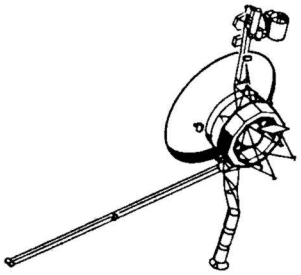

MISSION STATUS BULLETIN

VOYAGER

August 29, 1977 **No. 5**

STATUS SUMMARY

Voyager 2 is about 8 million kilometers (5 million miles) from earth, cruising at 10 kilometers per second (22,370 miles per hour). Calibration of the sun sensors and deployment of the dust cover on the infrared interferometer spectrometer (IRIS) instrument was accomplished the morning of August 29.

Voyager 1 launch is set for September 5 at 5:56 a.m., PDT. The spacecraft will be reencapsulated in the Centaur shroud on August 29.

CURRENT STATUS

Voyager 2

It is still not certain that the science boom aboard Voyager 2 is latched, but star maps returned by the wide-angle cameras indicated that the hinge is only fractions of a degree away from being locked and should present no problems in maneuvering the boom.

The boom is stiff enough to prevent wobbling when the scan platform perched at its tip is maneuvered, and should stiffen further as the spacecraft travels farther from the sun into the colder regions of deep space.

Voyager 2 returned three images along the edge of the science calibration plate on August 26 and 10 star field images on August 27, during sequences designed to more precisely measure the deployment angle of the science boom. From these images, it appears that the hinge is within 0.06 degree of the locked position.

A sequence commanded the morning of August 26 in an effort to move the boom to the locked position was aborted by the computer command subsystem when the attitude and articulation control subsystem (AACS) computer falsely indicated that it might have a problem. The spacecraft is programmed to abort the current sequence and return to celestial lock whenever a significant problem is indicated.

On August 26 the spacecraft generated three images before returning to celestial lock. In this sequence, the spacecraft was removed from its lock on the sun and Canopus in order to execute a pitch turn. It was hoped that simultaneously pitching the spacecraft and jettisoning the dust cover on the infrared interferometer spectrometer (IRIS) by means of small explosive devices would provide enough of a jolt to fully open the boom hinge and allow the locking pin to drop into position. However, the sequence was aborted before this series of events, and the spacecraft automatically restabilized itself by reacquiring the sun and Canopus.

The first trajectory correction maneuver and X-band radio transmitter calibrations have been deferred to a later opportunity, to allow flight controllers to concentrate on the more immediate needs of Voyager 2 and the launch of VGR77-2.

All but one of the science instruments have been turned on. The ultraviolet spectrometer (UVS) may be turned on during the September 2 sequence.

Temperature readings aboard the spacecraft were high on August 29 as the spacecraft made its closest approach to the sun. Engineers monitored the temperatures but found no cause for concern.

VGR77-2 (Voyager 1)

VGR77-2 will be launched on September 5 at 8:56 a.m., EDT (5:56 a.m., PDT) from launch complex 41, Air Force Eastern Test Range, Cape Canaveral, Florida. A launch readiness review will be conducted on August 31 and September 1 at Cape Canaveral.

Engineers have installed five coil springs on the science boom of VGR77-2 to assure proper deployment and locking.

The Centaur shroud will be lowered over the spacecraft on August 29, and post-encapsulation electrical tests will be conducted in preparation for mating to the TC-6 launch vehicle at launch complex 41.

NASA
National Aeronautics and Space Administration

Recorded Mission Status (213) 354-6665
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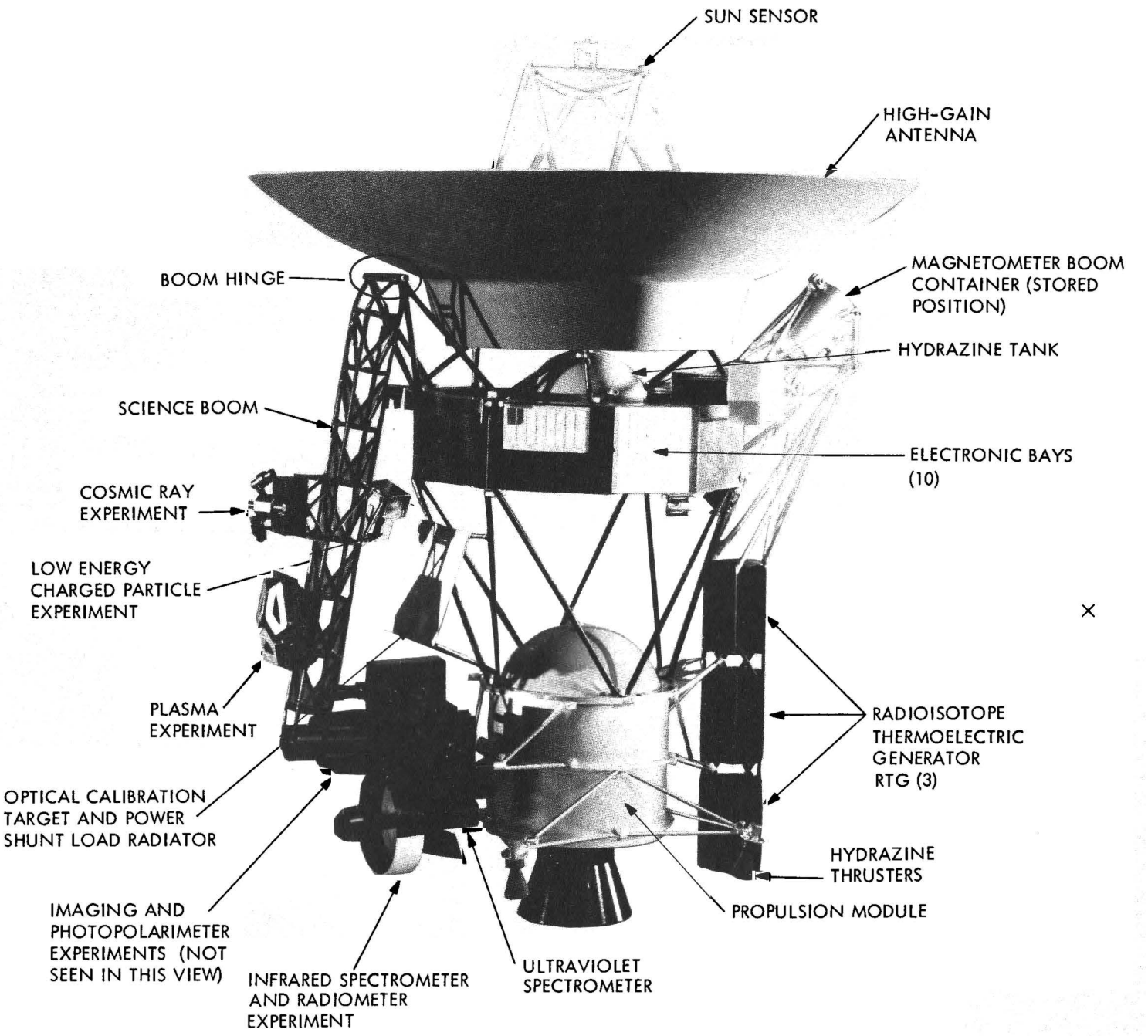

Voyager Spacecraft in Stowed Position

Voyager is encapsulated in the Centaur shroud with its booms and antennas stowed in this manner. The shroud is discarded about four minutes after launch, and 49 minutes later, after the final boost to Jupiter, boom deployment begins.