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NASA SIGNS AGREEMENT WITH ESA FOR 1983 SOLAR POLAR MISSION

NASA and the European Space Agency (ESA) have signed an agreement for a joint International Solar Polar Mission (ISPM) to be launched in 1983.

A memorandum of understanding was signed March 29 in Washington, D.C. by Dr. Robert A. Frosch, NASA Administrator, and Roy Gibson, Director General of ESA.

The two-spacecraft mission will observe the Sun for the first time from above its polar regions.

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The primary objectives of ISPM are to extend scientific knowledge and understanding through exploration of the Sun and its environment by studying the Sun's structure and emission as a function of latitude from the solar equator to the solar poles.

Secondary mission objectives are to investigate the interplanetary medium during the initial Earth-to-Jupiter travel and the Jovian magnetosphere as the spacecraft fly by Jupiter and are deflected by its gravity to their solar trajectories.

Under the agreement, NASA and the 11-member ESA will each provide a spacecraft. ESA also will supply the software and personnel to manage and support ESA flight operations and data processing at the U.S. facility.

In addition to ESA's participation, the Federal Republic of Germany, the United Kingdom, France and Switzerland will provide mission experiments.

NASA is also responsible for: one partial and five complete science experiments for the ESA spacecraft; launch operations services and launching of both spacecraft by the Space Transportation System; Tracking and Data Acquisition (TDA) for Earth-orbital checkout of both spacecraft and TDA from deep space; a mission control and computing facility and appropriate data records to scientific and engineering personnel.

Both spacecraft will be launched simultaneously by the Space Shuttle and then directed on a trajectory in the ecliptic plane (the plane which contains all of the planets) to Jupiter by an Inertial Upper Stage booster.

The two spacecraft will swing around Jupiter and use the gravity of that giant planet to redirect their paths out of the ecliptic plane back toward the Sun in trajectories -- one northbound and one southbound -- that are essentially mirror images of each other.

They will pass over the north and south solar poles, swing back through the ecliptic plane, pass respectively over the other solar poles and then fly back out to the vicinity of Jupiter's orbit.

The period from launch until shortly after the second pair of solar passages is approximately five years.

NASA's Jet Propulsion Laboratory (JPL), Pasadena, Calif., has been assigned to manage the NASA effort for NASA's Office of Space Science. JPL also will manage the development of the NASA spacecraft system. The NASA Space Transportation System portion of the Solar Polar Mission will be managed by NASA's Johnson Space Center in Houston. The European effort will be managed by the European Space Technology Center (ESTEC), Noordwijk, The Netherlands.

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