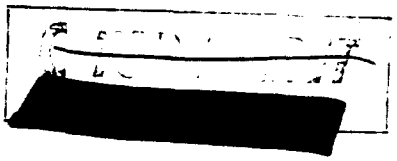
PROJECT CORONA

1. Description

CORONA is a low altitude photographic satellite search and surveilance system developed under the sponsorship of, and operated by the Central Intelligence Agency for the National Reconnaissance Program. Two main panoramic instruments mounted to a relative convergence angle of 30° provide stereo photography with a ground resolution ranging from 6 to 20 feet, or an average of approximately 13 feet, when flown at an average perigee of 100 nm and an average apogee of 210 nm.

2. Function

A payload that includes two Panoramic Cameras, two Stellar Index Cameras, and two Recovery Vehicles is mated with a modified AGENA Space Craft. The system is boosted by a THORAD.



3. Responsibility

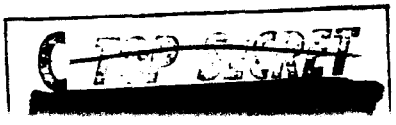
On 22 June 1966, the following Program Management was directed by the Director, National Reconnaissance Office:

A. The Director, [redacted] is responsible for system management.

B. The Director of Reconnaissance, CIA, has the responsibility of directing and supervising the development and production of the CORONA pay load sub-assembly. By definition, this includes the main Panoramic Cameras, the Stellar Index Cameras, the film transport mechanisms, the Recovery Vehicles, the supporting structure and shell, and pay load integration and systems testing.

In addition, CIA is responsible for pay load sub-assembly mating and pre-launch activities at VAFB; for certifying pay load sub-assembly readiness; and for acting as the principal pay load sub-assembly assistant to [redacted] during pre-mission planning, on-orbit operations, and post mission analysis.

C. The USAF is responsible for the AGENA and booster, and for launch and recovery.



[redacted]

4. CIA Contractors

A. Lockheed Missile and Space Company/Advanced Projects performs camera system integration, space craft barrel manufacture, assembly and test of the camera system, and analytical and computer support related to operational missions.

B. ITEK manufactures Panoramic Camera Instruments, including supply and take-up cassettes and associated electronics, and performs a sub-systems test. In addition, ITEK manufactures the Stellar Index Camera. These components are accepted at the manufacturer's by CIA and are subsequently shipped to LMSC for integration, assembly, and check-out.

C. General Electric manufactures and tests Space Recovery Vehicles. These SRV's are accepted at the manufacturer's by CIA and are subsequently shipped to LMSC for integration, assembly, and check-out.

D. Eastman Kodak manufactures film which is shipped to LMSC for loading into the main camera system. [redacted]

[redacted]

5. United States Air Force Contractors

USAF has the following contractors:

A. LMSC for the AGENA Space Craft Vehicle.

B. Bell Telephone Laboratories for the Guidance System.

C. Douglas Aircraft Company for the THOR boosters.

Strap-on bottles manufactured by Thiokal are accepted by Army, delivered to Air Force, and finally delivered GFE to Douglas for mounting of the THORAD configuration.

6. J-1/J-3 Comparison

The basic description of the J-3 is essentially the same as the J-1. Improvements in the dynamic operating characteristics, exposure control, Petzval lenses, and the capability to use ultra-thin-base film and to operate at lower altitudes are notable differences. Procurement sources and responsibilities are unchanged except that the ITEK Stellar Index Camera procured by CIA has been replaced by the DISIC, (Dual Improved Stellar Index Camera) manufactured by Fairchild under an Air Force contract.