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File  
White 110

4-8-97-5  
8-1-84  
07

SECRET

SECRET NO TAMPING AND CALIF

AEROSPACE SYSTEMS INDUSTRIES ANGLE CALIF

SECRET NO /SATELLITE/ SERRITVAL CALIF

LOCKHEED MISSILES & SPACE COMPANY SERRITVAL CALIF

LOCKHEED MISSILES & SPACE COMPANY VANNUERS AFB CALIF /COURIER/ ZEN

DOUGLAS AIRCRAFT COMPANY VANNUERS AFB CALIF /COURIER/ ZEN

SECRET NO TAMPING AND CALIF /COURIER/ ZEN

SECRET NO TAMPING AND CALIF /COURIER/ ZEN

SECRET NO TAMPING AND CALIF

CLASSIFICATION CHANGED TO

Authority of 205-2  
APR 1968

DOWNGRADED AT 3 YEAR INTERVALS:  
DECLASSIFIED AFTER 12 YEARS  
DOD DIR 5260.10

SECRET FROM 7-2-7-104

LOCK FOR MISSILES ONLY FOR COL. ROBERT BISHOP ZENIC/

SERRITVALS FOR TWCA-5 (S) DEEPFORD MISSILE LAUNCHERS

FOR DEPT OF THE ARMY ONLY FOR MR. HICKMAN, DUGLASS

SECRET NO TAMPING AND CALIF /COURIER/ ZEN

OFFICE SYMBOL				
NAME (SIGNATURE)				
DATE	CHANGES	FOR	NO	DATE
LEON A. SPERRY, JR., Colonel, USAF				



SUMMARY OF VANDERBILT APPELLATE  
 COURT/RE. FEDERAL/REPUBLIC/STAFF FOR COL. VERRALL. SUBJECT  
 CILM DOCUMENTS WITH PRELIMINARY LAUNCH SUMMARY/REMIT-  
 TANCE/STAFF. FOLLOWING IS THE 45-MINUTE SUMMARY REPORT ON  
 THE LAUNCHING OF ORBITER/RESEARCHER/TYPE S2/AGORA 3 1119/

**I. PRELIMINARY OPERATIONS CILM**

A. PRELIMINARY OPERATIONS WERE STARTED AT  
 1500 HOURS ON JULY 1961. THE FIRST HOLD WAS ISSUED AT  
 7:00 HOURS TO DELAY COUNTDOWN 2000 TIME TO PERMIT  
 PARKING OF A TRUCK ANTICIPATED TO BE IN THE RANGE WALKER  
 AREA TERMINAL LIFT OFF TIME. THE DURATION OF THIS HOLD  
 WAS 45 MINUTES. HOLD NO. 2 WAS CALLED AT 7:41 MINUTES TO  
 ALLOW CHECK OF CONNECTION OF A RANGE SAFETY INSTRUMENT  
 TEST PROBLEM. THIS HOLD LASTED 9 MINUTES.

B. TERMINAL COUNTDOWN WAS STARTED AT 1525 HRS. AT THE  
 START OF PHASE Y IN THE TERMINAL COUNT, A FLAMING HOLD  
 OF 2 MINUTES DURATION WAS CALLED TO ALLOW MORE THOROUGH  
 CHECKING OF THE TECH VEHICLE RANGE LIQUID OXYGEN SYSTEM  
 AND ALSO TO ALLOW THE TECH LOX TANK TOP PRESSURE TO  
 DECAY TO THE REQUIRED LEVEL. THE TERMINAL COUNTDOWN  
 THEN PROCEEDED NORMALLY TO VEHICLE LIFTOFF AT 1530:00.46  
 HRS. THIS WAS THE FIRST ATTEMPT TO LAUNCH THE ORBITER



[REDACTED]

CONTINUING VIBRATIONS ARE CALLED  
LIVE VIBERS.

