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PROGRAM 241

MISSILE: LV-2A No. 432 and S-01B No. 1611

LAUNCHED: 1344:54.81 PST, 25 February 1965, Complex PALC-1, Pad 1

LAUNCH CONTROLLERS: Capt Smathers & Capt Bellia

COUNTDOWN HISTORY:

First Countdown: The first countdown was initiated at 0315 PST on 19 February 1965 and proceeded to phase IV of terminal countdown when the launch was aborted due to a problem in the S-01B lifeboat system.

Second Countdown: The second countdown was initiated at 0245 PST on 25 February 1965 and proceeded to liftoff with one hold being imposed at T-45 minutes to adjust the countdown for the optimum launch time.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	60.00	60.16
MECO (Command For)	151.11	150.01
VECO	160.11	158.94
Separation	166.61	166.03
Ignition	172.10	170.91
Burnout (Shutdown by VM)	415.90	413.09

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,303	12,273
Injection Inertial Velocity (fps)	25,758	25,771
Apogee (nm)	200.8	204.3
Perigee (nm)	99.5	98.3
Period (min)	90.02	90.07
Inclination Angle (deg)	75.00	75.08

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdowns:

1. An amplifier circuit in the blockhouse landline monitoring equipment for S-01B guidance gas temperature malfunctioned and was replaced.
2. The communications system in the AFWR console in the blockhouse malfunctioned and was replaced.

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER
12 YEARS.
DOD DIR 5200.10

Control No. VWZDE 5-19

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PROGRAM 241

MISSILE: LV-2A No. 414 and SS-01A No. 1608

LAUNCHED: 1300:44.13 PST, 15 Jan 65, Complex 75-3, Pad 5

LAUNCH CONTROLLERS: Capt Sanders & Lt Sobel

COUNTDOWN HISTORY: The countdown was initiated at 0605 PST on 15 Jan 1965 and proceeded to liftoff with no holds imposed. This was the first countdown to employ a shorter revised procedure. Two tasks (orbital stage RF checkout and orbital stage guidance and flight control checkout) were performed prior to the countdown initiation. The length of the countdown was three hours and forty-five minutes shorter than previous countdowns.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	65.08
MECO (Command for)	147.58	150.25
VECO	156.58	159.08
Separation Complete	163.08	166.33
Ignition	168.58	171.30
Burnout (Shutdown by V)	413.41	414.43

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,281	12,300
Injection Inertial Velocity (fps)	25,813	25,823
Apogee (nm)	234.78	236.6
Perigee (nm)	100.26	99.6
Period (min)	90.67	90.67
Inclination Angle (deg)	75.00	74.95

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following problems were encountered with AGE during the countdown.

1. During Task 8 (Solid Motor Arming) the LMSC fuel sniffer was wet and had to be dried out.

2. During Task 6 (Payload checkout) improper positioning of the Vandenberg tracking station antenna delayed checkout of the SS-01A beacon.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 159th orbit. Both air recoveries were successful.

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Control No. WZDE 5-8

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3. One television monitor system malfunctioned. It was not repaired during the countdown.

4. The umbilical mast failed to retract at liftoff.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 145th orbit. Both air recoveries were successful.

Control No. VWZDE 5-19

PH Note: this is Page 2 of #D96 65-13 CORONA 92/KH-4A 1017-182

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PROGRAM 770

9th Mar (PW)

22 March 1965

MISSILE: SLV-2 No. 419 and SS-01A No. 2701

LAUNCHED: 1029:47.69 PST, 9 March 1965, Complex 75-1, Pad 2

LAUNCH CONTROLLERS: Capt Haber & Lt Johnson

COUNTDOWN HISTORY: The countdown was initiated at 0410 PST on 9 March 65 and proceeded to liftoff with no holds being imposed. Due to a delay encountered in payload mating (R-1 day) the vehicle was not raised to the vertical position until one hour before the start of the countdown. It was therefore necessary to complete final rigging of the umbilical lanyards during the countdown.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. MECO (Command for)	149.28	147.81
VECO	158.30	156.78
Separation	167.90	165.92
Ignition	202.45	199.74
Burnout (Shutdown by VM)	436.86	432.71

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	10,877	10,826
Injection Inertial Velocity (Final) (fps)	24,245	Not Available
Apogee (nm)	506.06	507.33
Perigee (nm)	504.14	504.06
Period (min)	103.52	103.57
Inclination Angle (deg)	69.76	69.91

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown.

