

MISSION STATUS BULLETIN

VOYAGER

August 16, 1977



No. 2

CURRENT STATUS

VGR77-3 (Voyager 2)

All project elements participated in the practice countdown and operational readiness test on August 15 in preparation for the August 20 launch of VGR77-3. The pre-countdown tests August 13 and 14 included readouts of the memories of the spacecraft's three on-board, reprogrammable digital computer systems, the Command Control Subsystem (CCS), Attitude and Articulation Control Subsystem (AACS), and Flight Data Subsystem (FDS).

The VGR77-3 spacecraft was encapsulated August 9, but was removed from the shroud when the post-encapsulation electrical tests detected a need to electrically ground the low energy charged particle (LECP) instrument. The LECP was changed and the spacecraft reencapsulated August 10. Post-encapsulation electrical tests were satisfactory, and VGR77-3 has been moved to launch complex 41 and mated to the Titan/Centaur TC-7 launch vehicle in readiness for launch August 20.

The decision to switch the flight spacecraft necessitated switching of the radioisotope thermoelectric generators (RTGs) as well. Since the first launch trajectory includes the option to extend the mission to Uranus, a distance of 19 astronomical units (AUs) from the sun, the higher power output RTGs previously installed on VGR77-2 were removed and reinstalled on VGR77-3.

VGR77-2 (Voyager 1)

VGR77-2 is scheduled to be launched as soon as ten days after the first launch, but will be available by August 18 to support the first launch if necessary.

An intermittent hardware condition associated with the clock function was detected in the VGR77-2 AACS telemetry. Because of this problem, the AACS proof test model (PTM) was installed to fly on VGR77-2. The FDS computer has been

reinstalled on VGR77-2 following troubleshooting, repair, and retest of an intermittent hardware condition affecting the checksum routine.

Pyro checks were completed August 13 and the pre-countdown test will be conducted August 16. RTG installation and spacecraft encapsulation is scheduled for August 17.

