





National Aeronautics and
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**Jet Propulsion Laboratory
California Institute of Technology
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**Voyager 1-17
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Voyager 1 took this photo of Jupiter on February 1, 1979, at a range of 32.7 million kilometers (20 million miles). Scientists can now see different colors in clouds around the Great Red Spot which imply that the clouds swirl around the spot at varying altitudes. Scientists also observe apparently regular spacing between the small white spots in the southern hemisphere and similar positioning of dark spots in the northern hemisphere. A major activity will be to understand the form and structure of the spots and how they may relate to interactions between the atmospheric composition and its motions. When scientists compare this image with the 6,000 others already taken, they see many changes. The bright cloud in the equatorial region north of the Great Red Spot, for example, appears to be where bright clouds originate, then stream westward. On the other hand, the bright ovals south of the Great Red Spot were seen to form about 40 years ago and have remained much the same ever since. The Great Red Spot itself has been observed for hundreds of years, though never in the detail seen here. Objects as small as 600 kilometers (375 miles) across can be seen in this image, the best resolution achieved of Jupiter. This photo was produced from three black-and-white images taken from blue, green, and orange filters and assembled by the Image Processing Lab at the Jet Propulsion Laboratory. The Voyager Project is managed for NASA's Office of Space Science by the Jet Propulsion Laboratory.

The Voyager Project

Two unmanned spacecraft, Voyagers 1 and 2, are now on their way to study our giant outer planets, Jupiter and Saturn, and 11 of their major satellites, several of which are larger than our own Moon.

The Voyager Project was assigned to the Jet Propulsion Laboratory as part of the National Aeronautics and Space Administration program of planetary exploration. JPL communicates with the spacecraft through a worldwide network of deep space tracking stations located in California, Australia, and Spain.

Voyager 2 was launched from Florida on August 20, 1977; Voyager 1, which flies a faster trajectory to reach the planets first, was launched on September 5, 1977.

At Jupiter, Voyager 1 made its closest approach on March 5, 1979. Voyager 2, whose more cautious trajectory will avoid much of Jupiter's intense radiation, will make its closest approach on July 9, 1979. Satellites being studied are Amalthea, Io, Europa, Ganymede, and Callisto. Jupiter's Great Red Spot will be photographed and studied intensively by both spacecraft.