

	ACTION	INFO	INITIAL
PAULSON		X	AP
CRESS		X	LC
[REDACTED]		X	BJ

~~SECRET~~
 KPDAH BYEMAN
 ANNELS ONEY

Comments: 6 Feb

[REDACTED] 0140

~~TOP SECRET~~ 051415Z FEB 80 CITE [REDACTED] 0266

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 DECLASSIFIED ON: 10 JANUARY

BISON.
 HANDLE VIA BYEMAN CHANNELS ONLY
 GAMBIT HEXAGON SECUR [REDACTED]
 BISON FOR L. MCCCHRISTIAN [REDACTED] FROM L. CRESS
 SUBJ: DUAL MODE DOCUMENT REVIEW

1. I HAVE REVIEWED YOUR DRAFT DOCUMENT. THE FOLLOWING PARAGRAPHS CONTAIN MY COMMENTS AS WELL AS [REDACTED] OBSERVATIONS.
2. THROUGHOUT THE DOCUMENT REFERENCES ARE MADE TO 65NM PERIGEE CAPABILITY (BOTH ILLUSTRATIONS & DESCRIPTIONS):
 - A. IS 65 NM STILL A TECHNICAL CAPABILITY (I.E., AERODYNAMIC HEATING)?
 - B. HASN'T EXPERIENCE AT 70 NM SHOWN INCREASED PHOTOGRAPHIC QUALITY BECAUSE BETTER AERODYNAMIC STABILITY MORE THAN OFFSETS THE HIGHER ALTITUDE?
 - C. A 65 NM PERIGEE WILL DECREASE MISSION LENGTH CAPABILITY BY 20 - 40 DAYS.

IF 65 NM PERIGEE IS NOT FEASIBLE, THE ILLUSTRATIONS & DESCRIPTIONS SHOULD BE CHANGED. IF THE CAPABILITY EXISTS BUT IS NOT RECOMMENDED, THAT SHOULD BE ADDRESSED IN THE LOW ALTITUDE MISSION DESCRIPTION (PAGE 50).
3. AREA COVERAGE FOR SEARCH POTENTIAL, PAGE 5, IS A MONO ONLY NUMBER. AS SUCH, IT SHOULD BE PARENTHETICALLY NOTED AS "MONO ONLY" OR CHANGED TO REFLECT STEREO/MONO MODE-VALID COVERAGE CAPABILITY. MODE-VALID CAPABILITY AT 450NM/120 DAYS IS APPROXIMATELY 6 MILLION SQUARE NAUTICAL MILES. THIS IS A SERIOUS AND MISLEADING DISCREPANCY WHICH HAS CAUSED INTELLIGENCE COMMUNITY PROBLEMS IN THE PAST. PEOPLE TEND TO CONCLUDE THAT ONE GAMBIT MISSION IS ALMOST EQUIVALENT TO ONE HEXAGON MISSION. IN FACT, IF THE REQUIREMENTS ARE SATISFIED IN THE VALID MODE (STEREO AND MONO), THREE GAMBIT SEARCH MISSIONS ARE ABOUT EQUIVALENT TO ONE HEXAGON MISSION.
4. VEHICLE AVAILABILITY, PAGE 6 DESCRIPTION:
 - A. CHANGE COMMENTS TO REFLECT THAT UNIT 51 WILL NOT BE RETROFITTED TO DUAL MODE CONFIGURATATION AND THAT IT MUST BE LAUNCHED BY JUL 1984 (REF: FX 84 PROGRAM BUDGET DECISION).
 - B. ADD COMMENT THAT A PROGRAM REQUIREMENT IS THAT A CALL-UP CAPABILITY IS REQUIRED THROUGH 1985.
5. VEHICLE AVAILABILITY, PAGE 7 ILLUSTRATION: THE LEGEND SHOULD BE CLARIFIED. AS SHOWN, THE PROGRAM APPEARS TO TERMINATE BY 1983. SUGGEST THAT:
 - A. ADD LEGEND AND NOTES THAT ILLUSTRATE THAT ARROW END OF BAR INDICATES CONTINUED AVAILABILITY UNTIL LAUNCHED

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AND BLUNT END OF BAR INDICATES "LAUNCH BY" AVAILABILITY;

B. EXTEND UNIT 51 BAR TO MID-1984; LEAVE END OF BAR BLUNT; AND,

C. REMOVE UNIT 51 (DUAL MODE)(RETROFIT) FROM BOTTOM OF ILLUSTRATION.

6. PROGRAM EVOLUTION, PAGE 18: REFERENCE TO 120-DAY MISSIONS SHOULD NOTE THAT THAT IS ALTITUDE DEPENDENT.

7. PROGRAM EVOLUTION, PAGE 19 ILLUSTRATION; FILM FOR THE 1979 TIME FRAME SHOULD BE SO-209, OR, CHANGE THE TIME REFERENCE TO 1980 AND UPDATE THE FRAME QUANTITY TO 25,000 (WHICH WOULD THEN BE CONSISTENT WITH FRAME POTENTIAL LISTED ON PAGE 5).

8. AREA ACQUISITION, PAGES 41 AND 42: AS IN PARAGRAPH 3 THIS ILLUSTRATES MONO ONLY CAPABILITY, WHICH IS VERY DISCEPTIVE. CLARIFY IN DESCRIPTION AND ADD A MODE-VALID CURVE TO THE GRAPH.

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10. SYSTEM SUMMARY, PAGE 83: SAME COMMENTS AS PARAGRAPHS 3 AND 8; STATING MONO-ONLY CAPACITY, AS THE SEARCH CAPABILITY IS MISLEADING.

11. GENERAL COMMENTS:

A. THE DOCUMENT THROUGHOUT REFERENCES NIIRS CAPABILITY AT SEARCH ALTITUDE. WHEN [REDACTED] PRESENTED THE DUAL MODE MISSION STUDY TO COMIREX IN NOV 79, THIS WAS THE ONLY SEVERE DISAGREEMENT WITH THE BRIEFING. SPECIFICALLY, COMIREX FELT THAT NIIRS PROJECTIONS WERE UNFOUNDED SINCE NO EMPIRICAL DATA EXISTS. THIS WOULD BE SOFTENED SOMEWHAT IF YOU STATED THAT THE PROJECTION IS EXTRAPOLATED FROM THE HEXAGON PREDICTER. ALSO, REFERENCES TO PREDICTED RESOLUTION AT SEARCH ALTITUDES WOULD BE LESS CONTROVERSIAL, AND STATING THE RESOLUTION WOULD BE CONSISTENT WITH STATING SURVEILLANCE RESOLUTIONS.

B. THE DOCUMENT APPEARS TO BE A GOOD REFERENCE FOR PROGRAM INFORMATION. IT IS LAID OUT WELL AND COVERS MOST INFORMATION OF INTEREST.

REVW 5 FEB 2000

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