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Voyager 1-149
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Jupiter and its four planet-size moons, called the Galilean satellites, were photographed in early March 1979 by Voyager 1 and assembled into this composite picture. The satellites are not to scale but are in their relative positions. Io, orange in color (upper left), is nearest Jupiter; next are Europa (center), Ganymede, and Callisto (lower right). Nine other much smaller satellites circle Jupiter; one (Amalthea) is inside Io's orbit, and the others have orbits millions of miles from the planet. Not visible is Jupiter's faint ring of particles, seen for the first time by Voyager 1. Startling discoveries on the Galilean moons and the planet Jupiter made by Voyager 1 were factored into a modified mission design for Voyager 2, which flew through the Jovian system on July 9, 1979.

The Voyager Project

Two unmanned spacecraft, Voyager 1 and 2, completed highly successful fly-through encounters of the Jovian system on March 5 and July 9, 1979, respectively. The twin spacecraft, now millions of miles beyond Jupiter, are en route to rendezvous with Saturn in November 1980 and August 1981. Voyager 2 may be placed on a trajectory passing Saturn that permits a Uranus encounter in early 1986. Both spacecraft eventually will escape the solar system into interstellar space.

Each spacecraft weighed 820 kg (1,800 lb) at launch and is equipped with eleven scientific instruments that perform a wide range of planetary observations. Voyager 2 was launched from Cape Canaveral, Florida, on August 20, 1977. Voyager 1, flying a shorter, faster trajectory, was launched on September 5, 1977. Communication with each spacecraft is achieved through a worldwide network of deep space tracking stations located in California, Australia, and Spain.

The more significant Jovian findings were the discovery of a ring system encircling Jupiter, erupting volcanos on the Galilean satellite Io, the large differences in appearance and evolution of the surfaces of Jupiter's four planet-size moons, superbolts of lightning and immense auroras in the planet's violently churning atmosphere, and the complex interactions of Jupiter's magnetosphere with the solar wind and Jupiter's satellites.

The Voyager Project was assigned to the Jet Propulsion Laboratory by the National Aeronautics and Space Administration's Office of Space Science as part of NASA's planetary exploration program.