

~~TOP SECRET~~
HANDLE VIA BYEMAN
CONTROL SYSTEM

Wheeler
HCP Peake

ZCZCXQA489IAA602
PP RUXQAA
DE RUXQIA 286 1551900
ZNY XXXXX ZKZ ZNM
P 041900Z
BT
XXXXX
GUARD 035 CATOR 039
GUARD PASS WHIG WAHOO
CATOR PASS CHARGE

Metrie
Pan.

DISTRIBUTION		
SAPSE	A	I
SAPUS		
DD		
SS-1		
SS-2		✓
SS-3		
SS-4		
SS-5		
SS-6		
SS-7		✓
COMOP		
SS-T/PT		✓
RF-11		
FILE		

~~TOP SECRET~~ 041900Z JUN 74 CITE ETHER 0286.
WHIG INFOR CHARGE WAHOO
SECUR HEXAGON TALENT KEYHOLE
WHIG FOR PEAKE, CHARGE FOR D. BERGANINI, WAHOO FOR [REDACTED]
SUBJECT: MEETING TO DISCUSS POSSIBLE APPROACHES FOR ATTITUDE
CAPABILITY FOR THE HEXAGON PAN CAMERA.

1. REFERENCES:

- A. MESSAGE, CITE WHIG 0073, 161845 Z JAN 74, SUBJECT: HEXAGON
PAN CAMERA-MAPPING APPLICATIONS STUDIES.
B. MEMORANDUM FOR THE CHAIRMAN, COMIREX, 16 APR 74, SUBJECT:
HEXAGON PAN MAPPING APPLICATIONS STUDIES, BYE-47539-74.
C. TELECON BETWEEN H. PEAKE AND J. WEBB, 3 JUN 74, SUBJECT:
MEETING REGARDING ATTITUDE CAPABILITY FOR THE HEXAGON PAN CAMERA.

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2. REFERENCE A. REQUESTED THAT ETHER PROVIDE REQUIREMENTS FOR
ATTITUDE ACCURACY. THIS WAS ACCOMPLISHED BY REFERENCE B. FOR THE
PURPOSE OF REVIEW THE FOLLOWING IS EXTRACTED FROM REFERENCE B.
ETHER HAS ANALYZED A PROJECTED ERROR BUDGET FOR A PAN STAND-ALONE
SUBSYSTEM INCORPORATING ALL THE RECOMMENDED IMPROVEMENTS. THE
TOTAL ERROR BUDGET COMPUTATIONS WERE MADE CONSIDERING ABSOLUTE
ATTITUDE AT 5, 6, 10 AND 15 ARC SECONDS AT THE OPTICAL AXIS. THESE
COMPUTATIONS MAKE IT POSSIBLE TO COMPARE POTENTIAL CAPABILITIES
VERSUS THE VALIDATED G AND G TECHNICAL OBJECTIVE FOR THE ADVANCED
ICBM WHICH STATES A RANGE OF 100 TO 165 FEET (CEP). THE FOLLOWING
TABLE PROVIDES THE SATISFACTION LEVEL IN TERMS OF APPLICABLE
PORTIONS OF THE SCAN FORMAT IN DEGREES RELATIVE TO ATTITUDE ACCURACY
CAPABILITY AND THE ADVANCED ICBM RANGE:

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SYSTEM ATTITUDE CAPABILITY	ADVANCED ICBM RANGE (FEET)		
	100	125	165
5-6 ARC SEC	0-30	0-45	0-60
10 ARC SEC	-	0-15	0-45
15 ARC SEC	-	-	0-30

AS CAN BE SEEN FROM THE ABOVE TABLE, TO SATISFY THE OBJECTIVE RANGE OF THE ADVANCED ICBM OVER THE FULL PAN FORMAT WOULD REQUIRE AS A

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MINIMUM, ATTITUDE CAPABILITY OF 5-6 ARC SECONDS ON EACH AXIS. A LESSER CAPABILITY OF 10 OR 15 ARC SEC WOULD PERMIT SOME LIMITED APPLICATION AT THE MID AND UPPER OBJECTIVE RANGE: HOWEVER IT IS EMPHASIZED THAT SATISFACTION OF THE TOTAL OBJECTIVE RANGE WITH A PAN STAND-ALONE SYSTEM THROUGHOUT ITS FORMAT WOULD REQUIRE 5-6 ARC SEC OR BETTER ATTITUDE CAPABILITY.

3. DISCUSSIONS BETWEEN WHIG AND ETHER OVER THE PAST FOUR MONTHS, CULMINATING IN REFERENCE C., INDICATE THAT STUDIES HAVE PROGRESSED TO THE POINT WHERE A MEETING BETWEEN THE INTERESTED PARTIES TO DISCUSS POSSIBLE APPROACHES IS APPROPRIATE AND POSSIBLE, ETHER REQUESTS IF POSSIBLE THAT THIS MEETING BE HELD DURING THE WEEK OF 24 JUN 74. OUR SPECIFIC AREAS OF INTEREST FOR THE MEETING ARE A DISCUSSION OF THE VARIOUS TECHNICAL APPROACHES, ACCURACY OF EACH, INTERFACE REQUIREMENTS, TIME FRAME FOR IMPLEMENTATION, PROJECTED COST, AND THE POTENTIAL OF EACH FOR INCREASED ACCURACY BEYOND THE DISCUSSED 5-6 ARC SECONDS. THIS INFORMATION COULD BE VERY IMPORTANT IN ESTABLISHING POSITION RELATIVE TO ON-GOING STUDIES AND THEREFORE IS TIME CRITICAL. E-2 IMPDET

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