

ULYSSES CLIMBS TO HIGHEST LATITUDE OVER SUN'S NORTHERN POLE

The European Space Agency's (ESA) Ulysses spacecraft, the first probe ever to fly over the poles of the Sun, will climb to its maximum latitude of 80.2 degrees north of the Sun's equator on Monday, July 31, and survey the solar forces at work from this unique vantage point in space.

The spacecraft will have traveled about 1.86 billion miles when it reaches the summit of its trajectory over the Sun at 11 a.m. EDT, according to mission operations team members at NASA's Jet Propulsion Laboratory, Pasadena, CA.

All Ulysses operations and science experiments continue to go well in this unique, five-year journey out of the ecliptic plane. NASA's tracking facilities near Madrid, Spain and at Goldstone, CA, are monitoring the spacecraft 24 hours a day as maneuvers are performed to keep Ulysses' radio antenna pointed to Earth.

Launched on October 6, 1990, aboard the Space Shuttle Discovery, the 810-pound ESA probe was designed to study the heliosphere -- that region of space dominated by the solar wind -- at all latitudes above and below the Sun's equatorial plane. These high latitude regions have never been explored before.

Named for the legendary Greek adventurer who journeyed to the hidden side of the Sun, Ulysses carries nine scientific instruments provided by European countries and the United States to make detailed studies of solar wind, magnetic fields and particles, interplanetary dust and gas, and cosmic rays entering the solar system from the Milky Way galaxy. In addition, Ulysses' radio data have been used for other experiments to study the Sun's outer atmosphere, or corona, and to search for gravitational waves in interplanetary space, and the gamma ray burst detector helps triangulate the brightest cosmic gamma ray bursts.

Today the spacecraft is traveling at about 55,300 miles per hour with respect to the Sun. Ulysses will begin to descend in latitude as it loops over the northern solar polar region.

On September 29, the spacecraft will complete the northern polar pass and begin to journey back out to the orbit of Jupiter, reaching Jupiter's distance of 5.4 astronomical units (about 500 million miles) on April 17, 1998. Ulysses will then head back on its high latitude trajectory toward the Sun, returning again to its vicinity in September 2000.

Ulysses is managed jointly by NASA and ESA to study the regions above the Sun's poles. The Jet Propulsion Laboratory manages the U.S. portion of the mission for NASA's Office of Space Science, Washington, DC.