1. During Task 11, two minor propellant leaks occurred in the IMSC AGE.
2. Calibration of DAC igniter test sets required more time than normal but did not delay the countdown.

REMARKS: There were no recoverable capsules in the payload of this vehicle. This was the first launch under program 770.

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Control NO. VWZDE 5-21

DOWNGRADED AT 3 YEAR INTERVALS;
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PROGRAM 241

MISSILE: LV-2A No. 429 and SS-01B No. 1612

LAUNCHED: 1311:17.54 PST, 25 Mar, 1965, Complex 75-3, Pad 4

LAUNCH CONTROLLERS: Capt Sanders & Capt MacNab

COUNTDOWN HISTORY: The countdown was initiated at 0605 PST on 25 March 1965 and proceeded to liftoff with one hold being imposed at T-16 minutes for range clearance (a train in the hazard corridor).

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	65.25
MECO (Command For)	149.44	148.50
VECO	158.44	157.43
Separation	164.94	164.64
Ignition	170.44	169.40
Burnout (Shutdown by VM)	416.06	414.63

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	11,813	11,792
Injection Inertial Velocity (fps)	25,655	25,665
Apogee (nm)	143.64	149.98
Perigee (nm)	99.68	101.20
Period (min)	88.97	89.04
Inclination Angle (deg)	96.00	96.01

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problem was encountered during the countdown:

1. In Task 4 (orbital stage destruct arming), a nitrogen purge gas leak occurred in the flex line portion of the IMSC oxidizer vent line. The leak was isolated to the section located between the umbilical mast and the revetment wall. Replacement of one section of the flex line corrected the leak.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 66th orbit and the second on the 99th orbit. Both air recoveries were successful.

Control No. VWZDE 5-27

DOWNGRADED AT 3 YEAR INTER-
VALS; DECLASSIFIED AFTER
12 YEARS.
DOD DIR 5200.10

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~~CONFIDENTIAL~~MISSILE: SLV-2A No. 437 and SS-01B No. 1614LAUNCHED: 1444:56.53 PDT, 29 April 1965, Complex PALC-1, Pad 1LAUNCH CONTROLLERS: Capt Bellia and Lt KlimaCOUNTDOWN HISTORY:

First Countdown: The first countdown was initiated at 0610 PDT on 28 April 1965, and proceeded through completion of Task 9 (Gantry Removal). At 1230 PDT an operational hold was imposed to allow completion of another operation. At 1340 PDT the countdown was aborted by Air Force direction because of confliction with the other operation.

Second Countdown: The second countdown was initiated at 0655 PDT on 29 April 1965, and proceeded to liftoff with no holds being imposed. This was the first shortened countdown (470 minutes) to be conducted at PALC-1, Pad 1.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	56.00	56.28
MECO (Command For)	151.00	150.13
VECO	159.90	159.06
Separation	166.50	166.22
Ignition	171.95	171.07
Burnout (Shutdown by VM)	420.96	416.70

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,178	12,198
Injection Inertial Velocity (fps)	25,849	25,860
Apogee (nm)	255.07	260.10
Perigee (nm)	100.04	99.80
Period (min)	91.06	91.12
Inclination Angle (deg)	85.02	85.04

AEROSPACE GROUND EQUIPMENT PERFORMANCE: There were no AGE problems encountered during the Countdown.

REMARKS: There were two recoverable capsules in the payload of this vehicle. The first capsule was ejected on the 80th orbit and successfully recovered by air. The second capsule was ejected on the 143rd orbit and was not successful.

