

CD-5-1

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CONFIDENTIAL

*Vehicle
1113*

CLASSIFICATION CHANGED TO
SECRET
APR 205-2
APR 1966

WVZD OFFICIAL FILE CY

- SECRETARY OF DEFENSE AFB CALIF
- AIR FORCE SYSTEMS DIVISION LOS ANGELES CALIF
- ENGINEERING/SATELLITE/SUNNYVALE CALIF
- LOCKHEED MODEL 18 SPACE COMPANY SUNNYVALE CALIF
- LOCKHEED MODEL 18 SPACE COMPANY VANDERBILT AFB CALIF
- BOEING AIRCRAFT COMPANY VANDERBILT AFB CALIF
- WESTERN AIRCRAFT DIV VANDERBILT AFB CALIF /COURIER/
- GOVERNMENT ELECTRONICS AFB FLORIDA

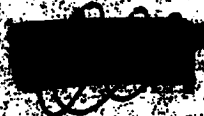
DOWNGRADED AT 3 YEAR INTERVALS
DECLASSIFIED AFTER 12 YEARS
DOB DIR 5200-10

SECRET FROM WVZD-11-9-1962

REQ FOR SEMI ANNUAL REPORT FOR COL MOORE SEMCLN LMSC/
SUNNYVALE FOR TROOP 4 (M.I.) DESIGNS; SEMCLN LMSC/VAFB FOR
DEPT 60 SEMCLN DAC/VAFB FOR MR. BECKMAN. INFO CLN I
STRAT AIRCRAFT DIV FOR COMMAND POST AND DOOPA SEMCLN
SECRET FOR COL WOODALL. SUBJECT CLN FLAG REPORT ON THE

12
SEP 61

OFFICE SYMBOL				
NAME (SIGNATURE)				<i>Cy # 6 of 6 up</i>
DATE				
AFBMD Form 11			LOCKE A. PRLEY, JR., Colonel, USAF	



CONTRACT NO. 100-1000000000000000

LAUNCHING OF DEWEEK 20 / SIGHT SIFT PRESSD

1. DEWEEK 20 CONSISTS OF THIRD BOOSTER NO. 210 AND
MAIN PAYLOAD STAGE NO. 1115 WAS LAUNCHED FROM VAFB
ON 12 SEP 61 AT 1200 GRS 11.7 PUT ON 12 SEP 61. THE
PURPOSE OF THIS LAUNCH WAS TO PLACE THE DEWEEK 20 SATEL-
LITE IN A SUNAR-POLAR ORBIT. WAS ACCOMPLISHED.
DATA TAKEN FROM THE VTE RADAR PLOTTING BOARD GIVE
AN EJECTION ALTITUDE OF 152 STATUTE MILES, AN EJECTION
VELOCITY OF APPROXIMATELY 25,400 FTS, AND AN EJECTION
FLIGHT PATH ANGLE OF ABOUT 7.1 DEGREE. TRACKING
STATIONS AT BEND AND MANAS HAVE CONFIRMED ORBITAL
FIXES THROUGH RECEPTION OF TELEMETRY AND RADAR
TRACK SIGNALS ON THE FIRST ORBIT PASS.

2. PRELIMINARY EVALUATION INDICATES THAT LAUNCH TEST
OBJECTIVES WERE ACHIEVED AS FOLLOWS / REFERENCE DETAILED
TEST OBJECTIVE, EXEC 40004, SECTION 1/.

A. DEWEEK 20 BOOSTER - OBJECTIVE ACHIEVED.

(1) VEHICLE POSITION, FLIGHT PATH ANGLE, AND VELOCITY
WERE WITHIN THE ESTABLISHED DEVIATION TOLERANCES AT
BOOSTER CUTOFF. THESE TOLERANCES ARE 5 N.M. FOR
POSITION, 2.0 DEGREE FOR FLIGHT PATH ANGLE.



CONVERTING TRANSMISSION APPARATUS
AND PROVISION FOR VELOCITY. PRODUCTION AND EVENT
COMMANDS WERE GENERATED AND TRANSMITTED SATISFACTORILY
BY THE GROUND GUIDANCE SYSTEM, AND VEHICLE RESPONSE TO
THE COMMANDS APPEARS TO HAVE BEEN PROPER. MECO OCCURRED
AT T TIME 141.50 SECONDS ON COMMAND FROM GROUND GUIDANCE.
VEHICLE ENGINE HOLD OPERATOR LASTED 9.8 SECONDS WITH
VCO OCCURRED AT T TIME 151.30 SECONDS. AT T TIME 161.50 SECONDS
GROUND GUIDANCE TRANSMITTED THE COMMAND WHICH INITIATED
SEPARATION OF THE ORBITAL STAGE FROM THE BOOSTER.

