

[REDACTED] Mr. [REDACTED] This [REDACTED] in [REDACTED] 25 OCT 1963 [REDACTED] Bledobudji [REDACTED] Books. 90.

CORONA M

The CORONA M (R-7) program provides a capability for the launch of previously unscheduled general search satellites during times of tension or emergency. Of a total of six systems procured, one will be maintained on its pad at R-7 day condition while a second is between R-15 and R-7 condition. The remaining four systems provide the refire capability.

Two standard CORONA 24" focal length f3.5 panoramic cameras, mounted at 30° convergent angle, provide continuous stereoscopic photography at 10-13 ft nominal ground resolution. Each camera carries 7800' of 70 mm thin base film which provides ^{about} 4 million square miles (naut) of coverage. In addition framing and stellar cameras are carried to enhance the use of the panoramic photography.

This program uses the standard recovery capsule, AGENA satellite, THOR booster combination. Primary means of recovery after four days on orbit operation is by aerial retrieval near Hawaii. Surface recovery aids are available as backup if required.

Twenty-three CORONA M's have been launched since February 1962 and 19 have been recovered.

CORONA J

The CORONA J program adds a dual recovery capability to standard CORONA MURAL general search system doubling the film capacity of the system and providing up to 30 days between launch and recovery of the second capsule. After four days of active operation and first capsule recovery, the satellite

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can be put-to-sleep for up to 22 days. It is reactivated on command from the ground for a second four day photographic operation and a second recovery.

The standard CORONA payload - two 24" f3.5 panoramic cameras mounted at 30° convergent angle provide continuous stereo photography of 10-13' nominal resolution. Total film load for each camera is 15,600'. Framing and stellar cameras are carried.

The weight of two recovery capsules, camera payload and AGENA requires the use of the improved THOR Booster - the standard THOR with three solid rockets of 52,000 lbs. thrust strapped on - to get into orbit. This booster has had nine launches with eight successes.

The J system is still in the R&D phase. On the two launches to date the first recoveries have been successful but the second ones have not due to malfunctions in peripheral hardware.

The R&D phase will consist of three launches; the "operational" program provides twelve launches per year in FY 1964 through 1969.

The CORONA J (R-7) program provides the emergency launch capability of dual recovery payloads on improved THORS in the same manner as described in the CORONA (R-7) program. A total of three launches is provided.

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LANYARD

The LANYARD program provides 5' ground resolution stereo photography using a 66" focal length optical system.

The first two launches, in FY 1963, failed due to malfunctions in the AGENA. The third in FY 1964 was successful and returned photography which approached the design goal.

ARGON

ARGON is a photographic project for geodetic and mapping purposes. It consists of a 3" focal length frame-type terrain camera of high geometric fidelity, supplemented by a 3" focal length stellar camera, both recording images on a single roll of 5" film. The terrain camera capacity is 6000 photographs (235 x 235 mm format) covering 166 million square miles in a 4-day mission. Stereo is provided by overlap in the photographs. Expected positional accuracy obtainable from this photograph (alone) is 750 feet, and expected contour accuracy is 1500 feet. The same basic THOR/AGENA vehicle and recovery system is used for ARGON as for CORONA although the improved THOR can be used. Of a total of five launches since January 1962, three have been successfully recovered, one in FY 1964. Another launch is scheduled for October 1963. In addition four payloads are being procured in FY 1964 and 1965 to provide mapping capability if it is required.

