SATURN HISTORY DOCUMENT
University Of Alabama Research Institute
History Of Science & Technology Group
Doc. No.
Date

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SATURN HISTORY DOCUMENT
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CATALOG OF LAUNCH VEHICLE TESTS

SATURN V

APOLLO/SATURN 502
VOL. 1

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V-24090-SIVB2	PROPULSION SUBSYSTEM CHECKOUT	
V-24091-SIVB2	STAGE ENGINE SEQUENCE TEST	
V-24092-SIVB2	APS MODULE CHECKOUT	
V-24093-SIVB2	PROPELLANT TANK FULL PRESSURE TEST	
V-24098-SIVB2	HYDRAULIC SUBSYSTEM CHECKOUT	
V-24102-SIVB2	FLIGHT ELECTRICAL BOX LEAK CHECK	
V-24106-SIVB2	S-IVB POST LOADING LEAK CHECKS	
V-24116-SII2	PROPELLANT FEED & RECIRCULATION LINES VACUUM CHECK	DOP- C02-
V-24117-SII2	ENGINE SYS LEAK & FUNCTIONAL TEST (HIGH BAY)	DOP- C02-
V-24122-SII2	THRUST CHAMBER CHILL TEST	DOP-
V-24123-SII2	ENGINE START TANK CHILLDOWN, & START TANK & HE BOTTLE PRESSURIZATION	DOP- C02-
V-24124-SII2	ENGINE CHECKOUT (LOW BAY) LEAK CHECK &	DOP-

	FUNCTIONAL TEST	C02-
V-24125-SII2	ENGINE SYS VALVE TIMING SEQUENCE TEST	DOP-
V-24117-SII2	DETAILED OPERATING PROCEDURE - ENGINE SYSTEM LEAK & FUNCTIONAL TEST (HIGH BAY)	

LVO TASK - PROPELLANT SYSTEMS 25000 - 25999

V-25000-SIC2	RP-1 AUTO LOADING TEST	
V-25003-GSE39A	RP-1 STANDBY PROCEDURE	
V-25004-GSE39A	RP-1 SYS CHK VALVE INTERNAL LEAKAGE TEST	
V-25005-GSE39A	RP-1 SYS PNEU VALVE INTERN LEAKAGE TEST	
V-25006-ML	RP-1 ML TO GROUND DISCONNECT REMOVAL	
V-25008-ML	RP-1 ML PURGE SYS C/O PROCEDURE	
V-25011-GSE39A	RP-1 TEMP SWITCH TEST	
V-25014-ML	RP-1 LEVEL ADJUST VALVE TEST	
V-25017-ML	RP-1 ML PNEU VALVE C/O & CONT SYS LEAK CK	
V-25018-ML	RP-1 ML LINE LEAK CHECK	
V-25019-GSE39A	RP-1 SYS RELIEF VALVE TEST	
V-25023-GSE39A	LH2 SYS RELIEF VALVE C/O PROCEDURE	
V-25044-GSE39A	LH2 STOR TANK LIQ LEVEL SYS C/O PROC	
V-25076-GSE39A	DTS INTEGRATION LCC/PTCR	1G105
V-25078-GSE39A	DEE SELF CHECK	1G109
V-25079-GSE39A	S-IC PTCS PRE-OP C/O (LCC)	1G111
V-25080-GSE39A	S-II PTCS PRE-OP C/O (LCC)	1G112
V-25081-GSE39A	S-IVB PTCS PRE-OP C/O (LCC)	1G113
V-25082-GSE39A	S-IC PTCS PRE-OP C/O (LUT)	1G114
V-25083-GSE39A	S-II PTCS PRE-OP C/O (LUT)	1G115
V-25084-GSE39A	S-IVB PTCS PRE-OP C/O (LUT)	1G116
V-25086-GSE39A	S-IC PTCS OP C/O (LCC/PTCR)	1G118
V-25087-GSE39A	S-II PTCS OP C/O (LCC/PTCR)	1G119
V-25088-GSE39A	S-IVB PTCS OP C/O (LCC/PTCR)	1G120
V-25089-GSE39A	PTCS PRE-OPINTER. CONN. (LUT)	1G121
V-25090-GSE39A	S-IC PTCS OP C/O (LUT)	1G122
V-25091-GSE39A	S-II PTCS OP C/O (LUT)	1G123
V-25092-GSE39A	S-IVB PTCS OP C/O (LUT)	1G124
V-25093-GSE39A	S-IC PTCS INTEGRATION (LCC/PTCR/LUT)	1G125
V-25094-GSE39A	S-II PTCS INTEGRATION (LCC/PTCR/LUT)	1G126
V-25095-GSE39A	S-IVB PTCS INTEGRATION (LCC/PTCR/LUT)	1G127
V-25096-GSE39A	F/T OF LUT PROP LOADING SYS (VAB)	1G133
V-25097-GSE39	DEE SYS INTEGRATION (LCC/PTCR)	1G134
V-25098-GSE39	PTCS TOWER IN INTERFACE CHECK (LUT)	1G135
V-25099-GSE39A	PTCS SIM PRE OP C/O (PTCR)	1G137
V-25100-GSE39A	PTCS COMPUTER INTERFACE C/O	1G138
V-25102-GSE39A	S-II PTCS INTEGRATED VAB C/O (LUT)	1G185
V-25103-GSE39A	S-IVB PTCS INTEGRATED VAB C/O (LUT)	1G186
V-25104-GSE39A	S-IC PTCS INTEGRATED VAB C/O (LUT)	1G187
V-25105-GSE39A	S-IVB LH2/PTCS INTEG DYN C/O (LCC/PTCR/ LUT)	1G188
V-25106-GSE39A	S-IVB LOX/PTCS INTEG DYN C/O (LCC/PTCR/ LUT)	1G189
V-25107-GSE39A	S-II LOX/PTCS INTEG DYN C/O (LCC/PTCR/ LUT)	1G190
V-25108-GSE39A	DYNAMIC SIMULATOR FUNC TEST	1G191
V-25109-GSE39A	S-IC RP-1/PTCS INTEG DYN C/O (LCC/PTCR/ LUT)	1G192
V-25110-GSE39A	S-II LH2/PTCS INTEG DYN C/O (LCC/PTCR/ LUT)	1G193
V-25111-GSE39A	S-IC LOX/PTCS INTEG DYN C/O (LCC/PTCR/ LUT)	1G194
V-25112-GSE39A	DTS WIDEBAND VIDEO CABLE C/O (LCC/PTCR)	1G302