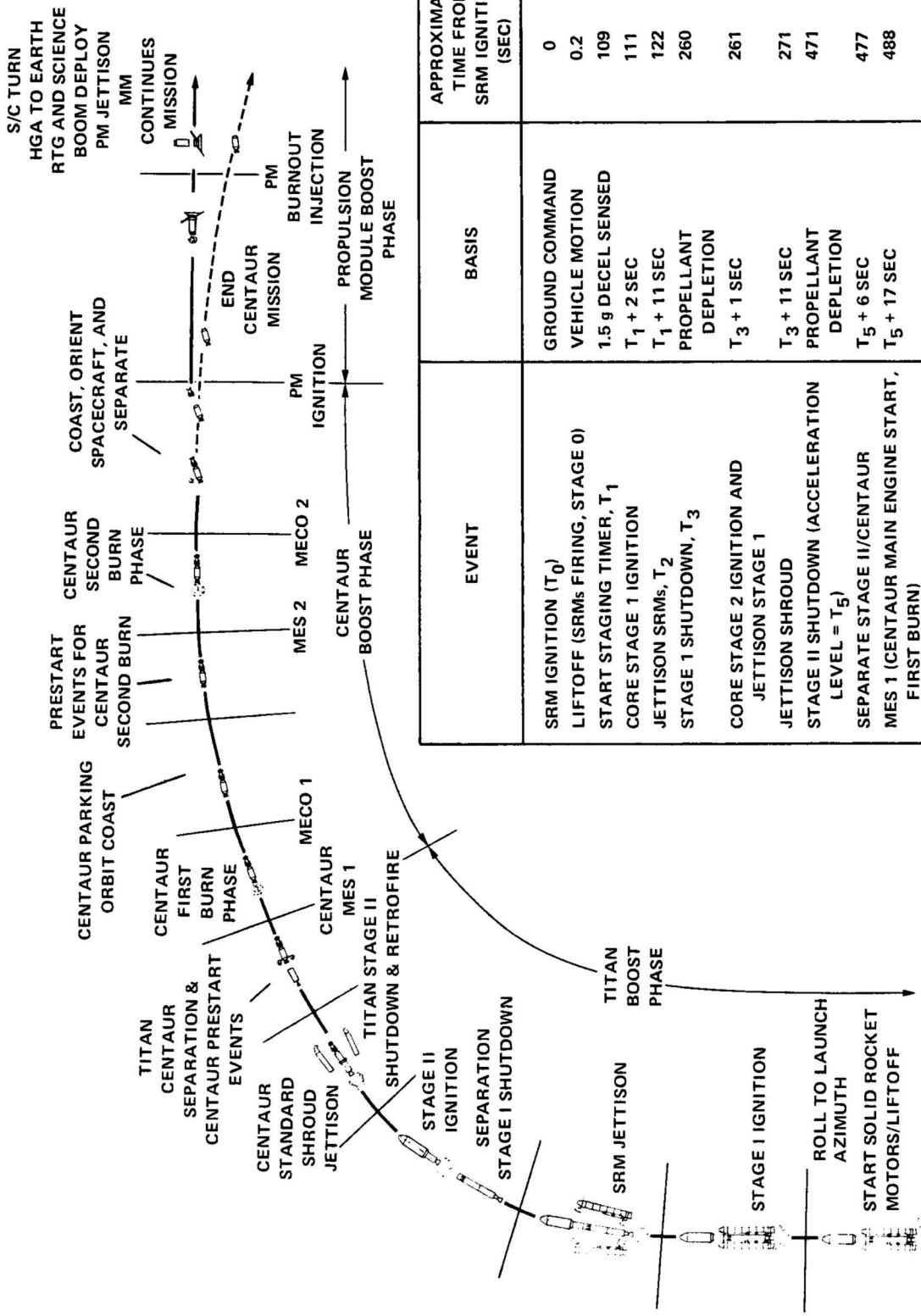
LAUNCH DAY ACTIVITIES

All JPL employees, contractors, and their families are invited to view the Voyager launch activities Saturday, August 20. Launch is scheduled for 7:30 a.m., PDT, and the Laboratory facilities will open at 6:30 a.m.

Launch activities will be presented via live audio from Cape Canaveral, Florida, and there will be three seating areas available: von Karman Auditorium (Bldg. 186), 180-101 conference room, and the conference room adjacent to the main cafeteria (Bldg. 167). Parking will be available in the visitor and adjacent parking lots. The main cafeteria will be serving from 5:30 a.m. to 3:00 p.m.

Launch events commentary from Kennedy Space Center will be broadcast from approximately 7:00 a.m. to 8:30 a.m., PDT. Spacecraft events will be televised from JPL from approximately 8:30 a.m. to 11:30 a.m., PDT.

The program will be videotaped for replay on Monday, August 22, at 10:00 a.m., 12:00 noon, and 2:00 p.m. on the monitors in the main cafeteria (Bldg. 167), lower cafeteria (Bldg. 190), and the Voyager Project Areas in Bldgs. 230 and 264.



EVENT	BASIS	APPROXIMATE TIME FROM SRM IGNITION (SEC)
SRM IGNITION (T_0)	GROUND COMMAND	0
LIFTOFF (SRMs FIRING, STAGE 0)	VEHICLE MOTION	0.2
START STAGING TIMER, T_1	1.5 g DECEL SENSED	109
CORE STAGE 1 IGNITION	$T_1 + 2$ SEC	111
JETTISON SRMs, T_2	$T_1 + 11$ SEC	122
STAGE 1 SHUTDOWN, T_3	PROPELLANT DEPLETION	260
CORE STAGE 2 IGNITION AND JETTISON STAGE 1	$T_3 + 1$ SEC	261
JETTISON SHROUD	$T_3 + 11$ SEC	271
STAGE II SHUTDOWN (ACCELERATION LEVEL = T_5)	PROPELLANT DEPLETION	471
SEPARATE STAGE II/CENTAUR	$T_5 + 6$ SEC	477
MES 1 (CENTAUR MAIN ENGINE START, FIRST BURN)	$T_5 + 17$ SEC	488
MES 1 (CENTAUR MAIN ENGINE CUTOFF, FIRST BURN)	PARKING ORBIT (GUID.)	580
MES 2 (CENTAUR MAIN ENGINE START, SECOND BURN)	COAST PERIOD (GUID.-VARIABLE)	3132
MES 2 (CENTAUR MAIN ENGINE CUTOFF, SECOND BURN)	(GUID.)	3488
S/C - CENTAUR SEPARATION	MES 2 + 170 SEC	3658
PROPULSION MODULE IGNITION	SEPARATION + 15 SEC	3673
PROPULSION MODULE BURNOUT (INJECTION)	IGNITION + 45 SEC	3718

Launch Profile for a Typical Titan/Centaur Two-Burn Mission Launch