

~~TOP SECRET~~

HEXAGON

HANDLE VIA
BYEMAN
CONTROL SYSTEM~~IS~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

20 December 1967

MEMORANDUM FOR MAJOR GENERAL ROBERT R. GLASS, U.S.A.
ACTING DIRECTOR, DIASUBJECT: Proposed JCS Action on the Stellar and Terrain
Frame Subsystem for HEXAGON

This is with regard to your memorandum of 18 December 1967 (BYE-5473-67) to the Chairman, Joint Chiefs of Staff, which proposed a memorandum to the Deputy Secretary of Defense on the 12 inch frame camera for HEXAGON.

Dr. Flax has reviewed these documents and asked that we provide the necessary information to correct a possible misimpression from paragraph 3 of your memorandum, and paragraph 2 of the proposed memorandum to the Deputy Secretary of Defense.

The NRO estimate of the cost differential between employing either of the two existing 3 inch cameras and the 12 inch system has not changed. This cost differential was defined in the attachment to the DNRO memorandum of 4 December 1967 (BYE-52815-67) to the DCI, a copy of which was available to the DIAMC members of the COMIREX and the MC&G Working Group.

The statement that it is more costly to delay the integration of the 12 inch system to some future year than to proceed at this time is correct if no provisions are made for later integration, and a redesign for retrofit is required. The NRO has included a stellar terrain frame camera subsystem in the HEXAGON design from the inception of the program. The present satellite vehicle baseline configuration includes all

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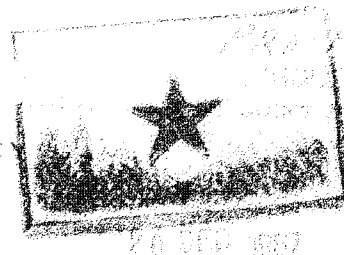
Dr. Flax has requested that the proposed memorandum to the Deputy Secretary of Defense be revised to reflect the cost and design status summarized above.

for *Russell A. Berg*
RUSSELL A. BERG
Brigadier General, USAF
Director

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PAGE **2** OF **2**



DEFENSE INTELLIGENCE AGENCY
WASHINGTON, D.C. 20301



MEMORANDUM FOR THE DIRECTOR, NATIONAL RECONNAISSANCE OFFICE STAFF

SUBJECT: Proposed JCS Action on the Stellar and Terrain Frame Subsystem
for HEXAGON

1. The DIA has strongly supported the 12-inch frame camera in actions within the intelligence channels, including the Military Departments, the JCS and the USIB. The initial decision of the Deputy Secretary of Defense in Executive Committee actions to support the 3-inch camera which does not meet stated military requirements caused concern. DIA recognized that determination of the specific means of meeting requirements and of costs of satellite camera systems are NRO responsibilities, and for this reason DIA and JCS comments, despite keen interests, have purposely been general to avoid involvements in the specifics.
2. The JCS position, as reflected in the 19 December memo from the Chairman, JCS to the Deputy Secretary of Defense was primarily directed to the general expression of concern that the 3-inch camera will not meet military requirements, and that the 12-inch camera should be incorporated into current developments of the HEXAGON.
3. Comments contained in the Chairman, JCS memo were based on information regarding a November meeting of the EXCOM, which indicated that it would be much more expensive to incorporate the 12-inch camera later in the development of the HEXAGON system. There was no reference to redesign of the system for retrofit of the 12-inch camera. Additionally, it is known from the results attained for mapping purposes thus far that the 3-inch DISLO is not performing satisfactorily, and to meet its expected accomplishments would require reworking. On this basis, and upon indications of an increased cost for rework for incorporation into the HEXAGON, the general comments indicating reduced differential in costs between the 3-inch and 12-inch were believed to be appropriate.
4. The memorandum from the Chairman, JCS was intended to formally advise Mr. Nitze of the strong support of the JCS for incorporation of the 12-inch camera in the HEXAGON system at the earliest possible date. The general statements avoided specific details of technical and cost aspects on the basis that such expressions were properly the responsibility of the NRO. The memorandum has been signed and clarification if necessary could not be accomplished prior to the meeting of the Executive Committee this afternoon.

BYE 5207-30

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7. DIA has concentrated actions on support of the solution recommended by the NRO as meeting the USIB approved military requirements. If those portions of the memorandum from the Chairman, JCS which deal with costs and identification, this indicates that DIA, as the agency having primary responsibility for utilization of the end products of the proposed system, is not being sufficiently involved in the development of possible solutions to permit precise support by DIA of these objectives through the military channels.