V-25113-GSE39A	PROPELLANTS INSTRUMENTATION CALIB	6G140
	LOX SYS INITIAL POWER ON (LCC)	6G143
V-25114-GSE39A	LOX INTEGRATION (LCC/PTCR)	6G145
V-25115-GSE39A	LOX SYS MALFUNCTION TEST	6G147
V-25116-GSE39A	LOX SIMULATED LOADING TEST	6G148
V-25118-GSE39A	LOX MAIN & REPLENISH PUMP AUTO FLOW CONT	6G150
V-25121-GSE39A	LH2 INTEGRATION (LCC/PTCR)	6G163
V-25122-GSE39A	LH2 INTEGRATION (LCC/PTCR/S/A)	6G164
V-25123-GSE39A	LH2 MALFUNCTION TEST	6G166
V-25126-GSE39A	LH2 SIMULATED LOADING TEST	6G169
V-25127-GSE39A	RP-1 INTEGRATION (LCC/PTCR)	6G183
V-25128-GSE39A	RP-1 INTEGRATION (LCC/PTCR/S/A)	6G184
V-25130-GSE39A	RP-1 MALFUNCTION TEST	6G187
V-25132-GSE39A	RP-1 SIMULATED LOADING TEST	6G189
V-25133-GSE39A	SIC PTCS PRELOADING PROC (CANCELLED)	1G195
V-25134-GSE39A	SII PTCS PRELOADING PROC (CANCELLED)	1G196
V-25135-GSE39A	SIVB PTCS PRELOADING PROC (CANCELLED)	1G197
V-25138-GSE39A	LOX SYS PREPS FOR VEH LOADING	6G229
V-25143-GSE39A	R-P1 STORAGE TANK RELIEF VLV AND PRESSURE SYSTEM TEST	6G275
V-25145-GSE39A	RP-1 SHOCK ARRESTOR SUC PROC	6G290
V-25147-SII2	PROPELLANT LEVEL SENSOR FUNCTIONAL	
V-25148-SII2	AUTO PROPELLANT UTILIZATION FUNCTIONAL	
V-25149-SII2	AUTO PROPELLANT LEVEL & DEPLETION SENSOR FUNCTIONAL	
V-25150-SII2	VERIFICATION OF CAPACITANCE PROBES (LOW BAY)	
V-25151-SII2	PROPELLANT UTILIZATION CALIBRATION & FUNCTIONAL TEST	
V-25152-ML	LH2 ML RELIEF VALVE C/O	
V-25155-ML	RP-1 ML RELIEF VALVE C/O	

LVO TASK - MECHANICAL GSE 26000 - 26999	
V-26002-ML	PNEUMATIC CONSOLES & HEAT ECHANGER CHECKOUT
S-V-26003-ML	UMBILICAL LINE BLOWDOWN
V-26005-ML	PNEUMATIC CONSOLE MODEL 436 CHECKOUT
V-26006-GSE39	PNEUMATIC CONSOLE TRANSDUCER, PRESSURE SWITCH & LCC METER CALIBRATION, LC39
V-26044-ML	HOLDDOWN ARM SYSTEM MANUAL MOTION CHECK
V-26048-ML	SERVICE ARM CONTROL SWITCH SYSTEM SUB-SYSTEM FUNCTIONAL
V-26049-ML	SERVICE ARM CONTROL SWITCH SYSTEM COMPONENT CHECKOUT
V-26070-ML	TAIL SERVICE MAST SYSTEM LCC INTEGRATION
V-26071-ML	TAIL SERVICE MAST SYSTEM RETRACT TIME TEST
V-26072-ML	TAIL SERVICE MAST SYSTEM LOW PRESSURE RETRACT TEST
V-26074-ML	TAIL SERVICE MAST SYSTEM COMPONENT CHECKOUT
V-26083-ML	VAB ENGINE SERVICE PLATFORM CHECKOUT
V-26084-ML	LUT LEVEL PLATFORM CHECKOUT
V-26115-ML	INDUSTRIAL WATER SYSTEM LCC INTEGRATION
V-26116-ML	INDUSTRIAL WATER SYSTEM LUT SUB-SYSTEM FUNCTIONAL
V-26118-ML	INDUSTRIAL WATER SYSTEM LUT VALVE CHECKOUT
V-26122-ML	INDUSTRIAL WATER SYSTEM LUT LINE FILL & PRESSURE CHECKS
V-26160-GSEVAB	VAB ENVIRONMENTAL CONTROL SYSTEM FUNCTIONAL
V-26161-GSEVAB	VAB ENVIRONMENTAL CONTROL SYSTEM COMPONENT SUB-SYSTEM CHECKOUT
V-26162-GSEVAB	VAB ENVIRONMENTAL CONTROL SYSTEM CONTROL AIR PNEUMATICS SUB-SYSTEM CHECK
V-26163-GSEVAB	VAB ENVIRONMENTAL CONTROL SYSTEM HOT/ COLD WATER SUB-SYSTEM CHECK
V-26009-GSE39	GEN OPER PROC - MODEL A 7-119 PORTABLE HE LEAK DETECTOR
V-26041-ML	HOLDDOWN ARM SYSTEM LCC INTEGRATION
V-26042-ML	HOLDDOWN ARM SYSTEM FUNCTIONAL TEST
V-26043-ML	HOLDDOWN ARM SUB-SYSTEM FUNCTIONAL TEST
V-26045-ML	HOLDDOWN ARM RELEASE PANEL CHECKOUT
V-26046-ML	HOLDDOWN ARM UPPER LINK PRELOADING PROC
V-26047-ML	SERVICE ARM CONTROL SWITCH SYS LCC INTEGRATION
V-26076-ML	PLATFORM SYS INTEGRATION FUNCTION TEST - PAD A
V-26078-GSE39A	VAB ENGINE SERVICE PLATFORM (ESP) SUB-SYS FUNCTIONAL TEST
V-26079-ML	LUT LEVEL PLATFORM (LLP) SUB-SYS FUNCTIONAL TEST
V-26080-GSE39A	PAD ENGINE SERVICE PLATFORM (ESP) SUB-SYS FUNCTIONAL TEST
V-26087-ML	PLATFORM WINCH CHECKOUT

