0060-73

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UNITED STATES OF AMERICA

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1 HEXAGON PROGRAM OBJECTIVES

A. The Department of the Air Force has chosen HEXAGON as the code word indicator for this program. HEXAGON when used in this context is classified SECRET.

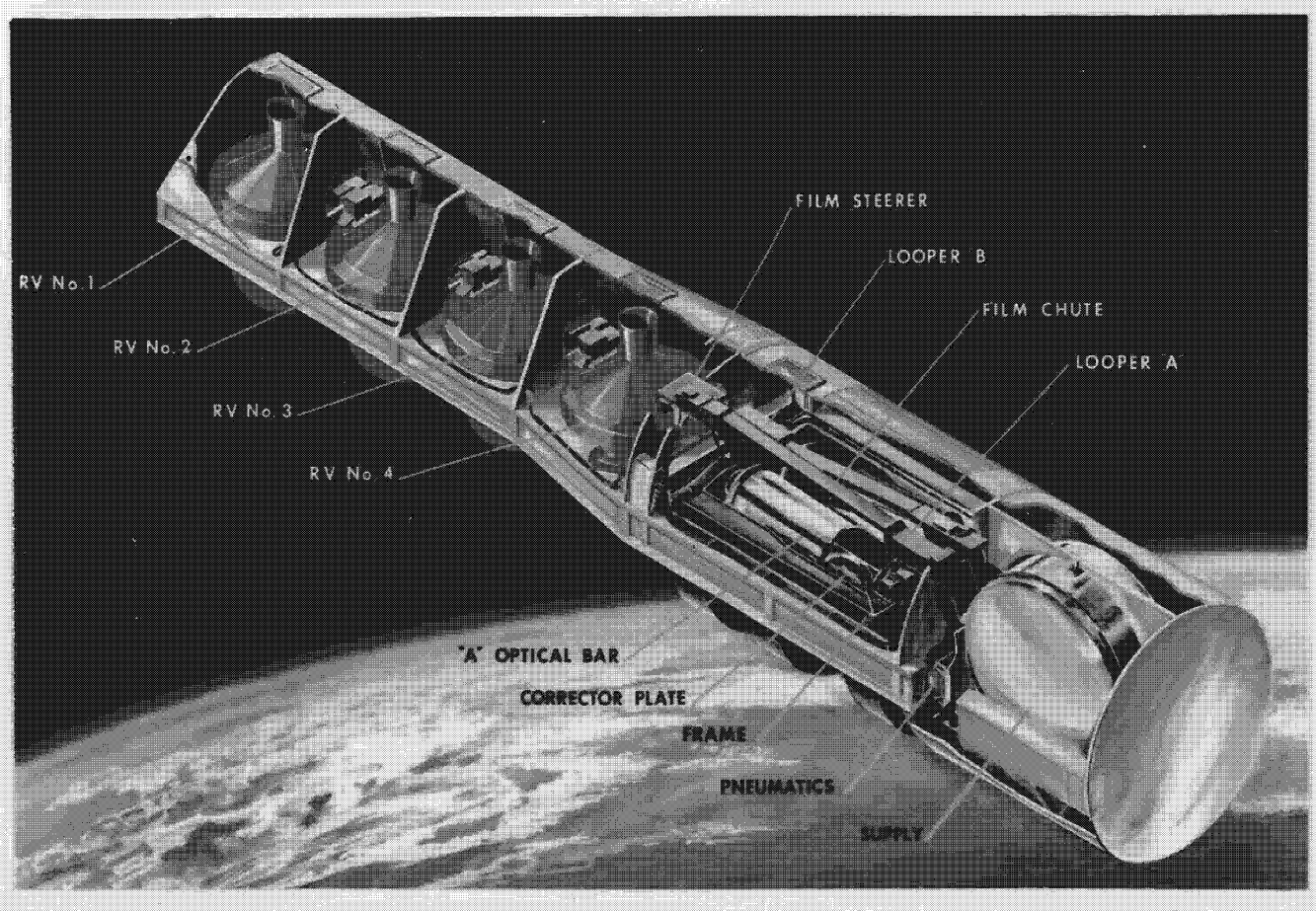
B. The HEXAGON Program has as its objective the covert development of a Sensor Subsystem of a General Search and Surveillance System. The primary objective of the HEXAGON photographic reconnaissance mission is to attain high-resolution stereoscopic coverage from an orbiting satellite vehicle of selected areas on the earth's surface.