(2) NO OSCILLATIONS WERE APPARENT IN AGENA LOADS.
NORMAL LOADS AND THE DATA ACQUIRED PREVIOUS DISCOVER
IN SOME OF THE PEAK-TO-PEAK AMPLITUDES OF THE
OSCILLATIONS WAS APPROXIMATELY 1.2 AT T TIME 141 SECONDS.

B. AGENA AIRFRAME AND ADAPTER - OBJECTIVE ACHIEVED.

NO EVIDENCE OF STRUCTURAL PROBLEMS IN THE AGENA A
AIRFRAME OR ADAPTER HAS BEEN NOTED.

C. AGENA PROPELLER SYSTEM - OBJECTIVE ACHIEVED.

THE THRUST REQUIREMENT FOR ORBITAL STAGE SEPARATION
WAS MET BY THE RETRO-SOCKETS. AGENA ENGINE SHUTTER
OCCURRED AT T TIME 218.57 SECONDS IN A NORMAL MANNER
AND THE ENGINE OPERATED SATISFACTORILY FOR 218.94 SECONDS.

SENSITIVE INFORMATION AND DATA

[REDACTED]

Call

THE ENGINE STOPDOWN WAS COMMANDED BY THE INTEGRATOR AT 7.15 SECONDS WHEN THE INTEGRATOR DATA SHOWED A VELOCITY GAIN OF 14.02 IN. THE DOUBLE STOPDOWN IN THE AREA ENGINE WAS NECESSARY TO GIVE THE VEHICLE ORBITAL VELOCITY AT THE PLANT BURNING ALTITUDE.

B. AREA ELECTRICAL POWER SYSTEM - OBJECTIVE ACHIEVED.

NO PROBLEMS IN AREA ELECTRICAL POWER SYSTEM

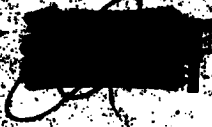
PROBLEMS WERE NOTED.

C. AREA GUIDANCE AND FLIGHT CONTROL SYSTEM - OBJECTIVE ACHIEVED.

THE AREA GUIDANCE SYSTEM PROPERLY RESPONDED TO THE 4.77 SECOND DRIFT-TO-DRIFT CORRECTION AND THE 2.94 SECOND VELOCITY DRIFT-GAINED CORRECTION COMMANDED BY THE AREA GUIDANCE SYSTEM. VEHICLE ATTITUDE APPEARS TO HAVE BEEN CONTROLLED SATISFACTORILY DURING THE COAST PHASE AND THE ORBITAL BURN PHASE, AND CONTROL GAS EXHAUSTION WAS NORMAL DURING BOTH OF THESE PHASES. SOME INTEGRATOR DRIFT IN THE DIRECTION TO INCREASE THE VELOCITY GAIN INCREMENT HAS BEEN NOTED BUT THE MAGNITUDE OF THE DRIFT HAS NOT YET BEEN DETERMINED. ENGINE STOPDOWN WAS COMMANDED BY THE INTEGRATOR IN A PROPER

FWED

[REDACTED]



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 AND ... OF ...

7. AREA ... SYSTEMS - ...

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 ... TRACKED THE ...
 ... AND THE ...

8. ... SYSTEMS - ...

... WAS ...
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 ... AND WITH THE ...
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9. ... SYSTEMS - ...

... WAS ...
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[Handwritten signature]
800: HAL
800: RPA

**REPAIRS TO THE ENGINE AND GEAR
AND PARTS ARE AVAILABLE FOR THE PERIOD FROM LEFT
OFF TO TUNE AND REPAIR. THE VIBRATION INDICATED
AND ANALYSIS AND SERIAL DATA RECORD FOR THE PERIOD FROM
LEFT TO LOSS OF TRACK. STATION OPERATIONS DURING
THE LAMINA OPERATION WERE APPROPRIATE.**

3. THE LAMINA OPERATION

**ONE HOUR OF OPERATING OPERATION WAS REQUIRED AT TUNING
ALONG WITH THE LEFT ONE OF THE SERIAL STAGE OPERATING
BOOK. THE FIELD TIME WAS REQUIRED DURING THE REPAIRS
OF THE OPERATIONS THAT LAMINA OCCURRED AT THE NORMAL
TIME.**

4. PAD DAMAGE

**PAD DAMAGE WAS IDENT AND A NORMAL RECOVERY SCHEDULE
IS EXPECTED.**

SEP 4

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[Redacted]