[redacted] TOP SECRET

[redacted]

Photographic Reconnaissance Systems

COMBINED PROGRAM CALL

In August 1969, the CORONA and [redacted] Project Offices were combined into the single office of Photographic Reconnaissance Systems. This reorganization had a two-fold purpose: (1) to provide a more effective use of technical personnel; and (2) to provide for a smooth transition in the phase-out of CORONA and initial operation of [redacted]

The PRS Project Office has been organized as an integrated office with all personnel having responsibilities in both the CORONA and [redacted] projects. This program call response combines personnel and funding requirements into a single requirement covering both programs. The establishment of [redacted] as an operating system and the phase-out of CORONA is scheduled for calendar year 1971.

It is planned to relocate the CORONA manufacturing, assembly, and test functions from the present Advanced Projects (AP) facility at Palo Alto, California, to the Lockheed Missile Systems Company complex at Sunnyvale, California. This move will provide for the consolidation of these CORONA and [redacted] functions in a single geographical area and will permit consolidation of communications and computing requirements. In this submission the CORONA and [redacted] Projects are discussed separately; however, the resources required are combined into a single requirement.

[redacted]

[redacted]

Progress Towards Objectives

July 1968 - December 1969

PROJECT: CORONA

Overall objectives during the report period were to maintain satellite photographic search and surveillance over denied areas in response to USIB requirements and to make system improvements yielding better product quality, effectiveness and versatility.

During the period ten out of ten CORONA missions (seven J-1's and three J-3's) were successfully launched and recovered. The year 1968 marked the 106 mission for CORONA.

During the 12-month period November 1968 through November 1969, eight CORONA and [redacted] missions were flown. These [redacted] missions identified 198 new Soviet ICBM silos of which 121 were identified by CORONA as follows: 44 SS-9 (34 by CORONA), 136 SS-11 (82 by CORONA), and 18 SS-13 (5 by CORONA). In addition, of the 57 new SS-11 silos located in MRBM and IRBM complexes, 40 were identified by CORONA. Mission 1106 in February 1969 alerted us to the first new SS-9 group since May 1968. CORONA continues to supply target location data resulting in increased efficiency in [redacted] operations.

System adjustments have been made and tested to utilize ultra thin base (UTB) film, which increases film capacity by 50 percent, in the J-3 system. Based on analysis of UTB performance in previous flights and on the findings

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[redacted]

of the UTB Task Team, an extensive test program including requalification of the modified UTB-configured payload has been successfully conducted. As a result, it has been recommended to the D/NRO that UTB be flown in the CR-11 flight, and, if successful, be considered the standard film for all future J-3 flights except for CR-10, which is now configured as a Standard Thin Base (STB) payload.

Mission 1104, in August 1968, carried an 800-foot tag-on strip of SO-180 (IR camouflage detection film). This was the first time that this type of photography had been attempted from satellite altitudes. Due to a malfunction, a large portion of this film was degraded; however, on those resolutions not affected by the malfunction, the film performed as expected.

Mission 1105, in November 1968, was the first to carry a full load of UTB, with the exception of a 500-foot tag-on strip of SO-121 Ektachrome color on one side.

This year marked the first use of a significant amount of color film. Flight 1106 carried a 2000 foot tag-on load of SO-121 Ektachrome color, which gave successful results. The collection value of color film in satellite systems is being studies by the intelligence community. A detailed assessment is scheduled for completion in January 1970.

Flight 1106 also marked the successful maiden flight of the Digital Shift Register Command System. The Shift Register allows in-flight selection of camera operating locations, permitting more flexibility in targeting and in capitalizing on weather predictions.

[redacted]

The second [redacted] mission successfully used Mission 1106 as a launch vehicle.

Objectives and Program Plans FY 72-76

1. Collection of Intelligence

d. Imagery

1) Photographic

PROJECT: CORONA

Objective: The objective is to maintain satellite photographic search and surveillance over denied areas in response to USIB requirements.

Program Plan:

Method of Approach: The space vehicle, which includes the payload and the AGENA control vehicle, is launched from Vandenberg Air Force Base by a thrust-augmented THORAD booster. The payload consists of two 24-inch focal length stereo panoramic cameras, two reentry vehicles, and the structure housing these vehicles and mating with the AGENA. The system is commanded and controlled through the worldwide space tracking network, contains 160 pounds of film, and achieves roughly 10 million square miles of coverage per mission. Recovery of the two CORONA buckets for retrieval of exposed film is generally by air snatch north of Hawaii.

[redacted]

[redacted]

[redacted]

The NRO, with the approval of the EXCOM, has decided the CORONA launch schedule will be stretched out to five (5) launches in FY's 70 and 71 and two (2) launches in FY 72. The CORONA schedule as scheduled by the D/NRO is:

	FY 70	FY 71	FY 72
Launch	5	5	2

Last scheduled launch is November 1971.

During the last half of FY 72, Project CORONA will be closed out, and final disposition of residual material, equipment, and other assets will be made to on-going projects.

Coordination, Joint Planning, and Requirements: The Project is under the direction of NRO, with overall planning and schedule management by the Air Force SPD. Responsibilities are divided between the Air Force and CIA. The former is responsible for the THORAD booster, the AGENA, and the mapping camera, (PAL IMAGERY STELLAR INDEX CAMERA DISIC) CIA has total payload responsibility, including integration of DISIC into the payload.

Missions are planned in response to USIB requirements.

Risks and Uncertainties: The reliability achieved by the ~~Project~~ SYSTEM has been outstanding. The major area of risk relates to maintaining continuity of intelligence collection. There must be sufficient overlap between CORONA and [redacted] to ensure that a reliable search and surveillance system is at the disposal of the intelligence community. In the

[redacted]

[redacted]

[redacted]

interim, there will be risk of reliability degradation due to assignment of experienced industry personnel to other programs as CORONA phases out. The Project Office will make a strong effort to keep that risk at a minimum.

The FY 1972 effort is rated as absolutely essential to attainment of the specified objective.

Alternatives Considered: The principal alternatives, insofar as CIA resources are concerned, relate to staffing level in FY 1972. This, in turn, depends upon the need to protect against the contingency of [redacted] schedule slippage.

[redacted]

[redacted]

NOTICE OF REMOVED PAGES

Pages 7 through 16 are not provided because their full text does not contain CORONA, ARGON, LANYARD programmatic information.