LVO TASK - MEASURING SYSTEMS 27000 - 27999

V-27000-GSELCC	LCC MEASURING STATION GENERAL PERFORMANCE & EQUIPMENT CERTIFICATION TEST	
V-27009-GSEVAB	VM-GSE CHECKOUT TESTS	2G108
V-27010-GSEVAB	SIC MODULE TEST SET FUNCTIONAL & CALIBRATION TEST	2G111
V-27011-GSEVAB	SII MODULE TEST SET FUNCTIONAL & CALIBRATION TEST	2G114
V-27012-GSEVAB	SIVB2 MODULE TEST SET FUNCTIONAL & CALIBRATION TEST	2G115
V-27013-GSEVAB	IU MODULE TEST SET FUNCTIONAL & CALIBRATION TEST	2G118
V-27014-GSELCC	LCC MEASURING STATION PREPARATION PROC	2G102
V-27015-ML	FUNCTIONAL TEST AND CERTIFICATION OF EQUIPMENT IN ML MEASURING RACKS	
V-27016-ML	GROUND DDAS ANALOG SIGNAL CONDITIONER TST	
V-27020-SIC2	SSB VIBRATION & ACOUSTIC MEASURING SYSTEM VERIF	2S130
V-27021-SIC2	PROPELLANT MEASURING SYSTEM TEST	2S131
V-27022-SIC2	GOX FLOW CONTROL VALVE POSITION MEAS.	2S132
V-27023-SIC2	SEPARATION DISTANCE MEASUREMENT TESTS	2S133
V-27024-SIC2	STRAIN GAGE SYSTEM ZERO REF. & CALIBRATION VERIFICATION	2S134
V-27025-SIC2	PROPELLANT LEVEL & TEMP. ELECT. SENSOR CHECKS	2S135
V-27026-SIC2	FCM VERIFICATION (CANCELLED)	2S136
V-27027-SIC2	DISCRETE SIGNAL MEASUREMENT TESTS	2S137
V-27028-SIC2	STRAIN GAGE BRIDGE RESISTANCE TESTS	2S138
V-27029-SIC2	SIC STAGE MEASURING SYSTEMS VERIFICATION	2S139
V-27039-SIVB2	INSTRUMENTATION READINESS VERIFICATION - LOW BAY	
V-27040-GSELCC	LCC RECORDERS FUNCTIONAL SETUP & VERIFICATION TEST	
V-27041-GSELCC	FIRING ROOM - DDAS METER, RECORDER & DISCRETE VERIFICATION & CALIBRATION	
V-27042-SIVB2	SIGNAL CONDITIONING CALIBRATION	
V-27043-SIVB2	INSTRUMENTATION AUTOMATIC SCAN	
V-27044-SIVB2	MEASUREMENTS COMPONENTS VERIFICATION	
V-27045-SIVB2	LIQUID LEVEL SENSOR CALIBRATION, S-IB	
V-27046-GSE39	ESE MEASUREMENTS COMPONENTS VERIFICATION	
V-27053-GSE39	CAL VERIF - PN CONSOLES MEASUREMENTS	
V-27056-IU502	RF & TM MEASUREMENTS TEST	
V-27057-IU502	VIBRATION MEASUREMENTS TEST	
V-27058-IU502	ACCELERATION MEASUREMENTS TEST	
V-27059-IU502	ACOUSTIC MEASUREMENTS TEST	
V-27060-IU502	POSITION MEASUREMENTS TEST	
V-27061-IU502	TEMPERATURE MEASUREMENTS TEST	
V-27062-IU502	SIGNED MEASUREMENTS TEST	
V-27063-IU502	ANGULAR VELOCITY MEASUREMENTS TEST	
V-27064-IU502	VOLTAGE, CURRENT, & FREQ MEASUREMENTS TEST	
V-27065-IU502	FLOW RATE MEASUREMENTS TEST	
V-27066-IU502	GUIDANCE & CONTROL MEASUREMENTS TEST	

V-27067-IU502	PRESSURE MEASUREMENTS TEST
V-27068-IU502	Q-BALL MEASUREMENTS TEST
V-27069-GSEVAB	S-IC FCM CALIB PANEL FUNCTIONAL TEST
V-27070-GSEVAB	S-IC FCM SIGNAL GENERATOR FUNCTIONAL TEST

LVO TASK - RF & TM SYSTEMS 28000 - 28999

V-28000-GSELCC	ANTENNA TEST	3G102
V-28001-GSELCC	TAPE DEGAUSSER TEST	3G114
V-28002-GSELCC	AUDIO AMPLIFIER TEST	3G115
V-28003-GSELCC	RF SYSTEM TEST	3G108
V-28004-GSELCC	FM DISCRIMINATOR TEST	3G109
V-28005-GSELCC	TAPE RECORDER TEST	3G112
V-28006-GSELCC	SS/FM OPERATIONAL READINESS TEST	3G119
V-28007-GSELCC	PAM/FM/FM OPERATIONAL READINESS TEST	3G122
V-28008-GSELCC	PCM STATION TEST	3G124
V-28009-GSELCC	TCE DAILY READINESS TEST	3G125
V-28011-SIC2	SIC T/M BENCH TEST AND TROUBLE SHOOTING PROCEDURE	3S103
V-28012-SIC2	SIC T/M FM/FM SUBSYSTEMS CHECKOUT	3S105
V-28013-SIC2	SIC T/M RF SUBSYSTEMS CHECKOUT	3S110
V-28014-SIC2	SIC T/M PCM/DDAS SUBSYSTEMS CHECKOUT	3S111
V-28015-SIC2	SIC T/M SS/FM SUBSYSTEMS CHECKOUT	3S115
V-28016-SIC2	SIC T/M SYSTEM CONFIGURATION	3S121
V-28017-ML	GSE ACTIVATION TEST-DIGITAL RANGE SAFETY COMMAND SYSTEM-MOBILE LAUNCHER	
V-28018-GSELCC	GSE ACTIVATION TEST-DIGITAL RANGE SAFETY COMMAND SYSTEM-LCC	
V-28019-GSELCC	GSE FUNCTIONAL TEST-DIGITAL RANGE SAFETY COMMAND SYSTEM (DRSCS)-LCC	
V-28020-GSEVAB	GSE FUNCTIONAL TEST-ODOP-RF CHECKOUT STA	
V-28021-GSEVAB	GSE FUNCTIONAL TEST-TV/ODOP GSE ANTENNA ALIGNMENT CHECKS	
V-28022-GSEVAB	GSE FUNCTIONAL TEST-TV RF CHECKOUT	
V-28023-GSE39	GSE END TO END RF AND AUDIO TRANSMISSION LINE CHECKS (ODOP,TV,DRSCS)	
V-28024-GSE39	DRSCS-RANGE AUDIO LINK FUNCTIONAL TEST	
V-28025-SIC2	TV SYSTEMS SPARES FUNCTIONAL TEST	
V-28026-SIC2	ODOP STAGE SPARES FUNCTIONAL TEST	
V-28027-SIC2	DRSCS-STAGE SPARES FUNCTIONAL TEST	
V-28028-SIC2	ODOP-FUNCTIONAL TEST-VAB	
V-28029-SIC2	DIGITAL RANGE SAFETY COMMAND SYSTEM STAGE FUNCTIONAL TEST-VAB	
V-28030-SIC2	TV-STAGE FUNCTIONAL TEST-VAB	
V-28031-SIC2	DRSCS-CLOSED LOOP STAGE FUNCT TEST-PAD	
V-28032-SIC2	DRSCS-OPEN LOOP RANGE FUNCTIONAL TEST-PAD	
V-28033-SIC2	ODOP-OPEN LOOP FUNCTIONAL TEST-PAD	
V-28034-SIC2	TV-STAGE FUNCTIONAL TEST-PAD	
V-28035-GSEVAB	LOW BAY PCM/DDAS GROUND RECEIVING STATION, SETUP AND CHECKOUT	
V-28036-SIVB2	RANGE SECURE RECEIVER AND ANTENNAT TEST, S-IVB	
V-28037-SIVB2	RANGE SECURE RECEIVER AND DECODER SUBSYSTEM TEST, S-IVB	
V-28038-SIVB2	DDAS SUBSYSTEM TEST, S-IVB	
V-28039-SIVB2	FM/FM SYSTEMS AND TRANSMITTER SYSTEMS	
V-28040-SIVB2	SINGLE SIDEBAND SUBSYSTEM TEST	
V-28041-SIVB2	FLIGHT TAPE RECORDER SUBSYSTEM	
V-28042-SIVB2	SWEEP FREQUENCY CALIBRATOR & FM/FM PREFLIGHT CALIBRATION SIGNAL	

