MEMORANDUM FOR: COL LINDSAY   04 JANUARY 1980
                  LTCOL PAULSON ←

SUBJECT: TK Description of the DAMON Program

    The attached TK Description of the DAMON Program for the TENCAP
organizations to [   ] 1648. A separate TK compartment like [   ] should   (b)(1)
be established to limit access to this information. We currently have no   (b)(3)
TK designator assigned to DAMON.

                                                                              (b)(3)

                                            Atch:
Assistant Director of Applied Technology   TK Description (TK)

CC & D [handwritten]

6-7 [handwritten]

TK sub compartment [handwritten]

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_____ SYSTEM OVERVIEW

1. Program Objective

_____ is an experimental program using a KH-9 panoramic camera mounted in the space shuttle orbiter's bay. The program objectives are:

O Establish the precedent of using the Space Transportation System (STS) as a reconnaissance platform;

O Develop technical data and operational experience required for integration and operation of future systems in the STS;

O Acquire useful intelligence to augment current systems;

O Define the roles in which man may interact with the system to enhance mission accomplishment;

O Evaluate the benefits of orbiter support subsystems.

2. Program Capability

Two flights are planned with the first scheduled for the second quarter CY 1982. Each mission will be a maximum of six-days duration and provide at least two accesses to ground locations between 60°N to 60°S. The _____ system, flying at 150 MNI cirvular can carry up to 80,000 ft of black and white, color _____ The resultant stereo imagery will (b)(1) (b)(3) have a NIIRS rating between 2.2 and 4.8 with a mean of 3.5. A scene of 310 NMI X 11 NMI can be acquired in one frame. Any number of contiguous frames can be taken to provide large area synoptic coverage. Stereo and monoscopic imagery can be acquired.
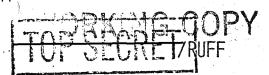
3. Applications

_____ imagery can be used to:

O Provide a broad area synoptic overview of hostile maneuvers, deployments and reinforcing activity;

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worldwide requirements;

O Map underwater coastal regions with color film;

O Counter camouflage, concealment and deception (CC&D) activities

thru the use of color [   ]

(b)(1)
(b)(3)

O Augment the normal KH-9 search mission;

O Provide additional search coverage of Africa, South America and

other Third World areas.

Exploitation of high interest targets can be accomplished within sixty (60)

hours of mission completion.

4. System Operations

STS launch, orbit insertion and landing activities will be controlled

by Johnson Space Center. Camera system control will be performed using

the existing KH-9 system control mechanisms. Tasking requirements will be

provided by the national tasking authority through existing channels and

from these requirements, the _____ control center will generate operating

commands which will be transmitted to the camera system for execution. These

commands can be updated every 90 minutes.

5. Camera Description

The KH-9 panoramic camera system that is used in the _____ program

consists of dual panoramic cameras mounted side by side. The part camera

unit looks forware 10° from vertical, and the starboard looks aft 10°, the

two forming a 20° stereo convergence angle. Both units simultaneously scan

across track in opposite directions. A scan secter of 30°, 60°, 90°, or

120° can be programmed for any one camera operation. The programmed scan

secter can be centered at 0°, ±15°, ±30°, or ±45° across the flight track.