

[REDACTED]

TOT: 1009203  
CCN: 10  
XX21A  
Jewell  
5-1

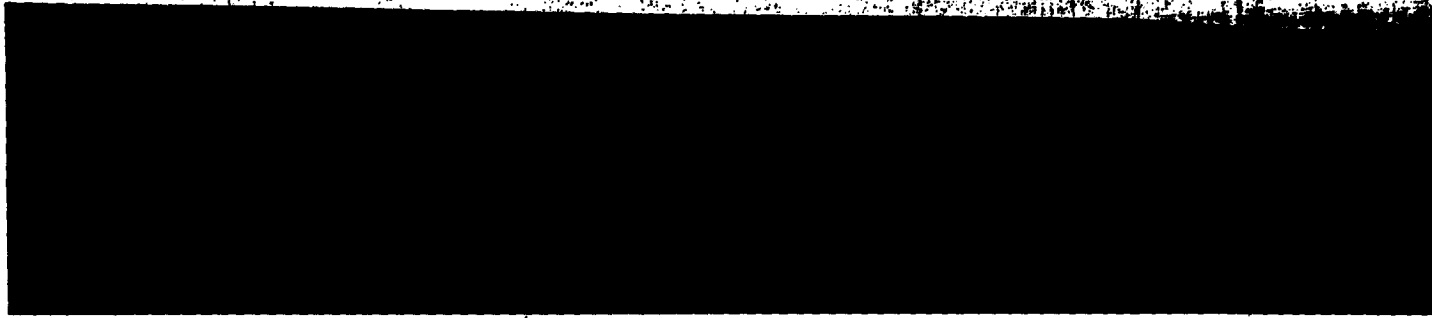
VERBOS  
3 180615Z  
AF OPS AIRSPACE TEST VC VAFB  
EO SPACE SYSTEMS DIV LOSA  
BT

//B E C R E T//SECTION ONE OF TWO VVED-17-1-75-2.  
SUBJECT FLASH REPORT ON LAUNCH OF THOR AGENA  
(THOR BOOSTER NO. 33) AND AGENA B ORBITAL STAGE NO.  
1124 WAS LAUNCHED ON THE TEST ATTEMPT FROM VAFB  
COMPLEX 75-3 PAD 5 AT 1653:46.96 PST ON 17 APRIL  
1966. THE PRIMARY LAUNCH OBJECTIVE, TO PLACE THE  
AGENA SATELLITE WITH PAYLOAD IN A NEAR-POLAR  
ORBIT, WAS ACCOMPLISHED, HOWEVER AN ABNORMAL  
AGENA ENGINE SHUTDOWN TRANSIENT RESULTED IN AN  
INJECTION VELOCITY AND AN ORBITAL PERIOD SLIGHTLY  
GREATER THAN NOMINAL. READINGS FROM THE VTS

CLASSIFICATION CHANGED TO  
[REDACTED]  
By Authority of AFR 205-2  
[Signature] 7 APR 1966

BASE TWO VAFB  
RADAR PLOTTING BOARD GAVE AN INJECTION ALTITUDE  
OF 128 STATUTE MILES, AN INJECTION PAD REFERENCED  
VELOCITY OF APPROXIMATELY 25,350 FPS, AN INJECTION  
FLIGHT PATH ANGLE OF ABOUT 0 DEG, AND AN INITIAL  
DEPARTURE FLIGHT AZIMUTH OF APPROXIMATELY 172  
DEG. THE INFIGHT YAW LEFT MANEUVER DURING THE  
LATTER PART OF THE THOR BOOST APPEARS TO HAVE  
BEEN SUCCESSFULLY ACCOMPLISHED. TRACKING STAT-  
IONS AT KODIAK, ANNETTE, VANDENBERG, AND HAWAII  
HAVE CONFIRMED ORBITAL STATUS THROUGH RECEPTION  
OF LINK 1 AND LINK 2 TELEMETRY AND RADAR BEACON  
SIGNALS ON THE FIRST ORBITAL PASS.

A LIST OF SIGNIFICANT LAUNCH EVENTS FOLLOWS:  
LIFTOFF ZERO 1653:46.96 PST  
STEERING INITIATED 98.41 SEC  
IECO (S1) 149.96 SEC  
IECO 154.94 SEC  
ENABLE D1 AND D2 (S2) 158.95 SEC  
I ON 153.67 SEC  
I OFF 156.67 SEC



PAGE THREE WAFB

2 2 ON	156.88 SEC
2 2 OFF	168.78 SEC
SEPARATION COMMAND (SE)	161.49 SEC
ORNA IGNITION (NO PER-	
CENT PG)	193.93 SEC
ORNA SHUTDOWN COMMAND	431.5 SEC
ORNA SHUTDOWN (OPER-	
MENT PG)	451.84 SEC
ITS VERLOFT RADAR FADE	451 SEC
ITS ACQUISITION BEACON FADE	457 SEC
ITS TELEMETRY FADE (LINK 1)	483 SEC

1. PRELIMINARY EVALUATION INDICATES THAT LAUNCH TEST OBJECTIVES WERE ACHIEVED AS FOLLOWS: (REF. DETAILED TEST OBJECTIVES, LMSC-446484, SECTION 2)

A. THOR BOOSTER - OBJECTIVE ACHIEVED

BOOSTER IGNITION AND LIFTOFF WERE SATISFACTORY. THE THOR ROLL PROGRAM AND PITCH PROGRAM APPEAR TO HAVE BEEN PROPERLY EXECUTED. THE PROGRAMMED YAW-LEFT MANEUVER DURING THOR - MID-BOOST WAS SATISFACTORYLY ACCOMPLISHED. AT MAIN ENGINE CUTOFF, VEHICLE POSITION WAS WITHIN A SPHERE OF 3000 RADIUS, FLIGHT PATH ANGLE WAS WITHIN PLUS OR MINUS 1 DEG, AND VELOCITY WAS WITHIN 100 FPS OF THE NOMINAL VALUE.