	VERIFICATION	
V-28043-SIVB2	RANGE SECURE SUBSYSTEM CHECKOUT	
V-28046-SII	DIG RN SAFETY COMD (DRSC) SYS ANTENNA VSWR & RF DIST SYS TSTS	DOP-C02-
V-28049-IU	TM RF ASSY POWER OUTPUT, ANTENNA VSWR, FUNCTIONAL VER TST	
V-28050-IU	TM, PCM/DDAS SYS FUNCTIONAL VERIF TST	
V-28051-IU	TM, FM/FM SYS FUNCTIONAL VERIF TST	
V-28052-IU	TM, SS/FM SYS FUNCTIONAL VERIF TST	
V-28053-IU	GSE VERIFICATION TST	
V-28054-IU	C-BAND TRANSPONDER (SST-135C) UNIT TST	
V-28055-IU	C-BAND TRANSPONDER CLOSED LOOP SYS TST	
V-28056-IU	C-BAND TRANSPONDER OPEN LOOP TST	
V-28057-IU	AZUZA SYS TST (CLOSED LOOP)	
V-28058-IU	AZUZA SYS TST (OPEN LOOP)	
V-28059-IU	RF TRAN SYS CALIBRATION	
V-28060-IU	CCS TRAN UNIT TEST	
V-28061-IU	CCS TRAN SYS TEST (CLOSED LOOP)	
V-28062-IU	CMD COMM SYS (CCS) COMPLETE SYS TST - OPEN LOOP	
V-28063-IU	CMD COMM SYS (CCS) TRANSPONDER SYS TST - OPEN LOOP	
V-28064-IU	IU CMD DECODER SYS TST - CLOSED LOOP	
V-28065-IU	IU CMD DECODER UNIT TST	
V-28066-ML	S-IVB ML ANTENNA SYS C/O	
V-28067-SIC2	DRSCS - ANT SUBSYS CHECK - S-IC STAGE	
V-28069-GSEVAB	IU R.F. SYSTEMS SUPPORT	
V-28070-ML	S-IC TM, ML GSE READINESS TEST	
V-28044-SII2	DIGITAL RANGE SAFETY COMMAND (DSRC) SYSTEMS TESTS -CLOSED LOOP	
V-28047-SII	DIGITAL RANGE SAFETY COMMAND (DRSC) RECEIVER AND DECODER SPARES CHECKOUT	
V-28048-SII2	DIGITAL RANGE SAFETY COMMAND (DRSC) SYSTEMS TESTS - CLOSED LOOP AT PAD	

LVO TASK - ORDNANCE 29000 - 29999

V-29027-SII2	ELECT CHECKOUT PROC FOR PROP DISP AND SEPARATION SYST DETONATORS
V-29029-SII2	S-II SEPARATION SYS AUTOMATIC CHECKOUT PROC
V-29030-SII2	S-II PROP DISPERSION SYS FUNCTIONAL CHECKOUT PROC (AUTOMATIC MODE)

LVO SUB TASK - UNASSIGNED 30000 - 30999

LVO SUB TASK - GROUND & VEHICLE ELECTRICAL NETWORKS & EDS
31000 - 31999

LVO SUB TASK - OPERATIONAL GROUND COMPUTER 32000 - 32999

V-32000-GSE39	SAT V GND COMPUTER - SYS POWER UP PROC
V-32001-GSE39	SAT V GND COMPUTER PREVENT MAINT PROC
V-32002-GSE39	SAT V GND COMPUTER - ANALOG SYS CALIB
V-32003-GSE39	SAT V GND COMPUTER - MAGNETIC DRUM ANALOG CIR C/O
V-32004-GSE39	SAT V GND COMPUTER - MAGNETIC TAPE STA ANALOG CIR C/O
V-32005-GSE39	SAT V GND COMPUTER - HIGH SPEED MEMORY C/O
V-32006-GSE39	SAT V GND COMPUTER - MECH INSP PROC
V-32007-GSE39	SAT V GND COMPUTER - INTERFACE POWER SUPPLY C/O
V-32008-GSE39	SAT V GND COMPUTER - SIGNAL/CHASSIS GROUNDING ISOL CHECK
V-32009-GSE39	SAT V GND COMPUTER - DATA PATCH 24 - BIT DISCRETE ACT INDICATOR C/O PROC
V-32010-GSE39	SAT V GND COMPUTER - ANALOG C/O PROC
V-32011-GSE39	SAT V GND COMPUTER - DISCRETE IN/DISCRETE OUT C/O
V-32012-GSE39	SAT V GND COMPUTER - INPUT/OUTPUT REGIS & AIRBORNE COMP INPUT & OUTPUT REG C/O PROC
V-32013-GSE39	SAT V GND COMPUTER - DATA PATCH AIRBORNE COMP INTERFACE C/O PROC

LVO SUB TASK - GYRO, GUIDANCE & CONTROL SYSTEM - 33,000 - 33,999

V-33010-1U502	SIMULATED FLIGHT TST
V-33011-1U502	LNCH CNTDWN PART I; GYRO DRIFT & ACC CAL TST; ST-124M STAB PLAT SYS OPNS
V-33012-1U502	LNCH CNTDWN PWR TRANS TST; ST-124M STAB PLAT SYS OPNS
V-33013-1U502	COMBINED G & C SYS TST; ST-124M STAB PLAT SYS OPNS
V-33014-1U502	S-IVB COAST OVERALL STEERING TST PROGRAM
V-33015-1U502	S-IC OVERALL STEERING TST
V-33016-1U502	S-II OVERALL STEERING TST
V-33017-1U502	ALL SYS OA TST PLUGS IN: ST-124M STAB PLAT SYS OPNS
V-33018-1U502	ALL SYS OA TST PLUGS OUT: ST-124M STAB PLAT SYS OPNS
V-33019-1U502	FRT: ST-124M STAB PLAT SYS OPNS
V-33020-1U502	LNCH CNTDWN: ST-124M STAB PLAT SYS OPNS

LVO SUB TASK - PROPULSION & VEHICLE MECHANICAL 34000 - 34999

LVO SUB TASK - PROPELLANT SYSTEMS 35000 - 35999
V-35000-SIC2 RP-1 SYS-PREP FOR VEHICLE LOADING &
REPLENISH OPNS

LVO SUB TASK - MECHANICAL GSE SYSTEMS 36000 - 36999

29A

LVO SUB TASK - MEASURING SYSTEMS 37000 - 37999

LVO SUB TASK - RF & TM SYSTEMS 38000 - 38999

LVO SUB TASK - ORDNANCE 39000 - 39999

SVO TASK - LAUNCH & CDDT PROCEDURES 40000 - 40999

V-40300-502	SPACE VEHICLE LAUNCH COUNTDOWN
V-40310-502	SPACE VEHICLE COUNTDOWN DEMONSTRATION

SVO TASK - OVERALL TEST PROCEDURES 41000 - 41999

V-41300-502	SPACE VEHICLE OVERALL TEST (PLUGS IN)
V-41301-502	SPACE VEHICLE OVERALL TEST (PLUGS OUT)
V-41302-502	SPACE VEHICLE SWING ARM OVERALL TEST
V-41303-502	EMERGENCY DETECTION SYSTEM
V-41304-502	SPACE VEHICLE CUTOFF AND MALFUNCTION TESTS
V-41306-502	SIMULATED FLIGHT TEST
V-41307-502	FLIGHT READINESS TEST

SVO TASK - RF COMPATABILITY TEST 42000 - 42999

V-42300-502	SPACE VEHICLE RF COMPATABILITY (WITH MSS)
V-42301-502	SPACE VEHICLE RF COMPATABILITY (WITH OAT MSS)

SVO TASK - ELECTRICAL MATE PROCEDURES 43000 - 43999

V-43300-502	SPACE VEHICLE ELECTRICAL MATE
V-43301-502	SPACE VEHICLE FLIGHT ELECTRICAL MATE
V-43302-502	ELECT MATE TST ESE/GSE

SVO TASK - MECHANICAL MATE PROCEDURES 44000 - 44999

KSC OPERATIONS
APOLLO/SATURN TEST CATALOG

1. TEST TITLE

DETAILED OPERATING PROCEDURE
ELECTRICAL - MECHANICAL CHECK
GSE AND STAGE

2. KSC TEST NO.
V-20004-SII2

3. STAGE, VEHICLE OR GSE
S-II-2 Pad

4. TEST OBJECTIVES

Verify that actuation of S-II-2 related GSE and Stage mechanical components and control from the Launch Control Center respective consoles can be accomplished and proper feedback indications are obtained after the S-V Vehicle is transferred to Pad "A" and control cables have been connected and validated.