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Control No. VWZDE 5-29

DOWNGRADE AT 3 YEAR INTERVALS;
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#1374 65-37
CORONA 95/KH-4A 1021-182

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PROGRAM 241

MISSILE: SLV-2A No. 438 and SS-01B No. 1615

LAUNCHED: 1102:18.74 PDT, 18 May 1965, Complex 75-3, Pad 4

LAUNCH CONTROLLERS: Capt Sanders & Lt Burch

COUNTDOWN HISTORY: The countdown was initiated at 0405 PDT on 18 May 1965, and proceeded to liftoff with one hold imposed at T-12 minutes (1048 - 1049 PDT) to allow time for WECO ground guidance station to recycle their equipment after receiving a liftoff indication originating from an unknown source.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	65.54
MECO (Command For)	149.86	148.86
VECO	158.86	157.79
Separation	165.36	164.55
Ignition	170.86	169.82
Burnout (Shutdown by VM)	415.12	412.05

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,214	12,236
Injection Inertial Velocity (fps)	25,674	25,665
Apogee (nm)	183.13	180.60
Perigee (nm)	109.56	109.90
Period (min)	89.87	89.84
Inclination Angle (deg)	75.01	75.04

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown:

1. The main LOX drain valve (LH-15) in the DAC AGE malfunctioned and was replaced.

2. A special tool required for installation of the vehicle destruct battery was not available on the pad for the countdown.

Control No. VWZDE 5-37

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3. During countdown evaluation (Task 12) WECO guidance console received two unprogrammed liftoff signals. Each time the WECO equipment was recycled to eliminate the false indication. The cause of this problem has not yet been determined.

REMARKS:

This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 161st orbit. Both air recoveries were successful.

DOWNGRADED AT 3 YEAR INTER-
VALS; DECLASSIFIED AFTER
12 YEARS.
DOD DIR 5200.10

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PROGRAM 241

#1396 65-45
CORONA 96/KH-4A 1020-182

MISSILE: LV-2A No. 444 and SS-01B No. 1613

LAUNCHED: 1458:16.35 PDT, 9 June 1965, Complex 75-3, Pad 5

LAUNCH CONTROLLER: Capt Sanders

COUNTDOWN HISTORY:

First Countdown: The first countdown was initiated at 0636 PST on 20 April 1965, but was cancelled at 0957 PST due to a payload problem.

Second Countdown: The second countdown was initiated at 0806 PDT on 9 June 1965 and proceeded to liftoff with no holds being imposed.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	65.29
MECO (Command For)	150.31	151.12
VECO	159.31	160.03
Separation	165.81	167.25
Ignition	171.31	172.05
Burnout (Shutdown by VM)	415.15	412.47

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,310	12,325
Injection Inertial Velocity (FPS)	25,762.1	25,770.1
Apogee (nm)	201.4	198.8
Perigee (nm)	99.3	97.0
Period (min)	90.01	89.87
Inclination Angle (deg)	75.01	75.08

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the first countdown.

1. Excessive communications problems were encountered. They included loss of voice communications between the blockhouse and LOCC, loss of the pad public address system, and malfunctioning headsets.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 97th orbit and the second on the 113th orbit. Both air recoveries were successful.

Control No. VWZDE 5-38

DOWNGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5300.10

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RV-1 Air
RV-2 Water??

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19 July 65

4. During Task 11, LMSC personnel were sent to the pad to adjust the guidance gas pressure regulator.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 65th orbit and the second on the 144th orbit. Both air recoveries were successful.

PH Note: This is Page 2 of #1457 65-57 CORONA 97/1KH-4A 1022-182

DOWNGRADED AT 3 YEAR INTERVALS;
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DOD DIR 5200.10

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PROGRAM 770

MISSILE: SLV-2A No. 422 and SS-01B No. 2702

LAUNCHED: 2255:01.07 PDT, 16 July 1965, Complex 75-1, Pad 2

11 AUG 1965

LAUNCH CONTROLLER: Capt Haber

COUNTDOWN HISTORY: The countdown was initiated at 1225 PDT on 16 July 1965 and proceeded to liftoff with two holds imposed totaling 87 minutes. Hold No. 1 was imposed at T-16 minutes to complete work which had fallen behind schedule. Hold No. 2 was imposed during the terminal count when Vandenberg Tracking Station reported abnormal readings on two SS-01B and one payload mandatory T/M measurements.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. MECO (Command for)	149.94	148.78
VECO	158.94	157.75
Separation	165.44	164.96
Ignition	200.94	199.69
Burnout (Shutdown by VM)	435.32	Not Available