**SECRET**

TOT: 19109452  
CCN: 10

AEROSPACE TEST VE VAVE  
70 SPACE SYSTEMS DIV LOSA

... E R E T // FINAL SECTION OF TWO VVEB-IT-4-TT-5.  
GROUND GUIDANCE SYSTEM. VEHICLE ATTITUDE APPEARS  
TO HAVE BEEN CONTROLLED SATISFACTORILY DURING THE  
ASCENT PHASE AND THE ORBITAL BOOST PHASE, AND CONTROL  
IAS EXPENDITURE WAS NORMAL DURING BOTH OF THOSE  
PERIODS. THE AGENT FINDER PROPERLY CONTROLLED THE  
TIME AND SEQUENCE OF ALL PROGRAMMED EVENTS THAT  
WERE SCHEDULED TO OCCUR PRIOR TO LOSS OF TELEMET-  
RIZED DATA AT VTS. HYDRAULIC SYSTEM PERFORMANCE  
WAS ADEQUATE.  
THE INTEGRATOR COMMAND ENGINE SHUTDOWN AT

... THE VVEB  
... 151.5 SEC AFTER A VELOCITY GAIN OF 15, THE FPE WAS INDIC-  
ATED. HOWEVER THE SHUTDOWN TRANSIENT WAS SUCH  
THAT AN ADDITIONAL 50 TO 75 FPE WAS IMPARTED TO THE  
VEHICLE AFTER THE SHUTDOWN COMMAND WAS PROVIDED.

5. AEROSPACE COMMUNICATIONS SYSTEM  
OPERATION OF THE ACQUISITION BEACON AND THE  
RADAR BEACON WAS SATISFACTORY. VTS TRACKED THE  
ACQUISITION BEACON FROM LIFTOFF TO 457 SEC AND THE  
RADAR BEACON FROM LIFTOFF TO 491 SEC. AT 493 SEC,  
THE TIME OF LINE 1 TELEMETRY DATA FARE FOR VTS, ALL  
TELEMETRY CHANNELS WERE OPERATING. AT THIS TIME  
THE ORBITAL YENET WAS SET AT 5000 SEC (STEP 15), IN THE  
NEXT-ON POSITION, IN THE INCREASE MODE, AND ALTER-  
NATE RE-ENTRY DESIGN STATE. AEROSPACE LINK 2 TELEMETRY  
WAS NOT ON DURING ASCENT. NO GROUND COMMANDS WERE  
SENT DURING THE ASCENT PHASE. TRACKING STATION  
COMMUNICATIONS DURING THE LAUNCH OPERATION WERE ADEQUATE

6. AEROSPACE GROUND EQUIPMENT - OBJECTIVE ACHIEVED  
BOOSTER AND ORBITAL STAGE CHECKOUT WAS  
SATISFACTORILY ACCOMPLISHED DURING THE PRE-LAUNCH

**PAGE THREE VAFB**

**DOWN BY THE AIRSPACE GROUND EQUIPMENT;**

**HOWEVER, THE FOLLOWING PROBLEMS WERE ENCOUNTERED:**

1. IN CASE 2 THE PROBLEM WITH WATER DRAINAGE IN THE  
REARWARD END OF THE AIRCRAFT. REPAIRS WERE  
MADE AND NORMAL OPERATIONS RESUMED WITH  
NO DELAY.
2. THE AERNA AGRD PRELIMINARY TANKING REQUIRED  
20 MINUTES LONGER THAN NORMAL. THE LOW  
LOADING RATE IS POSSIBLY DUE TO A CLOGGED  
FILTER IN THE AGE. FURTHER EVALUATION IS IN  
PROGRESS.
3. DURING TERMINAL COUNTDOWN THE AERNA HELIUM  
PRESSURE DECAYED. EVALUATION SHOWED A LEAK  
AT THE HARDLINE FITTING ON THE HELIUM QUICK  
DISCONNECT. LEAKAGE WAS STOPPED BY TORQUING  
A "B" NUT ON THE FITTING.

**D. COUNTDOWN**

THE COUNTDOWN STARTED AT GULD POT ON 17 APRIL  
1962 AND PROCEEDED TO LIFTOFF WITH 1 HOLD TOTALING  
14 MIN. THE HOLD WAS IMPROVED DURING TERMINAL COUNT-

**PAGE FOUR VAFB**

**DOWN BY REAR OF PANEK IRT (1-1) MIN 26 SEC) BECAUSE OF  
AN AERNA AGE LEAK PROBLEM.**

**DURING TASK 15 AN AREA OF THE AERNA SKIN WHICH HAD  
NOT BEEN PAINTED IN ACCORDANCE WITH A RECENT MODIF-  
ICATION WAS PAINTED. THE PAINTING OPERATION CAUSED  
15 MINUTE DELAY.**

**E. PAD DAMAGE**

**DAMAGE TO THE PAD EQUIPMENT AND FACILITIES  
AS NORMAL, AND THE REHABILITATION WORK IS EXPECTED  
TO BE SIMILAR TO THAT AFTER PREVIOUS LAUNCHES FROM  
THIS PAD. S C P - 4.**

**/0000Z APR 62**