SENSOR SUBSYSTEM

The vehicle will be launched into orbit by a Titan III D and will be made operational by ground command. Upon completion of a specific portion of the mission, or as required, exposed film can be recovered by one of four re-entry vehicles which are de-orbited by ground command.

The sensor portion of the vehicle incorporates two independant, side-by-side panoramic scan cameras and associated film supply and take-up that provide the required stereoscopic coverage during normal operation, or, in the event of a camera failure, can operate in the monoscopic mode.

SENSOR SUBSYSTEM



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Approved for Release: 2018/11/08 C05116345
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HEXAGON BRIEFING

This brochure pertains to the Top Secret activity known as Project HEXAGON. The term HEXAGON used in this context is classified Secret.

This Project is one of the most sensitive endeavors of the United States today. There can be no doubt of its potential value to the defense stature and security of the United States. Persons participating in Project HEXAGON must accept the premise that its success is dependent upon individual understanding of and adherence to security conditions set forth in this brochure.

MAJOR ASSEMBLIES

Essentially, the Sensor Subsystem (SS) is comprised of three major assembly groups: The Supply Assembly which provides film to both cameras, the Two-Camera Assembly (TCA) containing the two panoramic scan camera systems, and four (4) Take-Up Assemblies that accumlate exposed film into re-entry vechicles.

The SS, excluding support structures, weighs approximately 4,900 pounds and carries an 1,800 pound film payload. The total Sensor Subsystem is 42 feet long.

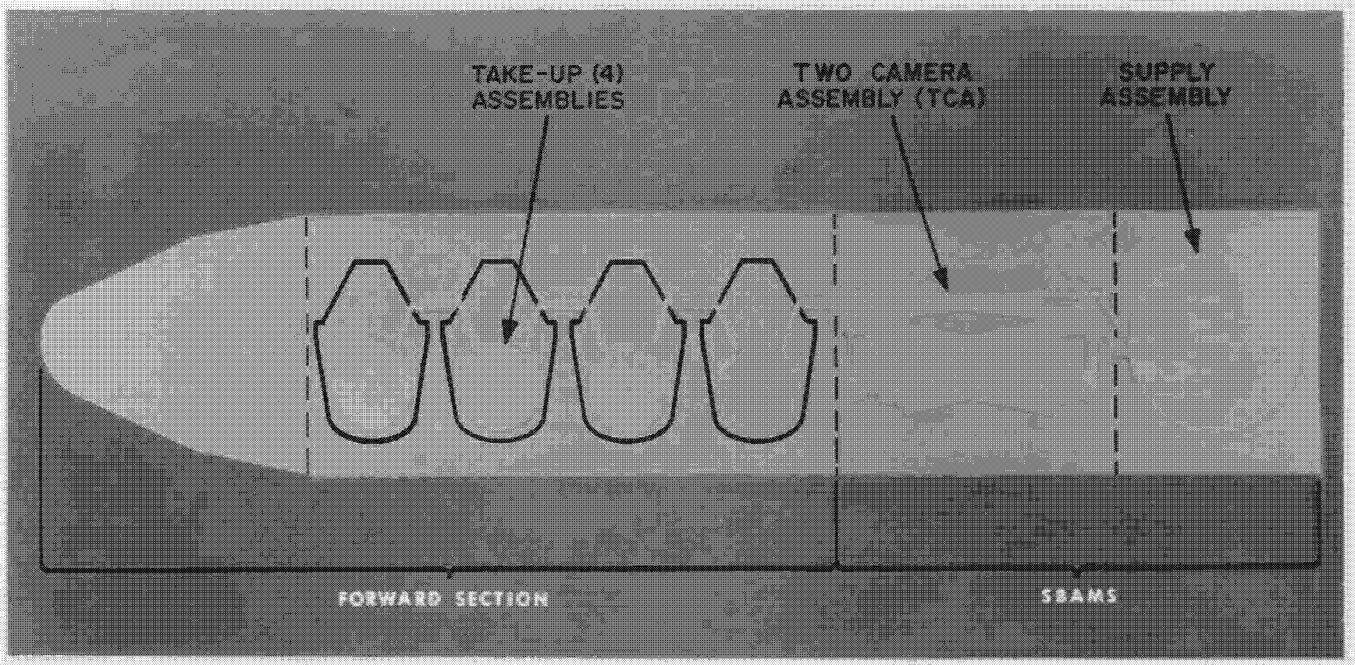
TWO CAMERA ASSEMBLY (TCA)

The Two Camera Assembly (TCA) basically consists of the two independant cameras (optical bars), a frame assembly, elements of the film transport system, and the frame mounted electronics.