1. EAST PASS C18

2. THE DATA TRANSMITTED FROM THE TRACK  
AND THE AGORA AND THE NORTH SOUTH DATA FROM THE TRACK  
SHOW THAT A VIBRATION OSCILLATION IN PITCH STARTED  
IMMEDIATELY AFTER LIFTOFF. USUALLY, THE OSCILLATION  
FREQUENCY WAS ABOUT 0.5 C/S. AS THE AMPLITUDE OF THE  
OSCILLATION INCREASED, THE FREQUENCY INCREASED TO ABOUT  
0.1 C/S AT T = 20 SECONDS. THE PEAK NORMAL ACCELERATION  
INDICATED BY AGORA TRANSMITTED DATA INCREASED GRADUALLY  
TO APPROXIMATELY 0.5 G AT T = 30 SECONDS. THESE PEAK  
ACCELERATIONS THEN INCREASED SLOWLY TO APPROXIMATELY  
0.2 G AT T = 44 SECONDS. AFTER T = 45 SECONDS THE NORMAL  
ACCELERATIONS WERE FREQUENTLY NEGATIVE, VARYING  
BETWEEN APPROXIMATELY -0.3 G AND -0.5 G UNTIL T = 57.5  
SECONDS WHEN THE MAGNITUDE INCREASED RAPIDLY TO ABOUT  
1 G AT T = 57.2 SECONDS. THE MAGNITUDE OF THE ACCELE-  
RATION WOULD INCREASE AFTER T = 58 SECONDS, BUT WAS  
BEYOND THE ACCELEROMETER CALIBRATION. THE AGORA  
TELEMETRY SIGNAL CUT OFF APPARENTLY AT T = 58.2 SECONDS,  
AND AT ABOUT THE TIME THE VTE TRI-HELIX LOST THE DOWNER

[REDACTED]

VYED



DISTRICT TELEMETRY SIGNALS  
 FROM TELEMETRY SHOWS MAIN ENGINE CUTOFF  
 AT T = 34.8 SECONDS. THE ENGINE CUTOFF WAS APPARENTLY  
 COMMANDS BY THE VEHICLE ENGINE CUTOFF CIRCUIT AFTER  
 THE CIRCUIT WAS ACTIVATED BY A STRUCTURAL FAILURE.  
 FROM THIS TELEMETRY INFORMATION WAS ALSO LOST AT  
 THE TIME. INITIAL PHOTOGRAPHS TAKEN FROM TRANSCULLON  
 FROM THE 700 PARADE / BUREAU GLENY / AT THE FORWARD  
 END OF THE EMERGENCY VEHICLE AT T = 32.73 SECONDS AND  
 T = 34.8 SECONDS. AT T = 42.27 SECONDS A FIRE IS APPARENT AT  
 THE VEHICLE FORWARD SECTION. AT T = 42.45 SECONDS THE  
 VEHICLE ENGINE PLANE INDICATES BURSTING MECS, AND BY  
 T = 43.2 SECONDS THE VEHICLE IS ENVELOPED BY FLAME. THE  
 PHOTOGRAPHS AN EXPLOSION AT T = 79.25 SECONDS. THE REMAIN-  
 ING TELEMETRY INFORMATION WAS LOST AT ABOUT THE  
 SAME TIME EVEN THOUGH THE TRANSMITTER CARRIER CONTINUED.  
 AT T = 44.1 SECONDS RANGE SAFETY TRANSMITTED A DISTRICT  
 SIGNAL. AT T = 183 SECONDS THE VTS VERRORT LOST THE AGORA  
 RADAR SIGNAL AND THE TLM-18 LOST THE ACCOUNTION  
 SIGNAL. THE TLM TELEMETRY CARRIER WAS RECEIVED  
 BY THE TLM-18 AT T = 213 SECONDS.

B. THE TELEMETRY DATA INDICATE THAT ALL OF THE



JAN 1968

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... THE ...  
 ... THAT THE ... RATE ...  
 ... WAS NOT ... TO THE ...  
 ... WERE ...  
 OR ... THE ... OSCILLA-  
 TOR AND THE ... DIFFERENTIAL  
 ... WAS APPARENTLY  
 ... IN A NORMAL MANNER.  
 ... TO  
 ... BECAUSE OF  
 ... FROM THE  
 ...  
 LOADS.

2. TRACKING DATA INDICATE THAT THE AGENDA REACHED  
 A ... AND THAT IT  
 ... FROM THE ... AT  
 ...

3. PAD DAMAGE ...  
 DAMAGE TO THE FACILITY AND ... WAS  
 LIGHT AND A ... IS EXPECTED.  
 REF 4.