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DEPARTMENT OF THE AIR FORCE
WASHINGTON

OFFICE OF THE UNDER SECRETARY

March 26, 1964

MEMORANDUM FOR DEPUTY SECRETARY OF DEFENSE

Attached for your information are two different histories relative to our discussion this morning. The one history, which totals 90 pages, provides a very detailed description of the development of satellite reconnaissance programs beginning in 1946 and continuing to date. While this history is very lengthy, it does contain a complete story that should be skimmed to provide you with the necessary background. It does not identify specifically the problem areas that now exist but rather alludes to them in explaining the historical events.

The second history is primarily oriented to the explanation of the development and continuation of the Configuration Control Board activity associated with the CORONA/MURAL program. When I explained to Mr. McNamara that a Configuration Control Board actually controlled the changes to the CORONA/MURAL system, he very emphatically stated that a program with the national priority afforded to CORONA would not be managed by committee. While I have not dissolved the Configuration Control Board of the CORONA program at the present time, I have required that all proposed changes be brought to my attention for approval prior to the initiation of any corrective effort.

The 90 page history has been provided to Dr. Baker and his panel, and the CCB history has been thoroughly explained to them during the numerous discussions that have taken place since 29 February.

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After you have had a chance to review these, if you feel that a further discussion period would be appropriate, Colonel Strand, my Executive Assistant, will be available to discuss any aspects of the current problem you may be interested in pursuing. In addition, General John Martin, who is Director of the NRO staff, will also be available.

Signed

Brockway McMillan

**Attachment
2 Histories**

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13 January 1964

MEMORANDUM FOR DR. McMILLAN

SUBJECT: Summary History of the Configuration Control Board Management Arrangement

In response to your request to me during my visit on 5 December in regard to some background on the CCB, I have assembled the following facts for your information.

1. Background.

a. The early CORONA management arrangement (1958-1960) can be described in the following fashion. The contract structure was composed of Lockheed as prime weapon system contractor on the overt side to the Air Force. Lockheed was also under contract to the agency as a system integrator for payload integration with ITEK and FCIC as black subcontractors to Lockheed. FCIC was responsible for camera construction, while ITEK conducted the camera subsystem and calibration tests. At that time, both the Air Force and the agency had respectively overt and covert contracts with GE for various portions of the re-entry body work. The Air Force portion at this time was concerned with bio-medical experiments and was principally employed as a cover.

b. On the government side, Colonel F. C. E. Oder was the Air Force manager at the working level under General Ritland, while Mr. Bissell retained the responsibility for major technical and policy decisions associated with system development. Program progress was generally reviewed and reported to a group composed of Purcell, Land and Baker of the President's Scientific Advisory Committee, and Bissell and Kucera of the CIA, and Dr. Herbert York of ARPA. General Ritland and General Schriever occasionally participated.

c. When the program was transferred to ARPA as part of the original cover scheme, Captain Truax, USN, was transferred from Colonel Oder's shop at BMD to act as the payload coordinator for the CIA on the ARPA staff. Due to Colonel Oder's involvement in the SENTRY/SAMOS activity, he elected to visibly get out of the program, and Colonel Red Sheppard was appointed CORONA Director at BMD. Subsequently, Colonel Sheppard was replaced by Colonel Paul Worthman.

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d. The record indicates that the CIA (Bissell) objected to the FCIC/ITEK arrangement and in May of 1960 proposed that both these contractors become associate contractors to LMSD. During the period May 1960 to September 1960, the contract and management structure was the subject of considerable discussion and various proposals.

e. In September 1960, shortly after the first CORONA success, ITEK induced Land to propose an improved CORONA camera directly to the President. This proposal was the outgrowth of various recommendations on the part of both ITEK and FCIC for product improvement and camera re-design. The first of these re-designs was the C¹ camera which had been a general product improvement of the basic C instrument. The proposal which Dr. Land took to the President was substantially a new design which had grown out of the work done by ITEK and FCIC independently to improve the basic C instrument.

f. The competitive attitude which evolved between FCIC and ITEK was basically the result of the agency's dissatisfaction with the contract structure noted above. In fact, the agency had asked for separate proposals on an improved instrument from each contractor. For this reason, the ITEK C¹¹¹ proposal, which Dr. Land sponsored, eliminated FCIC from the contract structure. ITEK got "verbal approval" on the C¹¹¹ from Land, who cited Eisenhower as the authority, and Mr. Bissell did not challenge this arrangement.