The optical bars are mounted in the frame on two end bearings that allow the entire optical bar to rotate as a unit with the scanning aperture. The "A" or port camera is mounted for forward scanning, and the "B" or starboard camera is mounted for scanning aft. This orientation provides the scan phase relationship necessary for stereoscopic operation.

The frame assembly supports the cameras and associated film transport mechanism and is designed to isolate the cameras from excessive dynamic or thermal effects imposed by the outer vehicle (Satellite Basic Assembly). Electronics required to drive the optical bars and to transport film through the TCA are mounted on this frame.

MAJOR ASSEMBLIES



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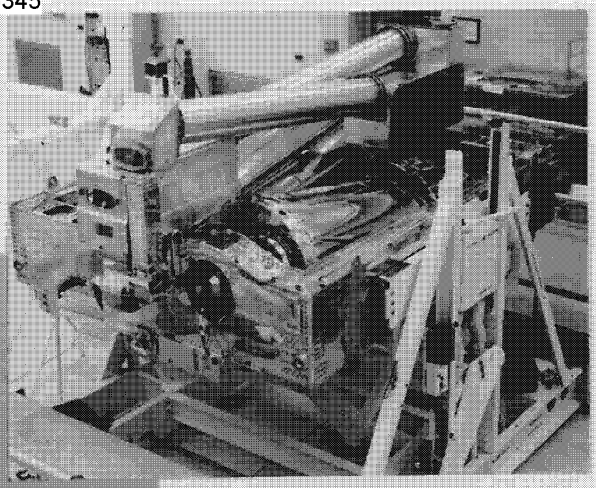
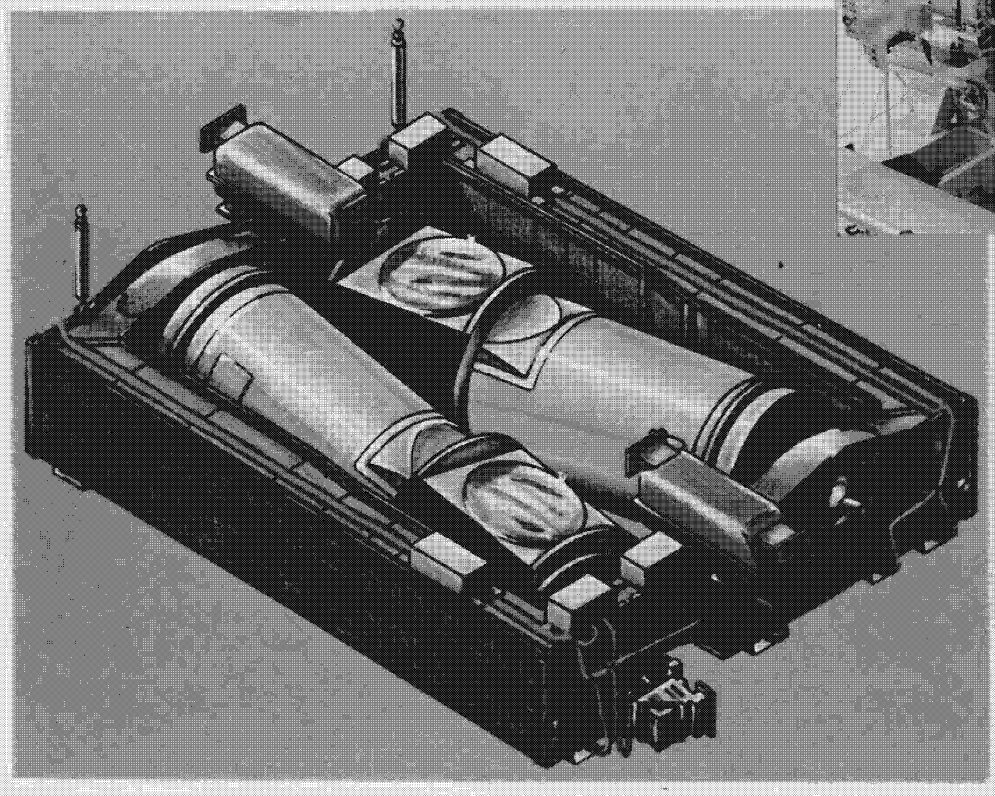
TWO-CAMERA ASSEMBLY (TCA)





