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June 20, 1969

MEMORANDUM FOR DR. MC LUCAS

SUBJECT: Minutes of HEXAGON Portion of the ExCom Meeting of June 20, 1969

Members Present

Mr. David Packard	Deputy Secretary of Defense
Mr. Richard Helms	Director of Central Intelligence
Dr. Lee A. DuBridge	Science Advisor to the President

Others Present

Dr. John L. McLucas	Director, National Reconnaissance Office, Ex Officio
Dr. John S. Foster, Jr.	DDR&E
Dr. F. Robert Naka	Chairman, HEXAGON Review Committee
Col. Lewis S. Norman	HEXAGON Review Committee (SAFSP)
	HEXAGON Review Committee (OSP/CIA)

Briefing

Dr. Naka briefed the recommendations from the Committee's review:

1. Fund HEXAGON to meet the December 1970 initial launch date.
2. Revise the CORONA schedule to

FY 1970 - 5
FY 1971 - 5
FY 1972 - 2

from the present 6, 6, 0.

HEXAGON CORONA GAMBIT

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3. Review in December 1969 the need for additional CORONA procurements.

Vugraphs used for the HEXAGON Review Committee's briefing are attached.

Conclusions

The Review Committee's recommendations were accepted. In addition, Perkin-Elmer was to be impressed with the need for cost control.

Discussion

Mr. Packard was upset by the apparent inability of the contractors and Government to project funding requirements. However, he felt that the funds must be found and without approaching Congress. Dr. DuBridge felt that the total program costs would rise if the program were either slipped or accelerated. Dr. Foster said that it was necessary to fund the program to insure intelligence collection. Mr. Helms indicated he would review management controls.

Dr. McLucas pointed out how some of the \$64M shortage could be met: GAMBIT had underrun \$30M in FY 1969, and the SI camera would not be accelerated. He also suggested that Admiral Nimitz be alerted to the need for cost controls.

Bob

F. Robert Naka
Chairman
HEXAGON Review Committee

Attachment
Vugraphs - 10

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OBJECTIVES

- o ASSESS PROBABILITY OF MEETING HEXAGON INITIAL LAUNCH DATE OF
DECEMBER 1970.
- o DETERMINE CONFIDENCE OF MISSION SUCCESS OF INITIAL HEXAGON LAUNCHES.
- o RECOMMEND A PLAN, CONSISTENT WITH THESE EVALUATIONS, WHICH
OPTIMIZES EXISTING CAPABILITIES WITH REGARD TO:
 - o INSURING ADEQUATE COLLECTION OVERLAP
 - o AND MINIMIZING COST.

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MISSION SUCCESS PROBABILITY

○ TOTAL SYSTEM RELIABILITY:

- | | | |
|----------------------------|-------|-------|
| ○ LAUNCH VEHICLE | - 95% | } 75% |
| ○ SATELLITE BASIC ASSEMBLY | - 90% | |
| ○ SENSOR SUBSYSTEM | - 88% | |
| ○ RECOVERY OF EACH RV | - 98% | |

○ SUBSYSTEM EXPERIENCE:

- COMMAND AND TELEMETRY SYSTEM EXPERIENCE ON GAMBIT
- NEW FILM TRANSPORT SYSTEM
- NEW RV's -- BUT SCALED-UP DISCOVERER SHAPE
- NEW PARACHUTE -- BUT SCALED-DOWN "PRECISION RECOVERY INCLUDING
MANEUVERING ENTRY - PRIME" PROGRAM CONFIGURATION

○ FIRST FLIGHT:

- NO ORBIT ADJUST ATTEMPT PRIOR TO RV #1 RECOVERY
- ADDITIONAL BATTERIES

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RECOMMENDATIONS

- o FUND HEXAGON TO MEET THE DECEMBER 1970 INITIAL LAUNCH DATE
- o REVISE YEARLY CORONA LAUNCH SCHEDULE OF 5-5-2-0
- o REVIEW NEED FOR ADDITIONAL CORONA BUY DEC '69

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INSURE ADEQUATE COLLECTION OVERLAP

o ADJUST CORONA LAUNCH SCHEDULE

	<u>FY '70</u>	<u>FY '71</u>	<u>FY '72</u>
o PRESENT	6	4 + 2	0
o RECOMMENDED	5	5	2

o DECISION TO BUY CORONAS CAN BE DELAYED TO DECEMBER 1969 TO INSURE

24-MONTH LEAD TIME.

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CORONA STRETCH-OUT COST

(5-5-2-0)

- o \$14M FOR 6-MONTH PERIOD IN FY '72

- o NEEDED ONLY IF:
 - o HEXAGON ACTUALLY SLIPS, OR

 - o FIRST TWO HEXAGONS ARE TOTAL FAILURES

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PROBABILITY OF DELAY OF INITIAL LAUNCH

NOT MORE THAN:

1 MONTH	50%
3 MONTHS	75%
6 MONTHS	95%

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COST OF ADDITIONAL CORONAS

(DECISION IN DEC '69)

- o 3 UNITS - \$43M
- o 6 UNITS - \$84M

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CORONA SCHEDULE VS REQUIREMENT

	FY 69	FY 70		FY 71		FY 72	
	Actual	Present*	Recom- ** mended	Present	Recom- mended	Present	Recom- mended
		Jul	Jul	Jul	Jul	None	Jul
	Aug						
	Sep	Sep	Oct	Sep	Oct		Oct
	Nov	Nov	Dec**	Nov	Dec		
	Dec	Jan		Jan			
	Feb	Mar	Feb	Mar	Feb		
	Mar	May	May	May	May		
	May						
Number of Missions	7	6	5	6	5	0	2
Search Satisfaction (80% Required Semiannually)	73%	70%	75%	75%	80%	28% (residual)	54%
Search Satisfaction (with one failure)	-	55%	64%	63%	69%	14% (residual)	35%
* Present schedule - STB at 100 nm; UTB at 85 nm.							
** Recommend UTB at 100 nm from Dec 1969 onward							

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FOR DEC 1970 LAUNCH

	<u>FY 1970</u>	<u>FY 1971</u>
PRESIDENT'S BUDGET	\$182.3M	\$192.8M (FYDP)
FIELD SUBMITTALS	\$246.4M	\$248.0M
DIFFERENCES:		
SENSOR RELATED	\$35.5M	
SPACECRAFT RELATED	\$14.1M	
SI CAMERA RELATED	\$10.6M	
OTHER	<u>\$ 3.9M</u>	
	\$ 64.1M	\$ 55.2M

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EFFECT OF FUNDING LIMITATIONS

PERKIN-ELMER (\$87M REQUIRED IN FY 70):

\$10M REDUCTION - 6 MONTH STRETCHOUT

\$25M REDUCTION - 12 MONTH STRETCHOUT

SPACECRAFT, RV's (\$87.8M REQUIRED IN FY 70):

\$7.5M REDUCTION - 6 MONTH STRETCHOUT

\$7.5M REDUCTION - 12 MONTH STRETCHOUT

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