2. Creation of the CCB.

a. The creation of the CCB was an outgrowth of the negotiations which took place with the initiation of the MURAL system. The decision to undertake the MURAL camera configuration was basically made by Mr. Bissell.

b. Historically, the undertaking of a new development task was accompanied by a re-appraisal of management arrangements and working relationships. The actual agreement for the establishment of a CCB occurred at a meeting of 4 April 1961, in which the principal negotiators were Dr. Charyk and Mr. Bissell, with Colonel Worthman and Colonel Battle present. This meeting was the culmination of a number of proposals and counter-proposals, which included a variety of contractual and management arrangements. Dr. Charyk had taken the position, which ultimately proved to be the case, that Lockheed should be given a system engineering function with ITEK as an

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associate contractor. Further, Dr. Charyk had expressed a desire to keep the system engineering/technical direction responsibility in the Air Force. As a result of his desire, the BMD volunteered to assume the over-all SETD function, and on 29 April 1961, the CIA agreed to this arrangement.

c. Apparently there was some hope at that time that at the conclusion of the C¹¹¹ effort, then consisting of approximately two payloads, the M effort might be established as a separate program. If this condition had occurred, and in view of the Air Force SETD responsibility for M, it appeared to some that a clear definition of program responsibility would be relatively easy. However, when the M system was subsequently incorporated into the original program, the M arrangements were, by osmosis, diffused through CORONA.

d. I would like to point out that it was during the same time period that negotiations were in progress for the establishment of the first version of the NRO charter. During this period, a rather tenuous relationship existed between the CIA and SAFMS. The NRO was pressing for a clear definition of responsibilities and authorities in the reconnaissance area, but due to the sensitive relationships between the principal parties, the hope that the MURAL Program might evolve into a separate system, the acceptance by the CIA of an AF SETD responsibility, and the many other problems existing at the time, it was decided not to drive the CORONA issue to a clear conclusion.

e. In June of 1961, the AF SETD contract was issued to Lockheed in the black, which established the Air Force, specifically the AF Space Systems Division, as the responsible agency for systems engineering and technical direction of the MURAL effort. This contract [redacted] 708, was written under my contracting authority. The period of performance covered by this contract was April 1961 to October 1962. These arrangements were subsequently modified during March and April of 1962 to more clearly define functions and responsibilities of the SETD activities.

f. Clauses were inserted into the associate contractors' contracts which, by inclusion, obligated the associate contractors to perform contractually under the terms of the SETD agreement in the basic Lockheed contract.

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g. The CCB's relationship to the SETD contract evolved as a matter of inter-government working expediency. Contractually, the contractors were responsible to me and to the Contracting Officer whose contract was affected by SETD decisions. The only place that the CCB appears in the contractual documents is on the form or cover sheet for a technical directive, wherein a space is provided for AFSSD/LMSD coordination.

h. As the result of the 4 April meeting mentioned above and various understandings growing out of negotiations, the CORONA/MURAL CCB, by mutual agreement, consisted of a CIA representative from Headquarters (technical), a CIA representative from the field for operational considerations (Colonel Murphy), and the then BMD people from the Discoverer Program Office, initially only one person, Captain A. Johnson. Subsequent participation in an observer status by a representative from SAFMS (Major Howard) was changed when, again by mutual agreement of all parties, Major Howard was made a voting member.

i. At this point it might be well to define SETD as it was interpreted for the purposes of these arrangements. System engineering and technical direction for the program (the word program was interpreted to mean black payload matters) was the responsibility of the AF Space Systems Division. Lockheed was contracted with to provide specified system engineering and technical direction over associate contractors which included the following functions:

*

(1) Determination of system requirements and establishment of performance specifications.

(2) Recommend to the government required research, development and experimentation to achieve established objectives.

(3) With approval, establish design specifications, test specifications, engineering analysis, reports, procedures and specifications, system evaluation, subsystem and component development, preparation and coordination of technical directives, establishment of program milestones, master schedule, status reporting, system integration, establishment of interfaces, reliability, associate contractors' work statements, qualification and acceptance tests of associate contractors deliverable items, etc.