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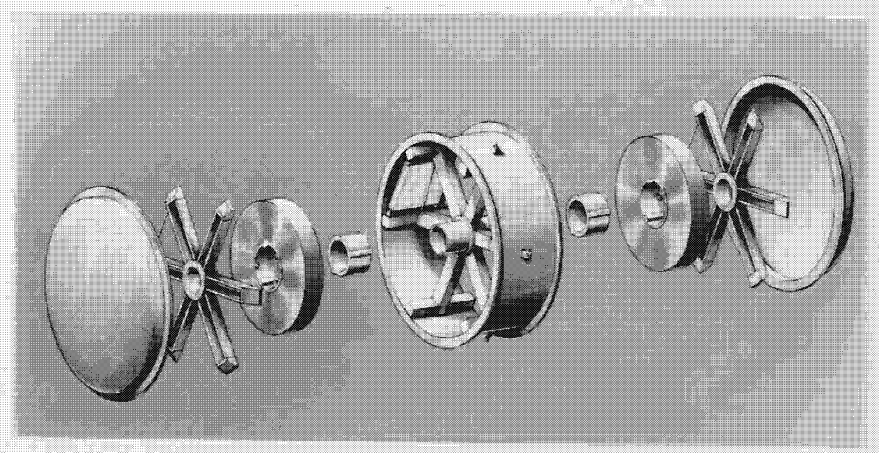
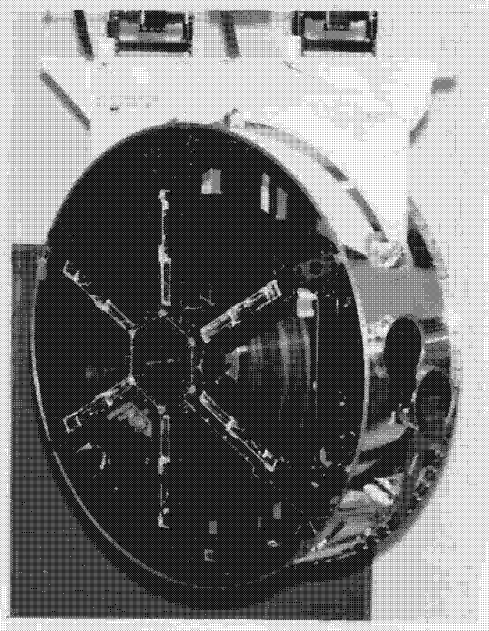
SUPPLY ASSEMBLY

The Supply Assembly is designed to support and protect the 1,800 pound Sensor Subsystem film payload in all possible environmental and loading conditions. Two independant, counter-rotating spools, each containing 104,000 feet of film, are mounted on a bulkhead and supply film to the cameras.

The entire assembly, including electronics, is housed in a light and pressure tight enclosure. Film exits from the enclosure through a similarly protected vestibule containing the rollers and air bars necessary to define the film path. This vestibule, in turn, mates to the entrance of film path chutes in the TCA.

SUPPLY ASSEMBLY





Full Supply Reel

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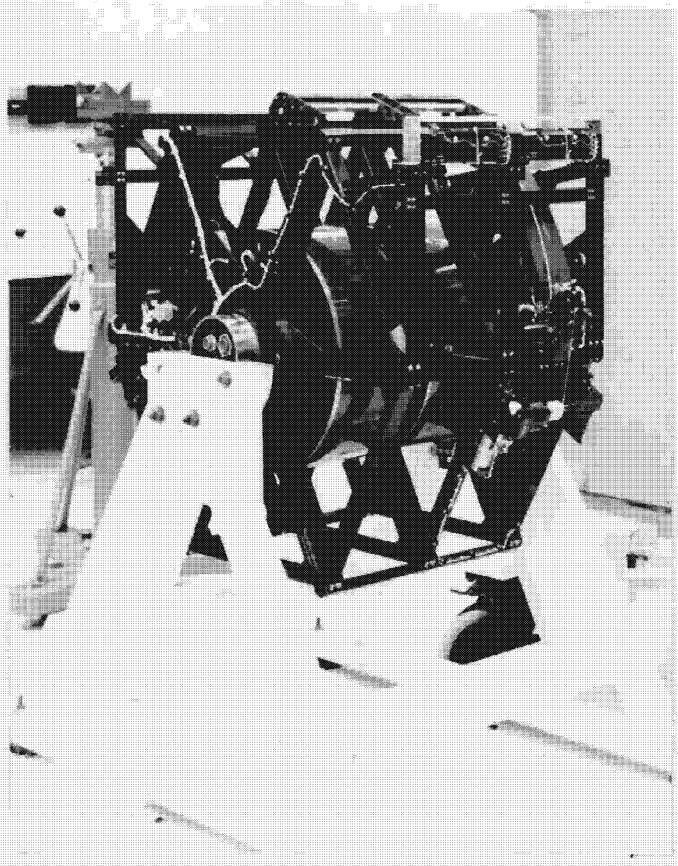
TAKE - UP ASSEMBLY

Exposed film is retrived from the camera by the Take-Up Assemblies housed in the four re-entry vehicles. This assembly is slaved by a servo to wind film at a constant rate. A series of rollers pass film through the three Take-Ups closest to the TCA and into the outermost assembly in RV-4.

