

~~TOP SECRET~~HANDLE VIA
BYEMAN-TALENT-KEYHOLE
CONTROL SYSTEMS JOINTLY~~(S)~~ NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.



THE NRO STAFF

25 July 1975

MEMORANDUM FOR LTCOLONEL HUTCHISON, SS-7

SUBJECT: HEXAGON Resource

Per your request I have made a quick estimate of the film required annually by HEXAGON to achieve the new SPS requirements. The yearly demand is:

- Clusters	1,137,266 SQ NM/YEAR
- Built Up	6,407,251 SQ NM/YEAR
- Undeveloped	2,282,569 SQ NM/YEAR
- Remote	1,809,118 SQ NM/YEAR
- TOTAL	11,717,011 SQ NM/YEAR

Using data from missions 1204 thru 1209, HEXAGON has averaged about 92 SQ NM of clear area per foot of film returned. This translates to about 126,618 feet required if all clear imagery was uniquely placed.

The 1204 thru 1209 data also indicates that the average unique area clear returned has been 70 SQ NM per foot. This indicates that about 165,846 feet would be required. These estimates do not include any special requirements or grain analysis.

Prepermission 1210 ICRS had defined special coverage requirements which if implemented would have required 143K feet. After many reviews this was reduced below 50K feet. Likewise, MC&G resource is not included. USIB has approved 2 million SQ NM of MC&G coverage per year. This equates to 22 K feet of additional film required. DMA is in the process of preparing a

HEXAGON

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pitch to USIB which will indicate a need for more pan coverage. The exact numbers are unknown but estimates of 4.84 million (K MC&G Study) and 5.3 million (DMA internal estimates) are available. Using these numbers, 53K feet for the K MC&G or 58K feet, would be required. Based upon these estimates the minimum footage is about 148,381 feet, while the maximum is 223,517 feet (see Attachment 1).

NOTE: The approved 2 million SQ NM of MC&G coverage was expenditure of stereo imagery outside of the Bloc. Should mono coverage be implemented for intelligence collection, selected stereo imagery for MC&G would need to be programmed in the Bloc to satisfy MC&G requirements.



Major, USAF

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ATTACHMENT 1

	<u>AREA RQD/ YEAR</u>		<u>FOOTAGE RQD TGT CLEAR AVG</u>	<u>FOOTAGE RQD UNIQUE CLEAR AVG</u>
STANDING SEARCH	11,717,011		126,618FT	165,846FT
MC&G (USIB Approved)	2,000,000	21,763FT	<u>148,381FT</u>	<u>187,609FT</u>
K MC&G ESTIMATE	4,840,000	52,666FT	<u>179,284FT</u>	<u>218,512FT</u>
INTERNAL DMA ESTIMATE	5,300,000	57,671FT	<u>184,289FT</u>	<u>223,517FT</u>

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