5. TEST DESCRIPTION/EQUIPMENT STATUS

1. LCC Ground Pneumatics Panel/GSE Test "with" 150 GN Control Press: Use the LCC panel to actuate components and receive responses from the S7-41 and A7-71 consoles.
2. LCC Pressurization Panel/GSE/Stage Test "without" 750 HE Control Pressure: Use the LCC panel to actuate components and receive responses from the stage and S7-41.
3. LCC Recirculation Panel/GSE/Stage Test "without" 750 HE Control Pressure: Use the LCC panel to actuate components and receive responses from the stage and S7-41.
4. LCC Engine Panels/GSE/Stage Test "without" 750 HE control Pressure: Use the LCC panels to actuate components and receive responses from the stage and S7-41.
5. LCC Camera Pneumatics Panel/Stage Test "without" 750 HE Control Pressure: Use the LCC panel to actuate components and receive responses from the stage.
6. LCC Pressurization Panel/GSE/Stage Test "with" 750 HE Control Pressure: Use the LCC panel to activate the 750 HE Control pressure circuits, actuate components and receive responses from the stage and S7-41.
7. LCC Recirculation Panel/GSE/Stage Test "with" 750 HE Control Pressure: Use the LCC panel to actuate components and receive responses from the stage and S7-41.
8. LCC Engine Panels/GSE/Stage Test "with" 750 HE Control Pressure: Use the LCC panels to actuate components and receive responses from the stage and S7-41.
9. LCC Propellant Monitor Panel/GSE/Stage Test "with" 750 HE Control Pressure: Use the LCC Panel to actuate components and receive responses from the stage and S7-41.
10. LCC Hydraulics Panel/Stage Test: Use the LCC panel to actuate components and receive responses from the stage.

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

6. PREPARED BY	8. NASA-KSC APPROVAL	10. APPROVAL DATE
G.V. Alevizon G.V. Alevizon	Ralph S. Lotspeich	June 20, 1966
7. ORGANIZATION	**9. ORGANIZATION**	**11. VEHICLE EFFECTIVITY**
NAA S&ID R A Burg Mechanical & Propulsion	LVO-332 Group	AS-502 DOP-C02-M005

APOLLO SATURN TEST CATALOG (Continuation Sheet)	PAGE 2 OF 3
1. TEST TITLE DETAILED OPERATING PROCEDURE ELECTRICAL-MECHANICAL CHECK GSE AND STAGE	2. KSC TEST NO. V-20004-S112 11. VEHICLE EFFECTIVITY AS 502

12. AREA OF TEST PERFORMED	13. COMPUTER/ACE PROG. IDENT. (IF APPLICABLE)	14. EST. TEST TIME
PAD A	N/A	4 Hrs.

15. TEST CONFIGURATION

S-II in LAU. VEH. Stack & L/V Electrical Systems Test Complete

16. SUPPORT REQUIREMENTS CHECKLIST *(Check appropriate boxes and add any additional)*

[X] GROUND POWER	[X] LCC MEASURING (LVO)	[ ] ETR/KSC RADAR
[ ] S-IB OR S-IC STAGE PWR	[X] LCC MEASURING (INS)	[ ] ETR COMMAND XMITTER
[X] S-II STAGE POWER	[X] GSE MEASURING (LVO)	[ ] LOCAL COMMAND (C.L.)
[ ] S-IVB STAGE POWER	[X] GSE MEASURING (INS)	[ ] ALDS
[ ] IU POWER	[X] LCC DATA DISPLAY	[ ] LCC TM STA. (MONITOR)
[ ] LEM POWER	[ ] CIF DATA DISPLAY	[ ] LCC TM RECORDING
[ ] SM POWER	[X] DDAS	[ ] CIF TM STA. (MONITOR)
[ ] CM POWER	[ ] DDAS TAPE RECORDING	[ ] CIF TM RECORDING
[ ] BACK-UP BATTERIES	[ ] SERVICE STRUCTURE MEAS.	[ ] CIF COMPUTER
[ ] TIMING	[X] RCA-110A COMPUTERS	[ ] CIF DATA
[ ] COUNTDOWN CLOCK	[ ] ACF	[ ] TM RECORDS
[ ] ETR SEQUENCER	[ ] L/V W-G ECS	[ ] REAL-TIME CIF COMPUT.
[ ] ETR COUNTDOWN CLOCK	[ ] CM W-G ECS	[ ] POST-TEST CIF COMPUT.
[ ] ETR S.R.O.	[X] FACILITY ECS (GAS)	[ ] KSC TRACKING
[ ] ETR R.S.O.	[X] H.P. GAS	[ ] RFI MONITORING
[ ] ETR PAD SAFETY	[ ] CCF	[ ] RF READOUTS (ETR)
[X] KSC PAD SAFETY	[ ] FACILITY TV (OTV)	[ ] RF READOUTS (KSC)
[ ] SECURITY POLICE	[X] FACILITY COMM. (OIS)	[ ] WEATHER FORECAST
[ ] FIRE FIGHTING	[ ] FILM CAMERAS	[ ] MCC-C
[ ] MEDICAL	[ ] SEARCH LIGHTS	[ ] MCC-H
[ ]	[ ]	[ ] FOOD SERVICE
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

OTHERS:

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

17. OTHER APPLICABLE REFERENCE DOCUMENTATION

1. TEST TITLE
DETAILED OPERATING PROCEDURE
ELECTRICAL - MECHANICAL CHECK
GSE AND STAGE

2. KSC TEST NO.
V-20004-SII2

11. VEHICLE EFFECTIVITY
AS-502

CONTINUED

Equipment Status

A. Lut transfer and Pad hook-up completed.
B. L/V Electrical Systems Test complete.
C. LCC Firing Room, Ground DDAS, DEE, Stage DDAS, Facilities GN and HE required.
D. Stage Electrical and Instrumentation systems required.

KSC OPERATIONS
APOLLO/SATURN TEST CATALOG

1. TEST TITLE

Launch Vehicle Power Transfer Test

2. KSC TEST NO.

V-20005-SA 502

3. STAGE, VEHICLE OR GSE

AS-502 LV

4. TEST OBJECTIVES

The objective is to verify individual stage transfer and Launch Vehicle sequence power transfer.

5. TEST DESCRIPTION/EQUIPMENT STATUS

The test will be in two parts, the first part using battery bypass system and the second part using OAT batteries.

