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NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.



THE NRO STAFF

30 March 1976

MEMORANDUM FOR BRIGADIER GENERAL SHIELDS	
SUBJECT: Major General Kulpa's Recommendation on the Bendix/ Itek Star Sensor Assembly for HEXAGON	(b)(1)
REFERENCE: A. Telecon, Mr. Plummer/Maj Gen Kulpa, 19 Feb 76	(b)(3)
B. CHARGE 2954, 27 Mar 76	
On 19 February 1976, Mr. Plummer asked Maj Gen Kulpa to evaluate the star sensor assembly (SSA) for use on HEXAGON (TAB A). Maj Gen Kulpa was to determine if the Bendix/ Itek SSA offered technical or cost advantages over the on-going Perkin-Elmer solid state star sensor (S³) effort. The purpose of either the S³ or SSA would be to provide a precise attitude reference for the two HEXAGON vehicles which will not carry mapping cameras, SV-17 and SV-18. Such a reference is required to allow DMA to use the main HEXAGON camera panoramic imagery in the production of maps directly, without using some other material for positional control.	(b)(1) (b)(3)
Per reference B, attached at TAB B, Maj Gen Kulpa has completed his review. He concludes that either the SSA or $\rm S^3$ could do the technical job, but that only $\rm S^3$ can meet the schedule. Costs should be similar: \$30M for $\rm S^3$ and \$37M for SSA, including a \$5M contingency. He recommends no further consideration for SSA and a continuation of $\rm S^3$.	
Considering that over one year's development has been invested in \mathbb{S}^3 for the HEXAGON application, and the SSA was developed for an entirely different original application, Maj Gen Kulpa's conclusions and recommendations seem very reasonable.	
Because of Mr. Plummer's high personal interest in this, recommend you sign the memorandum and message at the right.	

Action Officer:

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(b)(3)