WILLIAM A. GRACE
CHIEF, ANALYTICAL BRANCH
DIA STAFF

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~~ISI~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

The NSIC STAFF

20 December 1967

MEMORANDUM FOR DR. ~~FLAX~~ *AHF*

SUBJECT: Memorandum to JCS on SI Camera for HEXAGON

The attached memorandum to General Glass has been dispatched in response to your request that we correct possible misimpressions arising from General Glass's memorandum to the JCS. A copy of General Glass's letter with your notes is at TAB A.

We understand that the proposed JCS memorandum to the Deputy Secretary of Defense has already been signed. At this time we do not know whether DIA will ask that it be withdrawn for correction, or will take other action. We will inform you of the action that is taken.

DIAMC was not able to identify the exact source of the incorrect information they included in their memorandum.

David L. Carter
DAVID L. CARTER
Colonel, USAF

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DLRAC-IA/Mr. Kingsley/59505/jr/18Dec67

MEMORANDUM FOR CHAIRMAN, JOINT CHIEFS OF STAFF

SUBJECT: Twelve-inch Frame Camera in the HEXAGON System

18 DEC 67

1. Consistent with your memo to me of 3 November 1967 concerning satellite photography for mapping, DIA has given strong support to the requirement for development and operation of a new satellite system capable of acquiring data to meet the requirement for accuracies in large-scale maps necessary to support present and future military operations.
2. A USIB review of the requirement in view of the costs involved has resulted in reaffirming the need and the DCI taking action to request the PRO to proceed as a matter of priority with the proposed development of the 12-inch SI camera integrated in the HEXAGON system. However, while the USIB actions were being taken, two reviews of this matter involving Mr. Nitze as the DoD representative of ERGCM have resulted in a decision to use a 3-inch frame camera instead of the 12-inch frame camera. Following the first review, Secretary of the Army Resor wrote to Mr. Nitze, strongly urging the reinstatement of the 12-inch camera in the NEW SEARCH system.
3. Some new considerations have arisen that could cause Mr. Nitze to reverse his decision. Because of problems being experienced with the 3-inch frame camera, it is now reported that the PRO estimate of cost differential between proceeding with the 3-inch frame camera rather than the 12-inch frame camera in the NEW SEARCH system is substantially reduced. Further, it is reported that delaying the integration of the 12-inch SI to some future year would be much more costly than proceeding with this camera at this time.
4. Strong and timely support by the JCS during the current review of the matter could cause Mr. Nitze to change his position. It is recommended that the draft memo, Enclosure 1, which supports proceeding at the earliest possible date with the development of the 12-inch camera in the HEXAGON system, be forwarded to the Deputy Secretary of Defense.

151
ROBERT R. GLASS
Major General, USA
Acting Director

1 Enclosure a/s

Col Carter
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BYE 5473-67

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MEMORANDUM FOR THE DEPUTY CHIEF OF STAFF

SUBJECT: Twelve-inch Frame Camera in the HEXAGON System

1. The Joint Chiefs of Staff have reviewed the requirement for large-scale maps and have concluded that there is a priority need for development of a new image-forming satellite reconnaissance system capable of acquiring data to meet the requirement for accuracies necessary to support present and future military operations. To meet this need, the NRO recommended a 12-inch frame camera in the HEXAGON system. A USIB review of the requirement in view of the costs involved has reaffirmed the need, and the DCI has taken action to request the NRO to proceed as a matter of priority with the proposed development of the 12-inch SI camera integrated with the HEXAGON system.

2. It is now reported that because of problems with the 3-inch frame camera of the KH-4 system, the NRO cost differential for integrating the 12-inch SI camera instead of the 3-inch SI camera in the HEXAGON system has been substantially reduced. Further, NRO analyses indicate that proceeding now without the 12-inch SI camera and then inserting the 12-inch camera during some later year would be much more costly than including this 12-inch camera at this time.

3. It is understood that your reviews of this matter have concluded to proceed with the 3-inch frame camera rather than the 12-inch frame

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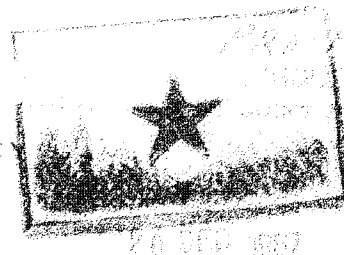
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