The first part will be as follows:

After achieving ready for power transfer, the S-1C, S-II, S-IVB and the IU will be transferred to internal power by manual commands from the networks panels. After verification of normal operation the S-1C, S-II, S-IVB and the IU will be transferred back to external power. All Stages will then be transferred simultaneously to internal power by simulating sequence power transfer command. After verification of normal operation, all Stages will be transferred back to external power using S-1C cutoff button.

The second part will be the same as the first except a third section will be added. The Stages will transfer external using the emergency external switch on each network panel.

The status of the test is as follows. The Launch Vehicle is erected on the ML and all Stages are mechanically mated. The ML is positioned in the VAB. G and C systems will be disconnected. Current and voltage will be recorded. There will be no open loop RF radiation.

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

6. PREPARED BY	8. NASA-KSC APPROVAL	10. APPROVAL DATE
M. S. Altman	W O Chandler Jr	3 Aug 66
7. ORGANIZATION	9. ORGANIZATION	11. VEHICLE EFFECTIVITY
BOEING 5-8512	JB	AS-502 LV

APOLLO/SATURN TEST CATALOG (Continuation Sheet)	PAGE 2 OF 2
1. TEST TITLE Launch Vehicle Power Transfer Test	2. KSC TEST NO. V-20005-SA 502 11. VEHICLE EFFECTIVITY AS-502 LV

12. WHERE TEST PERFORMED	13. COMPUTER/ACE PROG. IDENT. (IF APPLICABLE)	14. EST. TEST TIME
VAB		

15. TEST CONFIGURATION

16. SUPPORT REQUIREMENTS CHECKLIST *(Check appropriate boxes and add any additional)*

[X] GROUND POWER	[X] LCC MEASURING (LVO)	[ ] ETR/KSC RADAR
[X] S-IB OR S-IC STAGE PWR	[ ] LCC MEASURING (INS)	[ ] ETR COMMAND XMITTER
[X] S-II STAGE POWER	[X] GSE MEASURING (LVO)	[ ] LOCAL COMMAND (C.L.)
[X] S-IVB STAGE POWER	[ ] GSE MEASURING (INS)	[ ] ALDS
[X] IU POWER	[X] LCC DATA DISPLAY	[X] LCC TM STA. (MONITOR)
[ ] LEM POWER	[ ] CIF DATA DISPLAY	[X] LCC TM RECORDING
[ ] SM POWER	[X] DDAS	[ ] CIF TM STA. (MONITOR)
[ ] CM POWER	[X] DDAS TAPE RECORDING	[ ] CIF TM RECORDING
[X] BACK-UP BATTERIES	[ ] SERVICE STRUCTURE MEAS.	[ ] CIF COMPUTER
[X] TIMING	[X] RCA-110A COMPUTERS	[ ] CIF DATA
[ ] COUNTDOWN CLOCK	[ ] ACE	[ ] TM RECORDS
[ ] ETR SEQUENCER	[X] L/V W-G ECS	[ ] REAL-TIME CIF COMPUT.
[ ] ETR COUNTDOWN CLOCK	[ ] CM W-G ECS	[ ] POST-TEST CIF COMPUT.
[ ] ETR S.R.O.	[ ] FACILITY ECS (GAS)	[ ] KSC TRACKING
[X] ETR R.S.O.	[ ] H.P. GAS	[ ] RFI MONITORING
[ ] ETR PAD SAFETY	[ ] CCF	[ ] RF READOUTS (ETR)
[ ] KSC PAD SAFETY	[ ] FACILITY TV (OTV)	[X] RF READOUTS (KSC)
[ ] SECURITY POLICE	[X] FACILITY COMM. (OIS)	[ ] WEATHER FORECAST
[ ] FIRE FIGHTING	[ ] FILM CAMERAS	[ ] MCC-C
[ ] MEDICAL	[ ] SEARCH LIGHTS	[ ] MCC-H
[X] OAT Equipment	[ ]	[ ] FOOD SERVICE
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

OTHERS:

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

17. OTHER APPLICABLE REFERENCE DOCUMENTATION

KSC OPERATIONS
APOLLO/SATURN TEST CATALOG

1. TEST TITLE

Launch Vehicle Switch Selector

2. KSC TEST NO.

V-20006-SA 502

3. STAGE, VEHICLE OR GSE

AS-502 LV

4. TEST OBJECTIVES

The objective of this test is to verify proper operation of the Launch Vehicle Switch Selectors.

5. TEST DESCRIPTION/EQUIPMENT STATUS

The Launch Vehicle is erected on the ML and all Stages are mechanically and electrically mated. The ML is positioned in the VAB. A malfunction box will be installed in the switch selector output cabling of each stage to preset Stage logic switching. An isolation box will be installed between the LVDA and the IU switch selector to test the capability of the computer to issue a complement function.

A manual interface test will be run to verify the interface between the IU switch selector panel and the Launch Vehicle switch selectors. This test will consist of five parts - floating one's, all one's, inhibit, malfunction, and dual select.

An automated test will be performed to verify the interface between the ground computer and the switch selectors using floating one's and all one's.

A second automated test will be performed in which each switch selector will be individually selected and all outputs commanded to read. Malfunctions will be introduced to test for proper response in the ESE.

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

6. PREPARED BY	8. NASA-KSC APPROVAL	10. APPROVAL DATE
Paul F. Stokes	W O Chandler Jr	3 Aug 66
7. ORGANIZATION	9. ORGANIZATION	11. VEHICLE EFFECTIVITY
BOEING 5-8512	JB	AS- 502 LV