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,330	12,354
2nd Injection Inertial Velocity (fps)	25,002	Not Available
Apogee (nm)	263.64	283.61
Perigee (nm)	272.31	265.21
Period (min)	94.33	94.47
Inclination Angle (deg)	70.16	70.16

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown.

1. In Task 2, one of the communications net circuits between the LMSC test conductor in the blockhouse, and the Vandenberg Tracking Station, was found not be completed.
2. In Task 6, destruct checks, the pad liftoff signal was not received at the range control officers console. Investigation revealed a misplaced communications patch in the range communications center.

REMARKS: There were no recoverable capsules in the payload of this vehicle. This was the second launch under program 770.

Control No. WZDE 5-52

DOWNGRADED AT 3 YEAR INTER-
VALS; DECLASSIFIED AFTER
12 YEARS.
DOD DIR 5200.10

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PROGRAM 241

MISSILE: SLV-2A No. 446 and SS-01B No. 1617

LAUNCHED: 1501:12.91 PDT, 19 July 1965, Complex PALC 1, Pad 1 11 AUG 1965

LAUNCH CONTROLLERS: Capt Smathers & Capt Hillard

COUNTDOWN HISTORY: The countdown was initiated at 0800 PDT on 19 July 1965, and proceeded to liftoff with one hold being imposed. The hold was imposed at T-20 minutes from 1441 PDT to adjust the countdown for liftoff at 1501 PDT.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	56.00	55.82
MECO (Command For)	149.88	149.62
VECO	158.88	158.56
Separation	165.38	165.85
Ignition	170.88	170.50
Burnout (Shutdown by VM)	418.07	414.89

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,156	12,182
Injection Inertial Velocity (fps)	25,849	25,849
Apogee (nm)	254.9	254.7
Perigee (nm)	99.9	100.1
Period (min)	91.06	91.05
Inclination Angle (deg)	85.01	85.06

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown.

1. The VADE computer at the LMSC MAB experienced technical problems and gave limited support during the countdown.
2. Voice communication was lost at blockhouse station 70 during task six.
3. During gantry removal, a mechanical conflict occurred between the cable support arm on the umbilical mast and the retracted gantry platform for the 70 foot level.

Control No. VWZDE 5-53

DOWNGRADED AT 3 YEAR INTER-
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12 YEARS.
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Program 241 - Launch Summary

27 AUG 1965

MISSILE: SLV-2A No. 449 and SS-01B No. 1618

LAUNCHED: 1359:57.15 PDT, 17 August 1965, South Vandenberg Complex I,
Pad 1

LAUNCH CONTROLLERS: Capt Hilliard & Capt Bellia

COUNTDOWN HISTORY: The countdown was initiated at 0601 PDT on 17 August 1965 and proceeded to liftoff with one operational hold imposed at T-12 minutes at 1249 PDT for AFWTR clearance (ships in the solid motor drop area). The hold was extended due to trains in the hazard area and the countdown was resumed at 1348 PDT, proceeding to liftoff with no further holds.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	56.00	55.88
S-1 Command for MECO	150.45	149.41
VECO	159.45	158.36
Separation Command (S-2)	163.45	163.05
SS-01B Engine Ignition	171.45	170.35
Engine Shutdown by Velocity Meter	415.03	411.83
2. Both Thor and Agena Airborne Systems performed satisfactorily.		
3. Period (min)	90.50	90.55
Inclination Angle (deg)	70.00	70.0
Eccentricity	.0177	.018
Apogee (nm)	227.0	230.4
Perigee (nm)	99.5	100.5
Argument of Perigee (deg)	158	151

AEROSPACE GROUND EQUIPMENT PERFORMANCE:

During countdown evaluation, the Vandenberg Tracking Station reported an erroneous reading for SS-01B Lifeboat gas temperature. Satisfactory temperature was verified by the blockhouse landline data.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 144th orbit. Both air recoveries were successful.

