

CLASSIFIED MESSAGE

~~SECRET~~

DATE 2330Z 12 APR 61

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TO .DIRECTOR

FROM [REDACTED]

ACTION: DPD (1,2,3,4,5,6,7,8,9,10)

INFO S/C (11)

Declassified and Released by the NRC

In Accordance with E. O. 12958

EG

TOR: 0043Z 13 APR 61 on NOV 26 1997

PRIORITY

TO [REDACTED]

INFO [REDACTED]

CITE [REDACTED]

NO NITE ACTION

FOR MR PARANGOSKY AND MR KIEFER FROM LT COL FORD

MSN 9015A

FOLLOWING QUOTED FOR YOUR INFORMATION:

QUOTE:

SECRET [REDACTED] FOR [REDACTED] SSD-MS, AND [REDACTED] AFDS-LO, COFS. FOR [REDACTED] RDRB, AFSC. INFO FOR TUG, 6594TW. INFO FOR VWZ, 5565TW. SUBJECT: NORTH STAR REPORT; SUMMARY REPORT ON DISC XXIII.

1. FROM LAUNCH TO PASS 9 ALL OPERATIONS ON DISC XXIII, AGENA 110S, WERE SATISFACTORY. ON PASS 10 OVER [REDACTED] TRACKING STATION CONTROL GAS PRESSURE READ ZERO AND VEHICLE WAS NOT STABILIZED. EXAMINATION OF AVAILABLE TELEMETRY RECORDS INDICATES THAT FLIGHT STABILIZATION MALFUNCTIONS WERE OCCURING DURING STATION CONTACTS ON PASS 9. DETAILED EXAMINATION IS UNDER WAY TO DETERMINE CAUSE OF FAILURE.
2. AFTER PASS 10 EMPHASIS WAS PLACED ON DETERMINATION OF BIRD MOTION AND ATTITUDE TO DETERMINE IF RE-ENTRY COMMANDS SHOULD BE SENT. RESULTS OF THIS ANALYSIS INDICATED THAT BIRD WAS SPINNING ABOUT THE

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ROLL AXIS AT 1 RPM, WITH A MUTATING MOTION FORMING A CONE WITH A HALF ANGLE OF 30 DEGREES. THE BIRD WAS APPARENTLY IN A NOSE DOWN POSITION I.E. SUITABLE FOR REENTRY EVEN WITH THE MUTATION. THIS MOTION AND ATTITUDE WAS DERIVED FROM DATA RECEIVED ON PASSES THROUGH 25.

3. BASED ON THIS INFO IT WAS DECIDED TO RECOVER ON PASS 32. EARLIER RECOVERY COULD NOT BE MADE AS NECESSARY ATTITUDE AND MOTION DATA WAS NOT AVAILABLE UNTIL AFTER PASS 17. DATA INDICATED A BETTER THAN 50 PERCENT PROBABILITY OF REENTRY IN THE EXPANDED RECOVERY AREA.

4. ON PASS 28 THE [REDACTED] TRACKING STATION ISSUED THE COMMANDS FOR A PASS 32 REENTRY. ALTHOUGH CONTACT WITH THE SATELLITE WAS INTERRUPTED PERIODICALLY DUE TO ITS ABNORMAL MOTION THE TELEMETRY FROM THE BIRD VERIFIED THE RECEPTION OF THE COMMANDS AND OTHER TELEMETRY INDICATED THAT THE DUMP SEQUENCE HAD BEEN ENABLED.

5. RECOVERY FORCES WERE DISPATCHED TO THE EXPANDED RECOVERY AREA FOR A PASS 32 RECOVERY AND POSITIONED FOR REENTRY FROM AN UNSTABLE BIRD. THIS POSITIONING IS TO MAXIMIZE LOCATION OF CAPSULE WITH A DEGRADED ABILITY FOR AERIAL RECOVERY. THE C-119'S WERE POSITIONED FROM 24 DEGREES NORTH TO 7 DEGREES NORTH, RC 121'S WVIIS AND JC-54'S WERE POSITIONED 30 DEGREES NORTH TO 4 DEGREES SOUTH LATITUDE ALONG THE ORBIT PLANE FOR PASS 32. SHIPS WERE AT 2 DEGREE AND 9 DEGREE NORTH ON ORBIT PLANE.

6. ON PASS 29 IT WAS NOTED THAT THE TIMER WHICH SHOULD HAVE BEEN ON SUBCYCLE 29 WAS ACTUALLY ON SUBCYCLE 30. FOR SOME AS YET UNKNOWN REASON THE TIMER HAD PERFORMED A SKIP OF ONE CYCLE.

7. TO OVERCOME THIS SKIP ON PASS 30 THE PASS 32 REENTRY COMMAND WAS DISABLED AND A REPEAT COMMAND WAS TRANSMITTED TO SATELLITE AND PROPERLY RECEIVED. LATER AN ATTEMPT TO REESTABLISH THE

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[REDACTED] PASS 32 REENTRY WAS MADE BUT DUE TO BIRD MOTION IT WAS ONLY PARTIALLY SUCCESSFUL AND A PASS 31 REENTRY WAS ACTUALLY SETUP.

8. BECAUSE THE BIRD WAS UNSTABLE AND CAPSULE WOULD PROBABLY GO LONG, THE TIME HAD BEEN ADJUSTED SO THAT THE REENTRY START EVENTS WOULD OCCUR PRIOR TO ACQUISITION BY [REDACTED] TRACKING STATION. THUS IT WAS IMPOSSIBLE TO DISABLE THE PASS 31 REENTRY.

9. ON PASS 31 THE SATELLITE WAS ACQUIRED BY [REDACTED] AND SEPARATION EVENT WAS VERIFIED. CAPSULE TELEMETRY AND BEACON WERE TRACKED BY [REDACTED] AND LATER TRACK ON THESE TRANSMITTERS WAS OBTAINED BY [REDACTED] FROM THIS TRACKING DATA IT WAS DETERMINED THAT THE CAPSULE HAD NOT REENTERED BUT HAD GONE INTO A NEW ORBIT WITH A LONGER PERIOD, APPROXIMATELY 101 MINUTES. THIS WAS CONFIRMED BY [REDACTED] ACQUISITION OF THE CAPSULE BEACON ON PASS 32 AT 1335 PST (APPROX).

10. AS A RESULT OF THIS DATA THE AUXILIARY FORCES WHICH HAD BEEN ALERTED FOR RECOVERY SEARCH FOR PASS 31 REENTRY ALONG LONGITUDE 130 DEGREES WEST WERE RELEASED AND THE RECOVERY FORCES WERE RETURNED TO HICKAM.

11. DETAILED ANALYSIS IS BEING PERFORMED ON ALL DATA TO DETERMINE CAUSES OF ALL MALUNCTIONS. EPHEMERIS ON CAPSULE WILL BE DEVELOPED FROM TRACKING DATA ON SUBSEQUENT PASSES HOWEVER IT CAN BE STATED THAT IMMEDIATE REENTRY IS HIGHLY IMPROBABLE.

END OF QUOTE

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