APOLLO/SATURN TEST CATALOG (Continuation Sheet)	PAGE 2 OF 2

1. TEST TITLE	2. KSC TEST NO.
Launch Vehicle Switch Selector	V-20006-SA 502
	11. VEHICLE EFFECTIVITY AS - 502 LV

12. WHERE TEST PERFORMED	13. COMPUTER/ACE PROG. IDENT. (IF APPLICABLE)	14. EST. TEST TIME
VAB		

15. TEST CONFIGURATION The Launch Vehicle is erected on the ML and all Stages are mechanically and electrically mated.

16. SUPPORT REQUIREMENTS CHECKLIST *(Check appropriate boxes and add any additional)*

[X] GROUND POWER	[ ] LCC MEASURING (LVO)	[ ] ETR/KSC RADAR
[X] S-IB OR S-IC STAGE PWR	[ ] LCC MEASURING (INS)	[ ] ETR COMMAND XMITTER
[X] S-II STAGE POWER	[ ] GSE MEASURING (LVO)	[ ] LOCAL COMMAND (C.L.)
[X] S-IVB STAGE POWER	[ ] GSE MEASURING (INS)	[ ] ALDS
[X] IU POWER	[ ] LCC DATA DISPLAY	[ ] LCC TM STA. (MONITOR)
[ ] LEM POWER	[ ] CIF DATA DISPLAY	[ ] LCC TM RECORDING
[ ] SM POWER	[X] DDAS	[ ] CIF TM STA. (MONITOR)
[ ] CM POWER	[ ] DDAS TAPE RECORDING	[ ] CIF TM RECORDING
[ ] BACK-UP BATTERIES	[ ] SERVICE STRUCTURE MEAS.	[ ] CIF COMPUTER
[ ] TIMING	[X] RCA-110A COMPUTERS	[ ] CIF DATA
[ ] COUNTDOWN CLOCK	[ ] ACE	[ ] TM RECORDS
[ ] ETR SEQUENCER	[ ] L/V W-G ECS	[ ] REAL-TIME CIF COMPUT.
[ ] ETR COUNTDOWN CLOCK	[ ] CM W-G ECS	[ ] POST-TEST CIF COMPUT.
[ ] ETR S.R.O.	[ ] FACILITY ECS (GAS)	[ ] KSC TRACKING
[ ] ETR R.S.O.	[ ] H.P. GAS	[ ] RFI MONITORING
[ ] ETR PAD SAFETY	[ ] CCF	[ ] RF READOUTS (ETR)
[ ] KSC PAD SAFETY	[ ] FACILITY TV (OTV)	[ ] RF READOUTS (KSC)
[ ] SECURITY POLICE	[ ] FACILITY COMM. (OIS)	[ ] WEATHER FORECAST
[ ] FIRE FIGHTING	[ ] FILM CAMERAS	[ ] MCC-C
[ ] MEDICAL	[ ] SEARCH LIGHTS	[ ] MCC-H
[ ]	[ ]	[ ] FOOD SERVICE
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

OTHERS:

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

17. OTHER APPLICABLE REFERENCE DOCUMENTATION

KSC OPERATIONS
APOLLO/SATURN TEST CATALOG

1. TEST TITLE

Launch Vehicle Flight Sequence and EBW Functional Test

2. KSC TEST NO.

V-20007-SA 502

3. STAGE, VEHICLE OR GSE

AS-502 LV

4. TEST OBJECTIVES

The objectives of this test are: To verify proper Launch Vehicle sequencing, to verify liftoff interlocks, and verify proper operation of the vehicle and ESE EBW ordnance systems.

5. TEST DESCRIPTION/EQUIPMENT STATUS

Selected outputs from the switch selectors will be initiated. The various vehicle functions performed by these outputs will be monitored. In this part, simulated liftoff will not be given, and the liftoff interlocks will be verified.

In the second part, simulated liftoff will be given and switch selector outputs will be initiated in flight sequence. Vehicle sequencing will be monitored.

In the third part, the LVDC will drive the switch selectors through a complete flight sequence after simulated liftoff has been given.

The Launch Vehicle will be erected on the ML and all Stages mechanically and electrically mated. The ML will be positioned in the VAB. Overall test equipment will be utilized. All launch vehicle ordnance circuits will be "end item" checked with simulators.

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

6. PREPARED BY	8. NASA-KSC APPROVAL	10. APPROVAL DATE
L. Kent Irwin	W O Chandler Jr	3 Aug 66
7. ORGANIZATION	9. ORGANIZATION	11. VEHICLE EFFECTIVITY
BOEING 5-8512	JB	AS-502 LV

APOLLO/SATURN TEST CATALOG (Continuation Sheet)	PAGE 2 OF 2

1. TEST TITLE	2. KSC TEST NO.
Launch Vehicle Flight Sequence and EBW Functional Test	V-20007-SA 502
	11. VEHICLE EFFECTIVITY AS- 502 LV

12. WHERE TEST PERFORMED	13. COMPUTER/ACE PROG. IDENT. (IF APPLICABLE)	14. EST. TEST TIME
VAB		

15. TEST CONFIGURATION The Launch Vehicle will be erected on the ML and all Stages mechanically and electrically mated.

16. SUPPORT REQUIREMENTS CHECKLIST *(Check appropriate boxes and add any additional)*

[X] GROUND POWER	[X] LCC MEASURING (LVO)	[ ] ETR/KSC RADAR
[X] S-IB OR S-IC STAGE PWR	[X] LCC MEASURING (INS)	[ ] ETR COMMAND XMITTER
[X] S-II STAGE POWER	[X] GSE MEASURING (LVO)	[ ] LOCAL COMMAND (C.L.)
[X] S-IVB STAGE POWER	[X] GSE MEASURING (INS)	[ ] ALDS
[X] IU POWER	[X] LCC DATA DISPLAY	[ ] LCC TM STA. (MONITOR)
[ ] LEM POWER	[ ] CIF DATA DISPLAY	[ ] LCC TM RECORDING
[ ] SM POWER	[X] DDAS	[ ] CIF TM STA. (MONITOR)
[ ] CM POWER	[X] DDAS TAPE RECORDING	[ ] CIF TM RECORDING
[X] BACK-UP BATTERIES	[ ] SERVICE STRUCTURE MEAS.	[X] CIF COMPUTER
[X] TIMING	[X] RCA-110A COMPUTERS	[X] CIF DATA
[X] COUNTDOWN CLOCK	[ ] ACE	[ ] TM RECORDS
[ ] ETR SEQUENCER	[ ] L/V W-G ECS	[X] REAL-TIME CIF COMPUT.
[ ] ETR COUNTDOWN CLOCK	[ ] CM W-G ECS	[ ] POST-TEST CIF COMPUT.
[ ] ETR S.R.O.	[ ] FACILITY ECS (GAS)	[ ] KSC TRACKING
[ ] ETR R.S.O.	[ ] H.P. GAS	[ ] RFI MONITORING
[ ] ETR PAD SAFETY	[ ] CCF	[ ] RF READOUTS (ETR)
[ ] KSC PAD SAFETY	[ ] FACILITY TV (OTV)	[ ] RF READOUTS (KSC)
[ ] SECURITY POLICE	[ ] FACILITY COMM. (OIS)	[ ] WEATHER FORECAST
[ ] FIRE FIGHTING	[ ] FILM CAMERAS	[ ] MCC-C
[ ] MEDICAL	[ ] SEARCH LIGHTS	[ ] MCC-H
[ ]	[ ]	[ ] FOOD SERVICE
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

OTHERS:

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

17. OTHER APPLICABLE REFERENCE DOCUMENTATION

KSC OPERATIONS
APOLLO/SATURN TEST CATALOG

1. TEST TITLE

Launch Vehicle Propellant Dispersion Systems Test

2. KSC TEST NO.
V-20008-SA 502

3. STAGE, VEHICLE OR GSE
AS-502 LV

4. TEST OBJECTIVES

The objectives of this test are to verify the safety and proper operation of the S-1C, S-II, and S-IVB Range Safety Command Receivers and Propellant Dispersion Systems, and to verify the ESE control and monitor circuitry.

5. TEST DESCRIPTION/EQUIPMENT STATUS

For this test the vehicle will be erected in the VAB and all stages will be electrically and mechanically mated. Ordnance circuits will be checked using pulse sensors, and engine cutoff and propellant dispersion will be simulated for the launch vehicle.

The test will be divided into several parts, the purpose of which will be to check the range safety command receivers, the EBW firing units, and the S & A control and monitor circuitry in its various modes and possibilities of operation.