Control No. VWZDE 5-58

DOWNGRADED AT 3 YEAR INTER-
VALS; DECLASSIFIED AFTER
12 YEARS.
DOD DIR 5200.10

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PROGRAM 241

MISSILE: SLV-2 No. 401 and SS-01A No. 1602

LAUNCHED: 1300:16.43 PDT, 2 September 1965, Complex 75-3, Pad 5

LAUNCH CONTROLLER: Capt Sanders

First Countdown: The first countdown was initiated at 0705 on 31 August 1965 and proceeded to T-1 second, when it was aborted due to a malfunction in the Rocketdyne Engine Relay Box.

Second Countdown: The second countdown was initiated at 0705 PDT on 2 September 1965 and proceeded to liftoff with one hold imposed at T-20 minutes from 1155 to 1240 for range clearance (trains in the launch area).

REMARKS: The powered flight of this vehicle was terminated at T+60.57 seconds when a command destruct signal was issued by the AFWTR MFSO. The command was sent when the impact predictor plot-board indicated that the instantaneous impact point had crossed the easterly destruct limit. A mishap investigation board was convened to determine the cause of the deviation in the flight path of this vehicle.

DOWNGRADED AT 3 YEAR INTER-
VALS; DECLASSIFIED AFTER
12 YEARS.
DOD DIR 5200.10

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Control No. VWZDE 5-63

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PROGRAM 241

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MISSILE: SLV-2A No. 458 and SS-01B No. 1619

LAUNCHED: 1431:14.80 PDT, 22 September 1965, Complex PALC 1, Pad 1

LAUNCH CONTROLLERS: Capt Bellia & Lt Kline

COUNTDOWN HISTORY: The countdown was initiated at 0730 PDT on 22 September 1965, and proceeded to liftoff with no holds imposed.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	60.00	59.93
MECO (Command For)	147.61	148.43(Fuel Depl.)
VECO	156.61	157.40
Separation	163.01	164.52
Ignition	168.61	169.30
Burnout (Shutdown by VM)	416.98	417.80(OX Depl.)

2. The Thor Airborne System had a fuel depletion and Agena had an apparent OX depletion resulting in an unspecified orbit of the payload.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,262	12,194
Injection Inertial Velocity (fps)	25,833	25,770
Apogee (nm)	245.3	208.2
Perigee (nm)	99.9	97.4
Period (min)	90.87	90.16
Inclination Angle (deg)	80.00	80.06

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown.

1. During task 7, the SS-01B T/M-Link II signal level was low. An AGE umbilical RF connector was retorqued, which corrected the problem.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 161st orbit. Both air recoveries were successful.

Control No. VWZDE 5-66

DOWNGRADED AT 3 YEAR INTER-
VALS; DECLASSIFIED AFTER
12 YEARS.
DOD DIR 5200.10

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PROGRAM 241

2 NOV 1965

MISSILE: SLV-2A No. 433 and SS-01B No. 1616

LAUNCHED: 1045:57.45 PDT, 5 October 1965, Complex 75-3, Pad 5

LAUNCH CONTROLLERS: Capt Sanders & 1/Lt Sobel

COUNTDOWN HISTORY: The countdown was initiated at 0416 PDT on 5 October 1965 and proceeded to liftoff with no holds imposed. In order to integrate with another operation, the command destruct and destruct arming tests were performed prior to opening the countdown.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	65.34
MECO (Command For)	148.88	148.59
VECO	157.88	157.53
Separation	164.40	164.85
Ignition	169.88	169.54
Burnout (Shutdown by VM)	413.58	412.47

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,291	12,313
Injection Inertial Velocity (fps)	25,678	25,656
Apogee (nm)	184.2	180.7
Perigee (nm)	109.4	112.2
Period (min)	89.87	89.78
Inclination Angle (deg)	75.01	75.04

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown.

