.

It is my recommendation that the procedure proposed in C. above represents the most logical solution and should, therefore, be adopted. Further, second-tier structures should be established for Operational Control and Configuration Control. I would propose that all Operational aspects be vested under the CIA Director with an Air Force Deputy. The Configuration Control Group or Board would have the responsibility for schedules, interface requirements and major changes and would have an Air Force Director and a CIA Deputy. My secondary recommendation would be for the procedure proposed in E. above in the event the C. proposal is not compatible.

The above recommendations are in part based upon the performance and experience of CIA in conducting the technical and on-orbit camera management of the CORONA Program, and suggest that CIA has those necessary and peculiar assets to continue the successful management of this program. These are evidenced by the capabilities and past performance of the LMSC A/P under CIA direction and resident CIA personnel at A/P to provide those operational camera functions necessary for pre-launch, on-orbit and post recovery activities. It is recognized that the primary mission is the photographic collection of intelligence and the overwhelming majority of commands are directed

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to the Payload System while on orbit. It therefore follows that the agency responsible for the development of the payload is the most intimate and knowledgeable with its characteristics and performance capabilities and should control not only the primary functions, but also the secondary functions while in operation to assure insofar as possible mission attainment. This is particularly true when the Payload System is undergoing continual development and modification to improve the overall performance of the Program.

5. I appreciate the opportunity given the Agency by Dr. Flax, Mr. Reber and you during these discussions to express our views on the problems confronting the NRO in the CORONA Program. I would hope that the suggestion we have offered are constructive and useful. Please be advised that my staff and I are available, at your request, for any further discussions you may wish on these matters.

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Attachment to [redacted]

STATEMENT OF WORK

CIA contract(s) with LMSC for CORONA Payload Integration should cover the following effort:

1. Design and fabrication of space structure to incorporate the Itek and/or FCIC cameras and the G.E. SRV unit and to mate with the 241 Peculiar Agena.

2. The physical integration of the cameras and SRV's into the camera system space structure.

3. The test check-out and preparation for launch of the payload spacecraft.

4. Perform flight operation support function (soft ware).

A. Pre-flight

(1) Data reduction and analysis of all ground tests. Analyze for tested flight parameters and take appropriate action; i.e., exposure, cycle rate, thermal paint pattern, etc.

(2) Establish and verify orbital parameters, launch window, illumination, exposure and stellar field requirements, camera subsystem parameters, cycle rate requirements for FMC, camera subsystem programming, recovery system programming, payload system information for tape recorder programming, vehicle sequencing, system command generation, film consumption and orbital timer tape preparation.

(3) Coordination and integration on primary instrumentation schedule, back-up T/M instrumentation, tape recorder requirements, STC data reduction requirements, compatible payload systems and Agena data reduction requirements, preparation of operational flight requirements list, etc.

(4) Target requirements analysis to insure compatibility of requirements with capability and incorporate engineering program for Corn Targets and vehicle health.

B. In-flight

(1) Support capability for determination of actual orbital elements and ephemeris for analysis of ground track and target coverage and determination of tracking station, acquisition data for planning of command and control capability.

(2) Operational records on V/H settings, timer reset for better target acquisition.

(3) Technical analysis of subsystems performance from telemetry command, history and time data.

C. Post-flight

(1) Data reduction and analysis of payload telemetry data for engineering evaluation of the mission performance, accuracy of ephemeris, sun angle, clock performance, V/H ramp match.

(2) Provide flight data book.

5. Provide suitable direction and guidance of subsystem, field representative assisting in the integration of their unit.

6. Provide selected personnel to participate in post-flight system evaluation performance of the total system, as it may affect the payload material.

7. Provide suitable and sufficient personnel to perform the function of the payload integration contractor as follows:

A. Determine Payload System requirements.

B. Prepare overall Payload System specification.

C. Recommend required research, development and experimentation programs.

D. Establish requirements for design control specifications, acceptance test specifications, engineering analysis reports and other related reports.

E. Coordinate and document interface design agreements between the various payload associate contractors.

F. Evaluate system, subsystem and component development and test programs.

G. Prepare and coordinate technical directives, as required.

H. Evaluate and provide recommendations to associate contractors in the integration of subsystems.

I. Evaluate designs of associate contractors to assure maximum interchangeability and compatibility of associate subsystems.

J. Conduct post-flight evaluations of the material and associated data from each mission.

K. Review associate contractors work statements for completeness and compatibility.