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

6. PREPARED BY	8. NASA-KSC APPROVAL	10. APPROVAL DATE
Ivan Valdes	CER DAK WO Chandler Jr	3 Aug 66
7. ORGANIZATION	9. ORGANIZATION	11. VEHICLE EFFECTIVITY
BOEING 5-8512	JB	AS-502 LV

APOLLO/SATURN TEST CATALOG (Continuation Sheet)	PAGE 2 OF 2

1. TEST TITLE

Launch Vehicle Propellant Dispersion Systems Test

2. KSC TEST NO.

V-20008-SA 502

11. VEHICLE EFFECTIVITY

AS-502 LV

12. WHERE TEST PERFORMED	13. COMPUTER/ACE PROG. IDENT. (IF APPLICABLE)	14. EST. TEST TIME

15. TEST CONFIGURATION

16. SUPPORT REQUIREMENTS CHECKLIST *(Check appropriate boxes and add any additional)*

[X] GROUND POWER	[X] LCC MEASURING (LVO)	[ ] ETR/KSC RADAR
[X] S-IB OR S-IC STAGE PWR	[ ] LCC MEASURING (INS)	[X] ETR COMMAND XMITTER
[X] S-II STAGE POWER	[X] GSE MEASURING (LVO)	[ ] LOCAL COMMAND (C.L.)
[X] S-IVB STAGE POWER	[ ] GSE MEASURING (INS)	[ ] ALDS
[X] IU POWER	[ ] LCC DATA DISPLAY	[X] LCC TM STA. (MONITOR)
[ ] LEM POWER	[ ] CIF DATA DISPLAY	[ ] LCC TM RECORDING
[ ] SM POWER	[X] DDAS	[X] CIF TM STA. (MONITOR)
[ ] CM POWER	[X] DDAS TAPE RECORDING	[ ] CIF TM RECORDING
[X] BACK-UP BATTERIES	[ ] SERVICE STRUCTURE MEAS.	[ ] CIF COMPUTER
[ ] TIMING	[X] RCA-110A COMPUTERS	[ ] CIF DATA
[ ] COUNTDOWN CLOCK	[ ] ACE	[ ] TM RECORDS
[ ] ETR SEQUENCER	[ ] L/V W-G ECS	[ ] REAL-TIME CIF COMPUT.
[ ] ETR COUNTDOWN CLOCK	[ ] CM W-G ECS	[ ] POST-TEST CIF COMPUT.
[X] ETR S.R.O.	[ ] FACILITY ECS (GAS)	[ ] KSC TRACKING
[ ] ETR R.S.O.	[ ] H.P. GAS	[ ] RFI MONITORING
[ ] ETR PAD SAFETY	[ ] CCF	[ ] RF READOUTS (ETR)
[X] KSC PAD SAFETY	[ ] FACILITY TV (OTV)	[X] RF READOUTS (KSC)
[ ] SECURITY POLICE	[ ] FACILITY COMM. (OIS)	[ ] WEATHER FORECAST
[ ] FIRE FIGHTING	[ ] FILM CAMERAS	[ ] MCC-C
[ ] MEDICAL	[ ] SEARCH LIGHTS	[ ] MCC-H
[ ]	[ ]	[ ] FOOD SERVICE
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

OTHERS:

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

17. OTHER APPLICABLE REFERENCE DOCUMENTATION

KSC OPERATIONS
APOLLO/SATURN TEST CATALOG

1. TEST TITLE

Launch Vehicle Electrical Interface Mate Test

2. KSC TEST NO.

V-20009-SA 502

3. STAGE, VEHICLE OR GSE

AS-502 LV

4. TEST OBJECTIVES

The objective of this test is to electrically mate the Launch Vehicle interstage interfaces.

5. TEST DESCRIPTION/EQUIPMENT STATUS

Resistance measurements will be made between each pin of the interface connectors and ground. Voltage will be applied to pins in selected connectors and will be monitored at various points in other Stages. Ground power will be applied to all Stages of the Launch Vehicle.

The Launch Vehicle interstage interfaces will remain mated through the fuse boxes and the separation simulators until after the Space Vehicle OAT #2 (Plugs Out).

The test will start with all Stages of the Launch Vehicle mechanically mated on the ML, and will effect electrical mate of the interstage interfaces through fuse boxes and separation simulators.

The ML is positioned in the VAB.

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

6. PREPARED BY	8. NASA-KSC APPROVAL	10. APPROVAL DATE
Felix Odle	DAR W O Chandler Jr	3 Aug 66
7. ORGANIZATION	**9. ORGANIZATION**	**11. VEHICLE EFFECTIVITY**
BOEING 5-8512	JB	AS- 502 LV

APOLLO/SATURN TEST CATALOG (Continuation Sheet)	PAGE 2 OF 2
1. TEST TITLE Launch Vehicle Electrical Interface Mate Test	2. KSC TEST NO. V-20009-SA 502 11. VEHICLE EFFECTIVITY AS-502 LV

12. WHERE TEST PERFORMED	13. COMPUTER/ACE PROG. IDENT. (IF APPLICABLE)	14. EST. TEST TIME
VAB		

15. TEST CONFIGURATION

16. SUPPORT REQUIREMENTS CHECKLIST *(Check appropriate boxes and add any additional)*

☐ GROUND POWER	☐ LCC MEASURING (LVO)	☐ ETR/KSC RADAR
☒ S-IB OR S-IC STAGE PWR	☐ LCC MEASURING (INS)	☐ ETR COMMAND XMITTER
☒ S-II STAGE POWER	☐ GSE MEASURING (LVO)	☐ LOCAL COMMAND (C.L.)
☒ S-IVB STAGE POWER	☐ GSE MEASURING (INS)	☐ ALDS
☒ IU POWER	☐ LCC DATA DISPLAY	☐ LCC TM STA. (MONITOR)
☐ LEM POWER	☐ CIF DATA DISPLAY	☐ LCC TM RECORDING
☐ SM POWER	☐ DDAS	☐ CIF TM STA. (MONITOR)
☐ CM POWER	☐ DDAS TAPE RECORDING	☐ CIF TM RECORDING
☐ BACK-UP BATTERIES	☐ SERVICE STRUCTURE MEAS.	☐ CIF COMPUTER
☐ TIMING	☐ RCA-110A COMPUTERS	☐ CIF DATA
☐ COUNTDOWN CLOCK	☐ ACE	☐ TM RECORDS
☐ ETR SEQUENCER	☐ L/V W-G ECS	☐ REAL-TIME CIF COMPUT.
☐ ETR COUNTDOWN CLOCK	☐ CM W-G ECS	☐ POST-TEST CIF COMPUT.
☐ ETR S.R.O.	☐ FACILITY ECS (GAS)	☐ KSC TRACKING
☐ ETR R.S.O.	☐ H.P. GAS	☐ RFI MONITORING
☐ ETR PAD SAFETY	☐ CCF	☐ RF READOUTS (ETR)
☐ KSC PAD SAFETY	☐ FACILITY TV (OTV)	☐ RF READOUTS (KSC)
☐ SECURITY POLICE	☐ FACILITY COMM. (OIS)	☐ WEATHER FORECAST
☐ FIRE FIGHTING	☐ FILM CAMERAS	☐ MCC-C
☐ MEDICAL	☐ SEARCH LIGHTS	☐ MCC-H
☒ PORTABLE MEASURING EQ.	☐	☐ FOOD SERVICE
☐	☐	☐
☐	☐	☐
☐	☐	☐
☐	☐	☐

OTHERS:

(CONTINUE ON KSC FORM 23-192 IF REQUIRED)

17. OTHER APPLICABLE REFERENCE DOCUMENTATION

50