

CLASSIFIED MESSAGE

TE : 00457 24 NOV 1959

~~SECRET~~

ROUTE

TO : DIRECTOR

FROM :

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

INFO : S/C (11)

DAP

TOR: 02057 24 NOV 59

OPERATIONAL IMMEDIATE
OPERATIONAL IMMEDIATE

TO

CORONA

INFO

MSN # 9005

This document contains information referring to Project **CORONA**

FOR MESSRS [REDACTED] KIEFER FROM COLONEL WORTHMAN

FOLLOWING PRIORITY MESSAGE FROM GEN RITLAND TO GEN SCHRIEVER WAS DISPATCHED ON 22 NOVEMBER AT ABOUT EIGHT O'CLOCK IN THE EVENING.

QUOTE: TO: COMDR, AFBMD, LOS ANGELES, CALIF; FROM: COMDR, ARDC, ANDREWS AFB, WASHINGTON, D.C.; INFO: HQS USAF, WASHINGTON, D.C. (AFCGM AND AFDAT); [REDACTED] LOCKHEED AIRCRAFT CORPORATION, MISSILES SYSTEMS DIVISION, SUNNYVALE, CALIF.

~~SECRET~~ [REDACTED] PERSONAL FROM MAJOR GENERAL RITLAND TO LT GENERAL SCHRIEVER. THIS MSG IN THREE PARTS. PART ONE. FYI AND BACKGROUND, THE FOLLOWING INFORMATION ON DISCOVERER EIGHT IS SUBMITTED. THIS INFO IS PRELIMINARY AND WILL BE CONFIRMED AND AMPLIFIED AS ADDITIONAL INFO BECOMES AVAILABLE. DISCOVERER EIGHT WAS SUCCESSFULLY LAUNCHED AT 1125 PST, 20 NOV 59. THOR PERFORMANCE WAS NOMINAL. THE AGENA VEHICLE PERFORMANCE WAS AS EXPECTED EXCEPT THAT INTEGRATOR CUTOFF OF THE SECOND

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STAGE WAS NOT OBTAINED. THIS RESULTED IN AN OVER VELOCITY OF APPROX EIGHT HUNDRED FEET PER SECOND AND CAUSED A HIGHLY ECCENTRIC ORBIT WITH A PERIOD OF 103.7 MINUTES. THIS PERIOD WAS BEYOND THE TOLERANCE OF THE TIMER CONTAINED IN THE VEHICLE AND TO COMPENSATE FOR THIS UNUSUALLY LONG PERIOD, THE TIMER WAS ADJUSTED IN A MANNER TO PERMIT EJECTION AND THE RECOVERY SEQUENCES TO OCCUR AS NEARLY AS POSSIBLE TO THE PLANNED IMPACT AREA. THE COMMANDS RESETTING THE TIMER WERE SUCCESSFULLY TRANSMITTED TO THE VEHICLE, ACKNOWLEDGED AND ACTED UPON. THE NET RESULT OF THESE COMMANDS WAS TO INITIATE THE RECOVERY SEQUENCE ON THE FIFTEENTH VEHICLE PASS. DURING THE ENTIRE FLIGHT PERIOD, ALL VEHICLE SUBSYSTEM FUNCTIONED PROPERLY. THE RECOVERY SEQUENCE WAS INITIATED AT APPROX 1322 PST, 21 NOVEMBER. SEPARATION OF THE RECOVERY CAPSULE FROM THE VEHICLE WAS CONFIRMED BY THE JOE E. MANN TELEMETRY SHIP. PRELIMINARY REDUCTION OF CAPSULE TELEMETRY INDICATES THAT THE SPIN ROCKETS, THE RETRO ROCKET, AND AT LEAST ONE OF THE TWO RE-SPIN ROCKETS OPERATED. FURTHER, THE THRUST CONE AND RETRO-ROCKET WERE JETTISONED. RECOVERY CAPSULE TELEMETRY WAS RECEIVED BY THE JOE E. MANN UP TO THE POINT OF IONIZATION BLACKOUT AND THERE ARE SOME INDICATIONS OF ADDITIONAL TELEMETRY HAVING BEEN RECEIVED SUBSEQUENT TO THE CAPSULE EMERGENCE FROM THE BLACKOUT ZONE. TRACKING INFO OBTAINED FROM THE TELEMETRY RECORDS WAS SUBJECTED TO ROUGH TRAJECTORY ANALYSIS AND, AS A RESULT, THE RECOVERY FORCE WAS SHIFTED SOUTH APPROX TWO HUNDRED MILES. BECAUSE OF THE AMOUNT OF