When this vehicle contains a full payload, the film is cut and the door on RV-4 is closed. The film is then accumulated in RV-3. This process is repeated for successive RV's until the total mission payload is expended. Each RV, when full, is de-orbited on ground command and directed to a recovery area.



TAKE-UP ASSEMBLY

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HISTORICAL AND CORPORATE

BACKGROUND OF PROGRAM

I THE HISTORICAL AND CORPORATE BACKGROUND OF THE HEXAGON PROGRAM

A. HISTORY:

1. In mid October, 1966, Perkin-Elmer was notified that it had been selected as the winner in a competition for the award of a government contract.

2. Shortly thereafter, a press release was authorized indicating that Perkin-Elmer had won a classified contract worth approximately $30 million which was programmed to run for a period of three years.

B. ACTUAL:

1. Perkin-Elmer, however, had been notified that it had won a classified and a covert Department of the Air Force contract which was worth approximately $200 million and which would run for a period of five or more years.

2. The reason for the statistical subterfuge was due to the covert nature of the Program. No information could be authorized for release that would lend credence to the existence of the Program.

II DEFINITIONS

The Department of the Air Force differentiates between classified and covert. The HEXAGON Program is both a classified and covert effort.

A. CLASSIFIED:

The actual speed or range of an Antiballistic Missile, for example, is classified. However, the world is aware that the Department of Defense is working to design and develop the A.B.M. The Government, thus, chose to dignify the existence of an effort that has many classified aspects.

B. COVERT:

The Air Force chose not to dignify the existence of the HEXAGON Program. Neither may Perkin-Elmer acknowledge the possession of a classified Air Force Program. Thus, when a program's existence is not dignified it is said to be covert.

III PROBLEM TASKS

A. Since the $200 million covert program was awarded to a Corporation whose yearly dollar volume (in 1966 at the time of contract award) was approximately $80 million, "trying to hide" the program's existence is a difficult task requiring the total co-operation of all witting personnel. It is felt that the way to hide a large program is to create a situation wherein one may reply to queries by asking: "What program?".

B. To that end, Perkin-Elmer created a Division and named it the Optical Technology Division. The creation of the Optical Technology Division was never formally announced. It was planned to get the Optical Technology Division into the Corporate structure with as little publicity as possible.

C. The $200 million contract was analyzed and work orders were defined. In fact, eighteen (18) separate work orders were divorced from one another. Some of these contracts (work orders) were classified. However, some were unclassified while others were Company Private and in the area of Research and Development.

IV COVER

A. A cover story was, thereby, established. The cover story was based on plurality. By stressing a multiplicity of contracts there is no dignification of a single large contract. Multiplicity of contracts more plausibly promotes the idea of varied work (i.e; ... classified, unclassified, and Company Private efforts).

It is a theory of plurality that shall be stressed by witting employees when approached on the activities of the Optical Technology Division. No other information shall be made available.

HEXAGON RESTRICTIONS AND REQUIREMENTS

II HEXAGON RESTRICTIONS AND REQUIREMENTS

A. Access to information on the HEXAGON Program is restricted to an absolute minimum number of people. The success of the PROGRAM depends upon an effective security system. To that end, the Department of the Air Force has established the following principles:

1. A unique Access Approval is required prior to authorizing access to HEXAGON information. A Secret or Top Secret clearance shall not suffice or be allowed in lieu of a HEXAGON Access Approval.

2. A strict "need-to-know" principle is enforced. Access Approvals are not granted as a matter of courtesy or in deference to rank or position. A positive contribution to the Program's success is the only justification for the granting of an Access Approval.

3. The approval status of every individual shall be verified prior to discussing HEXAGON information or allowing entry into a HEXAGON facility.

4. All HEXAGON information must be protected. Particular caution must be taken to never list the HEXAGON Access Approval or HEXAGON information on future resume's or personal history statements.

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