1. An SLV-2A engine regulated pressure indication was not received in the blockhouse console. Investigation revealed that umbilical plug number 714 was not making contact. The plug was resealed and a normal indication was received.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 161st orbit. Both air recoveries were successful.

Control No. VWZDE 5-69

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PROGRAM NASA

2 NOV 1965

MISSILE: SLV-2A No. 435 and SS-01B No. 6801

LAUNCHED: 0611:55.00 PDT, 14 October 1965, Complex 75-1, Pad 1

LAUNCH CONTROLLERS: 1/Lt Johnston & 1/Lt Klinger

COUNTDOWN HISTORY: The countdown was initiated at 2018 PDT on 13 October 1965 and proceeded to liftoff with one hold of four minutes duration imposed during the terminal count for range safety (ships in the solid motor bottle drop area).

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	65.20
MECO (COMMAND FOR)	148.16	150.46 (LOX Depl)
VECO	157.16	159.34
Separation	163.66	167.70
Ignition	247.16	249.42
Burnout (Shutdown by VM)	489.00	490.35

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	11,356	11,873
Injection Inertial Velocity (fps)	25,584	26,048
Apogee (nm)	503.5	785.0
Perigee (nm)	179.9	221.8
Period (min)	97.33	104.00
Inclination Angle (deg)	86.00	87.35

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown.

1. In Task 3, a union in the DAC pad facility nitrogen supply plumbing was found cracked.

2. At the beginning of Task 11, communications between the blockhouse photographic console and the gantry were lost.

3. In Task 11, a personnel high lift malfunctioned.

REMARKS: The primary launch objective, to have a SLV-2A/SS-01B combination place the NASA OGO spacecraft in a specified orbit, was not achieved. Orbit was achieved but it was not within any of the specified tolerances. This was caused by failure of the WECO Ground Guidance System to acquire and command the SLV-2A/SS-01B combination.

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16 NOV 1965

PROGRAM 241

MISSILE: SLV-2A No. 439 and SS-01B No. 1620

LAUNCHED: 1417:12.71 PDT, 28 October 1965, South Vandenberg AFB Complex 1,
Pad 1

LAUNCH CONTROLLERS: Capt Hilliard & Capt Smathers

COUNTDOWN HISTORY: The countdown was initiated at 0701 PDT on 28 Oct 1965, and proceeded to liftoff with one hold of 15 minutes duration imposed at T-16 minutes due to problems encountered during simultaneous payload and WECO checks.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	56.00	55.74
MECO (command For)	149.72	147.86
VECO	158.72	156.79
Separation	165.22	163.64
Ignition	170.72	168.71
Burnout (Shutdown by VM)	414.96	412.18

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,381	12,420
Injection Inertial Velocity (fps)	25,822	25,841
Apogee (nm)	238.1	242.5
Perigee (nm)	99.8	95.2
Period (min)	90.72	90.77
Inclination Angle (deg)	75.00	74.98

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problem was encountered during the countdown.

1. A reset signal was not received at any station outside of the blockhouse due to a Kellogg equipment relay malfunction. The equipment was repaired and the reset signal verified at all stations.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 160th orbit. Both air recoveries were successful.

Control No. VWZBC 5-71

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PROGRAM NASA

5 JAN 1966

MISSILE: SLV-2 No. 453 and S-01 No. 6102

LAUNCHED: 2048:47.05 PST, 28 November 1965, Complex 75-1, Pad 1

LAUNCH CONTROLLERS: Capt Haben. & Lt Klinger

COUNTDOWN HISTORY:

First Countdown: The first countdown was initiated at 1134 PST, 27 November 1965 and was aborted at 2324 PST during Phase V of terminal count due to an inability of the Range Tracking Radar to lock on the C-Band Beacon.

Second Countdown: The second countdown was initiated at 1134 PST, 28 November 1965 and proceeded to liftoff with no holds imposed.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. MECO (COMMAND FOR)	147.83	149.35
VECO	156.83	158.33
Separation	163.97	165.98
Ignition	188.78	189.41
Burnout (Shutdown by VM)	420.11	421.83

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
3. MECO Inertial Velocity (fps)	11,095	11,131
Apogee (nm)	1619.70	1609.00
Perigee (nm)	268.86	270.00
Period (min)	121.41	121.40
Inclination Angle (deg)	79.91	79.80

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdowns.