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[REDACTED]

TELEMETRY WHICH HAS BEEN RECEIVED ON THIS FLIGHT, IT WILL BE SEVERAL DAYS BEFORE A COMPLETE FIRST LOOK WILL HAVE BEEN ACCOMPLISHED. I WILL PROVIDE YOU ADDITIONAL INFO AS IT BECOMES AVAILABLE. PART TWO. DURING THE PAST TEN MONTHS A TOTAL OF EIGHT DISCOVERER VEHICLES HAVE BEEN LAUNCHED. ON ALL EIGHT LAUNCHES, BOTH THE THOR AND THE AGENA PROPULSION SYSTEMS HAVE OPERATED ONE HUNDRED PER CENT OF THE TIME AND WITH VERY MINOR EXCEPTIONS IN TOTAL IMPULSE HAVE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS. ALL DISCOVERER SUBSYSTEMS, WITH THE EXCEPTION OF THE RECOVERY SUBSYSTEM AND THE GUIDANCE SUBSYSTEM, HAVE PERFORMED EFFECTIVELY WITH A VERY LIMITED NUMBER OF FAILURES OCCURRING IN THE POWER SYSTEM AND IN THE AIRBORNE COMMUNICATIONS PACKAGE. THE DIFFICULTIES WHICH WE HAVE ENCOUNTERED WITH THE GUIDANCE SUBSYSTEM AND THE RECOVERY SUBSYSTEM HAVE STILL PERMITTED THE DEMONSTRATION OF THE FLEXIBILITY OF OUR RECOVERY FORCE AND, ALTHOUGH A SUCCESSFUL RECOVERY HAS NOT YET BEEN ACCOMPLISHED, EXTREMELY VALUABLE EXPERIENCE IN THE COMMAND AND CONTROL OF SATELLITE VEHICLES AND THE DIRECTION AND EXERCISE OF THE RECOVERY FORCE HAS BEEN ACCOMPLISHED. THE BASIC DESIGN OF THE DISCOVERER VEHICLE HAS BEEN PROVEN. PART THREE. DESPITE THE SUCCESSES TO DATE OF THE DISCOVERER SERIES, IT IS MY FIRM CONVICTION THAT A SYSTEMATIC AND INTENSIVE REVIEW OF PROGRESS MUST BE MADE. THE GUIDANCE AND THE INTEGRATOR CUTOFF OF THE PROPULSION SYSTEM HAS NOT PERFORMED SUFFICIENTLY WELL TO SATISFY ME. THE GROUND TESTING PROGRAM

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[REDACTED]

FOR THE RECOVERY SUBSYSTEM MUST BE REVIEWED TO DETERMINE WHAT ADDITIONAL TESTING MUST BE INSTITUTED TO INSURE ITS PROPER OPERATION. RECENT FUNDING CUTS FOR BOTH FY 60 AND FY 61 POINT TO SOME PROGRAM READJUSTMENT. UNTIL ALL OF THE TECHNICAL AND FUNDING ASPECTS OF THE DISCOVERED PROGRAM ARE REVIEWED BY AFND AND THE PRIME CONTRACTOR, I AM SUSPENDING THE FLIGHT TEST PHASE OF THE PROGRAM. SUCH A REVIEW IS ALREADY UNDER WAY AND I WILL PROVIDE YOU A BRIEFING OF THE RESULTS AND MY RECOMMENDATIONS EARLY IN DECEMBER. UNQUOTE.

PRIOR TO PRESENTING TO GEN BITLAND ANY MATERIAL UPON WHICH TO BASE RECOMMENDATIONS WE FEEL IT ESSENTIAL THAT YOUR INPUTS AND CONSIDERATION BE INTEGRATED. AFND SHOULD HAVE TENTATIVE INFO ON THIS SUBJECT ON WHICH TO BASE A DISCUSSION AT 30 NOVEMBER CORONA MEETING.

END OF MESSAGE

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