



DEFENSE INTELLIGENCE AGENCY  
WASHINGTON, D.C. 20301



28 DEC 1968

MEMORANDUM FOR THE DIRECTOR, NATIONAL RECONNAISSANCE OFFICE

SUBJECT: Operational Availability of the 12 Inch Stellar Index Camera  
of the HEXAGON System

1. DIA programming actions involving the use of KH-9 photography, including the 12" SI, have been based on Mr. Nitze's decision of 11 March 1968, which linked the 12" SI with the seventh HEXAGON vehicle. Further, these programming actions have been based on an operational date of spring 1971 for the first HEXAGON mission incorporating the 12" SI. Your NRO Staff letter of 26 November 1968 advising that DIA may expect the first 12" SI flight during the third quarter of FY 72 represents about a nine month delay from the previously planned date of spring 1971.
2. Extensive programming adjustments starting in FY 70 and continuing in subsequent years have been made in preparation for the availability of the new data. Further, since Mr. Nitze directed that program funding be reduced by \$29,000,000, which is an amount about equal to the cost of the mapping and charting portion of the system, DIA has already made a \$29,000,000 reduction in programmed air and ground survey operations and map production. Less tangible, but nevertheless important, training, organizational, physical facility and equipment procurement adjustments are underway to exploit the new data.
3. The changes in DIA programming were contingent on the availability of the KH-9 12" SI data in spring of 1971. The nine month delay leaves two alternatives. The alternative of going through a Program Change to readjust the entire program restoring reductions where practical should be avoided if at all possible in view of the extensive adjustments already made to accommodate the new materials and the expected important improvements over current mapping and charting data. The other alternative is to request the Deputy Secretary of Defense to dissociate the 12" Stellar Index camera from the seventh HEXAGON vehicle and align it with an earlier vehicle in order to assure availability of MC&G data for utilization by spring 1971.
4. To evaluate the alternatives, information is needed as to the impact of requesting that the 12" Stellar Index camera be dissociated from the seventh HEXAGON vehicle and aligned with an earlier vehicle. Information needed by DIA includes approximate related costs by fiscal year, impact, if any, on the KH-9 prime system, verification of the presently scheduled dates for the 12" SI and the KH-9 system, and other significant factors that you feel would be involved in proceeding on this alternative.
5. This matter is very important to mapping, charting and geodesy planning and programming throughout the Department of Defense and requires early

resolution. Upon receipt of the information cited in paragraph 4. above, DIA will take prompt action to either undertake the restoration of the reductions in the overall MC&G program, or request that action be taken to retain spring 1971 as the operational date for the first KH-9 mission, including the 12" SI.

*Joseph F. Carroll*

JOSEPH F. CARROLL  
Lieutenant General, USAF  
Director

January 8, 1969

## MEMORANDUM FOR DR. FLAX

SUBJECT: Operational Availability of 12-inch Stellar Index  
CameraPROBLEM

The current scheduled date for the launch of the first 12-inch Stellar Index Camera is February 1972. This is approximately nine months later than the planned date at the time of the Horowitz Study which is the basis of Mr. Nitze's approval of the 12-inch system.

BACKGROUND

The Assistant Director of DIA for Mapping and Charting has requested that General Carroll reopen the 12-inch SI camera issue with the Deputy Secretary of Defense in an attempt to roll back the operational availability of the 12-inch SI to the spring of 1971. The basis for this action by the Assistant Director for Mapping and Charting is our memo which specified a planned launch date in the 3rd Quarter of FY-72 for first 12-inch system (Tab A).

General Carroll has taken the position that he will not request the Deputy Secretary of Defense to direct a change in the availability of the 12-inch SI if such a change has a major impact on the HEXAGON program (TAB B). AS General Carroll points out in his memo, the other alternative is to reprogram within DIA and to adjust DIA schedules to meet the current estimated availability for the 12-inch system.

DISCUSSION

The attached memo for your signature indicates that a change in the operational availability of the 12-inch system will have a major impact on the HEXAGON program and it could increase FY-69 and FY-70 funding by 10 to 20 million dollars. The letter also points out that it may be possible to reverse

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the launch schedule for Vehicle 6 and Vehicle 7, thereby gaining three months in the operational availability of the 12-inch system without major impact on the program.

RECOMMENDATION

That the attached memorandum for General Carroll be signed.

WILLIAM E. WILLIAMSON  
Lt Colonel, USA

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MEMORANDUM FOR THE DIRECTOR, DEFENSE INTELLIGENCE AGENCY

SUBJECT: Operational Availability of the 12-inch Stellar Index Camera of the HEXAGON System

This is in response to your memorandum of December 28, 1968, on the subject of the operational availability of the 12-inch Stellar Index Camera. The development and procurement contracts for the 12-inch Stellar Index Camera are incentive type contracts which have been negotiated on the basis of compatibility with vehicle number seven. This was done in order to achieve a low risk development program for the 12-inch SI with adequate testing and qualification of all components prior to first flight.

A realignment of the SI development and procurement schedule for an operational date prior to vehicle number seven at this time would necessitate an accelerated development program involving production of flight hardware prior to completion of design reviews and qualification testing. This would eliminate the performance incentive now in the contract and would change the character of this development from a low risk item to a high risk item.

The advance of the incorporation of the 12-inch SI into the HEXAGON system by nine months would impact the satellite basic assembly test and qualification schedule which is presently critical. This would, in all probability, significantly delay the first launch of the HEXAGON system.

Detailed cost studies associated with an accelerated SI development program are not available; however, the program office estimates that the cost increase would be on the order of 10 to 20 million dollars and would have to be absorbed in FY-69 and FY-70.

The present HEXAGON launch schedule of four missions per year plans for vehicle number seven to be launched in February

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1972. Vehicle number seven is also the scheduled back-up for vehicle number six. It is possible that the launch of vehicle number seven could be advanced three months by launching vehicle seven and then vehicle six. This would not have a serious impact on the HEXAGON program, but it would place a six-month delay between coverage by the first SI unit and the second SI unit which will be on vehicle number eight.

Alexander H. Flax

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