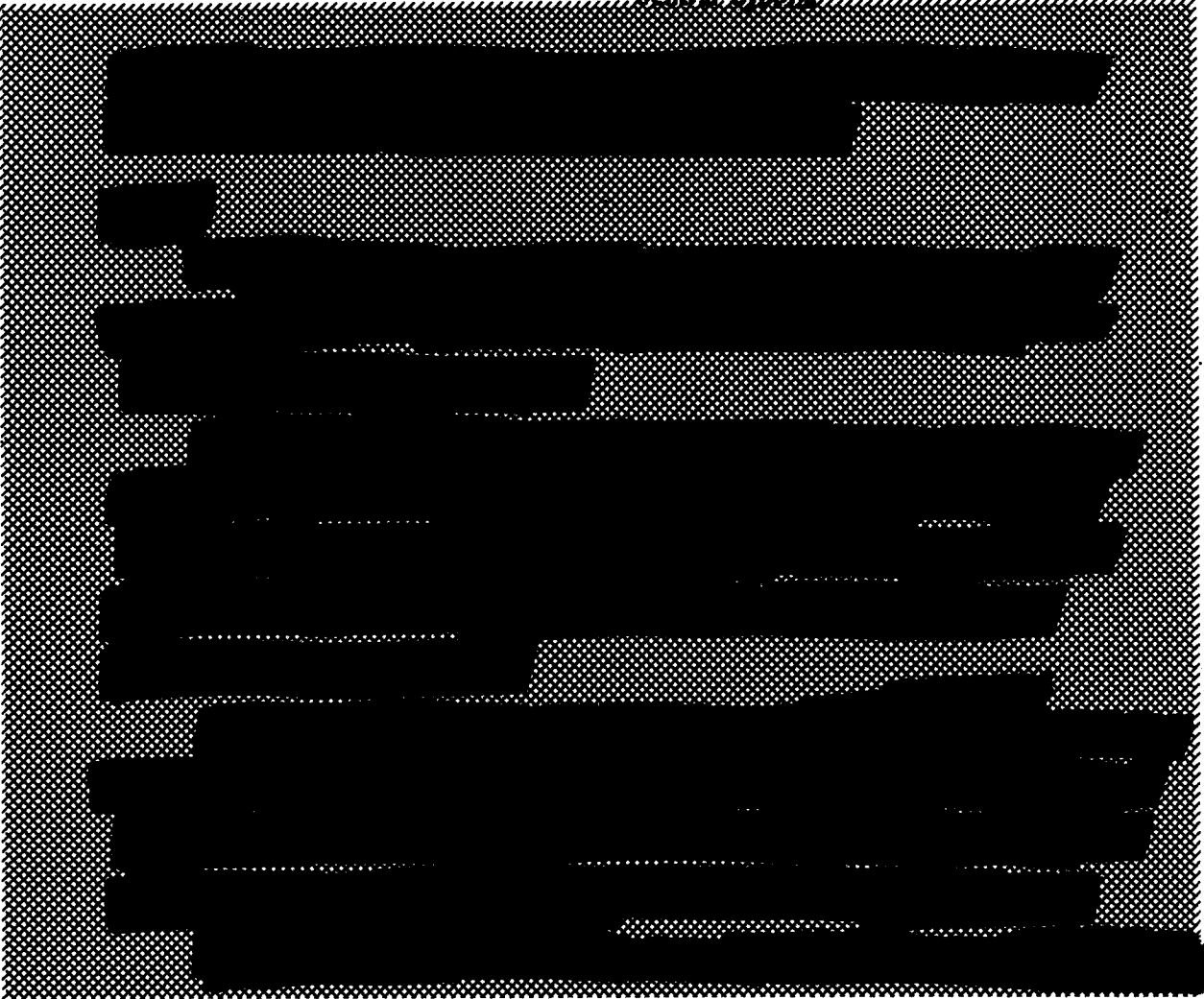
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417

The 417 Project has as its objective the development and maintenance of an operational capability of providing daily cloud cover information from over the USSR and China in direct support of the National Reconnaissance Program.

The 417 space vehicle weighs 109 lbs. and is spin stabilized in a 400-500 nm sun synchronous polar orbit. Electrical power is obtained from solar cells. Through magnetic tape recording of a video image, vertical cloud

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cover pictures with about one mile resolution are provided to readout stations at Loring AFB, Maine and Fairchild AFB, Washington. The data is transmitted to the Global Weather Central at Offutt AFB, Nebraska for incorporation into daily operational forecasts supporting both the NRP and SAC operations.

The 417 capability has been demonstrated by the second test wherein Soviet Bloc weather data was provided for over seven months. However, difficulties with the Scout booster have seriously limited system operation and the next launch will utilize the THOR-AGENA as a booster instead of the Scout.

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