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The CCB function under this concept was to control payload configuration, act as the internal government coordinating organization, be approval authority over all technical directives issued by the contractor which affected payload, and serve as coordinating and review group for items not within the scope of the contract.

j. The LMSD established within the covert area (Advanced Projects) a SETD group which, under the direction of the CCB, had authority to issue orders to the associate contractors; however, the associate contractors had to have approval of the CIA Contracting Officer in matters which involved changes in scope of work, costs, or delivery schedule changes.

3. CCB Operation.

a. Management of the ARGON Program fell into the same general pattern as CORONA/MURAL, with the establishment of the CCB concept. Initially the ARGON arrangements had been defined in July of 1959. At that time it was agreed that the BMD/LMSD arrangements for CORONA be essentially the same as those for ARGON. The principal difference existed in the fact that over-all technical guidance on the ARGON payload was provided by DDR&E. At the time the CCB for ARGON was established, a DDR&E representative was added to the ARGON Board. The first such representative was Mr. [REDACTED]

b. With the establishment of the LANYARD Program in April of 1962, Dr. Charyk proposed and the CIA (Scoville) agreed that I would be responsible for all technical management aspects of LANYARD, including payloads; that the CCB system of MURAL would be continued; that the CIA would continue to have responsibility for mission planning and camera on-orbit operations. Further, the CIA would be responsible for program security, covert contracting and extending the CORONA teletype net to include all LANYARD participants. In my development plan for the conduct of the LANYARD Program I established, to the best of my knowledge, the first formal description of the CCB in a government document. This description is attached. Contractually, this was implemented in substantially the same fashion as the MURAL SETD contract, with the exception that Lockheed was given a systems engineering responsibility, rather than a systems engineering and technical direction responsibility.

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c. In October of 1962, as a matter of convenience and working expediency from a contractual viewpoint, I transferred the administration of the SE contract for CORONA/MURAL to the CIA Contracts Officer stationed here (Mr. [REDACTED]). At that time the CORONA/MURAL contract was modified as in the case of LANYARD to give Lockheed a systems engineering role only. This contract was identified [REDACTED] 942, with a period of performance from October to June of 1963. The contract was renewed by Letter Contract on 1 July 1963 to run to 30 June 1964, and is due for definitization in the immediate future. This document is identified as [REDACTED] 28. Attachment 2 is the Statement of Work, Exhibit A, which was part of [REDACTED] 942 and has been carried on under the Letter Contract [REDACTED] 28. Also, in a similar fashion, Attachment 3 has been included to carry over from the old contract to the Letter Contract. This is the operating procedure for system engineering and technical direction dated 10 June 1963. This document is a somewhat detailed description of the operation of the TD function by the contractor, and responsibilities of the CCB. References to the CCB in the contractual document are again quite minimal. These are CCB approval of TDs in paragraph III. 3; initiation of TDs in paragraph V. 2; and the provision for AF CCB signatures on the TD authorization sheet.

[REDACTED]
ROBERT E. GREENE
Major General, USAF
Director, Program A

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THE FOLLOWING IS EXTRACTED FROM PROGRAM CONCEPT DOCUMENT ATTACHED TO SAFSP MEMORANDUM TO DR. CEARYK:

..... C. Internal Government Arrangements

1. Technical Program Management (SE/TD): Technical responsibilities for the accomplishment of the LANYARD Program rests with the Director, Special Projects, OSAF. In this capacity the Director, Special Projects will discharge all major technical decisions affecting the development, modification and delivery rates of all components of this system. Specific detailed technical responsibilities will be delegated to the Director, LANYARD Program for the day-to-day operation of the technical aspects of the program. A Configuration Control Board will be constituted from representatives of the participating organizations to support, advise, and counsel the Director, Special Projects and the Director, LANYARD Program. The CCB will review and assess all proposed changes and modifications to the payload, items affecting the on-orbit operation of the payload, and the content of the final product. The Configuration Control Board actions which do not involve a change in contract scope, alter payload characteristics or performance, do not affect delivery or launch schedules, and which have no appreciable effect on cost will be submitted to the Director, LANYARD Program for final approval. The Configuration Control Board actions involving a change in contractual scope, costs in excess of [redacted] provisions to launch schedules or payload performance, will be submitted through the Director, LANYARD Program to the Director, Special Projects for final approval. For CCB procedures, see Annex A.

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