1. A hold was imposed during Terminal Count due to a misadjustment of the liftoff switch. A shim was installed to hold the switch in proper position.
2. In task 12, the final cool payload module on the Type 45 Air Conditioner (LMSC) malfunctioned.

REMARKS: This was the second Thor/Agena launch under the NASA Program during Calender Year 1965. Both launches were from Complex 75-1, Pad 1.

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PROGRAM 241

5 JAN 1966

MISSILE: SLV-2A No. 448 and SS-01B No. 1621

LAUNCHED: 1310:19.60 PST, 9 December 1965, SLC #2, Pad 5

LAUNCH CONTROLLERS: Capt McNab & Lt Burch

COUNTDOWN HISTORY:

First Countdown: The first countdown was initiated at 0516 PST on 8 December 1965, but was aborted in Task 9 (Orbital Stage Propellant Tanking) at 1305 PST when it was determined that insufficient time remained to repair a LMSC AGE propellant leak and launch within the scheduled window.

Second Countdown: The second countdown was initiated at 0601 PST, 9 December 1965 and proceeded to liftoff with one hold imposed at T-20 minutes to adjust the countdown to an optimum liftoff time.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	64.82
MECO (Command For)	149.11	150.76
VECO	158.11	159.74
Separation	165.61	165.93
Ignition	170.11	171.66
Burnout (Shutdown by VM)	409.02	412.79

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,159	12,176
Injection Inertial Velocity (fps)	25,831	25,833
Apogee (nm)	244.71	243.9
Perigee (nm)	99.63	98.9
Period (min)	90.86	90.84
Inclination Angle (deg)	80.00	80.06

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problems were encountered during the countdown.

1. In Task 9, an LMSC AGE propellant leak caused the first countdown to be aborted.

2. During the second countdown there was a leak in the LMSC AGE oxidizer fill line between the mast and pad revetment. The section was replaced and leak checked.

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REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 17th orbit and the second on the 33rd orbit. Both air recoveries were successful.

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PROGRAM 241

18 JAN 1968

MISSILE: SLV-2A No. 451 and SS-01B No. 1610

LAUNCHED: 1306:15.83 PST, 24 December 1965, Complex 75-3, Pad 4

LAUNCH CONTROLLERS: Lt Sobel and Capt Sanders

COUNTDOWN HISTORY: The countdown was initiated at 0501 PST on 24 December 1965 and proceeded to liftoff with one hold imposed at T-12 minutes (1249 to 1254 PST) due to a train in the hazard area.

FLIGHT PERFORMANCE:

<u>Event</u>	<u>Predicted Time</u>	<u>Actual Time</u>
1. Solid Separation	65.00	64.86
MECO (Command For)	148.77	150.81
VECO	157.77	159.81
Separation	164.27	165.80
Ignition	169.77	171.73
Burnout (Shutdown by VM)	415.25	415.39

2. Both Thor and Agena Airborne Systems performed satisfactorily.

<u>Event</u>	<u>Predicted</u>	<u>Actual</u>
3. MECO Inertial Velocity (fps)	12,253	12,252
Injection Inertial Velocity (fps)	25,832	25,841
Apogee (nm)	244.74	245.1
Perigee (nm)	99.66	99.0
Period (min)	90.86	90.84
Inclination Angle (deg)	79.99	80.02

AEROSPACE GROUND EQUIPMENT PERFORMANCE: The following AGE problem was encountered during the countdown.

1. In Task 10, the DAC missile bottle pressurizing valve did not close until the missile bottle pressure reached 2800 psi (the valve normally closes at 2000 psi). No repairs were made. The operating pressure is 3000 psi during terminal count so operation of the valve was assured.

REMARKS: This vehicle carried two recoverable capsules. The first capsule was ejected on the 81st orbit and the second on the 114th orbit. Both air recoveries were successful.

Control No. VWZBC 6-7

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