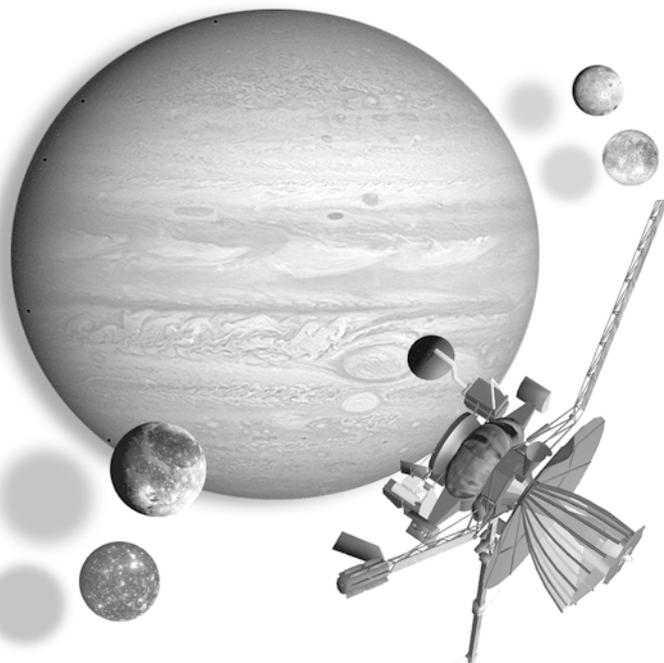


Galileo

The End of a Jovian Odyssey



The Galileo spacecraft's 14-year odyssey came to an end September 22, 2003 when it was deliberately crashed in Jupiter's dense atmosphere, where it disintegrated.

Having travelled approximately 4.6 billion kilometres, the hardy spacecraft endured more than four times the cumulative dose of harmful radiation it was designed to withstand.

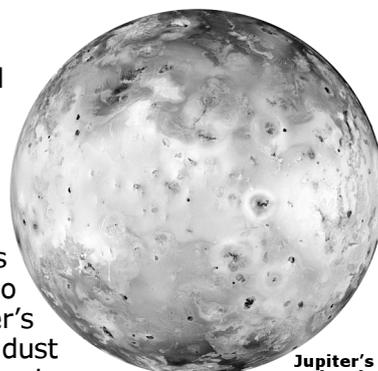
The spacecraft was purposely put on a collision course with Jupiter because the onboard propellant was nearly depleted and to eliminate any chance of an unwanted impact between the spacecraft and Jupiter's moon Europa, which Galileo discovered is likely to have a subsurface ocean. Without propellant, the spacecraft would not be able to point its antenna toward Earth or adjust its trajectory, so controlling the spacecraft would no longer be possible. The possibility of life existing on Europa is so compelling and has raised so many unanswered questions that it is prompting plans for future spacecraft to return to the icy moon.

- 1989 - Galileo was launched from the cargo bay of Space Shuttle Atlantis.
- 1991 - As it crossed the asteroid belt in October that year, Galileo snapped images of Gaspra, returning the first close-up image of an asteroid.
- 1992 - Galileo got up close to yet another asteroid, Ida, revealing it had its own little moon, Dactyl, the first known moon of an asteroid.
- 1994 - Galileo made the only direct observation of a comet impacting a planet — comet Shoemaker-Levy 9's collision with Jupiter.

On arrival at Jupiter, the spacecraft dropped a descent probe to make the first in-place studies of the planet's clouds and winds, and it furthered scientists' understanding of how Jupiter evolved.

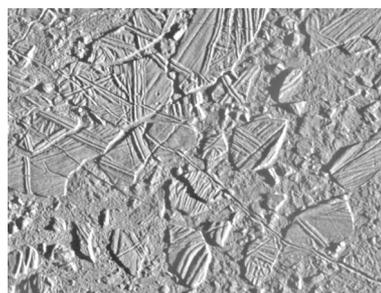
Galileo made the first observation of ammonia clouds in another planet's atmosphere. It also observed numerous large thunderstorms on Jupiter many times larger than those on Earth, with lightning strikes up to 1,000 times more powerful. It was the first

spacecraft to dwell in a giant planet's magnetosphere long enough to identify its global structure and to investigate the dynamics of Jupiter's magnetic field. Galileo determined that Jupiter's ring system is formed by dust kicked up as interplanetary meteoroids smash into the planet's four small inner moons. Galileo data showed that Jupiter's outermost ring is actually two rings, one embedded within the other.



Jupiter's volcanic moon - Io

Galileo extensively investigated the geologic diversity of Jupiter's four largest moons: Ganymede, Callisto, Io and Europa. Galileo found that Io's extensive volcanic activity is 100 times greater than that found on Earth.



Europa's fractured surface reveals a mosaic of 'iceberg'-like formations, possibly hinting at a sub-surface ocean

The moon Europa, Galileo unveiled, could be hiding a salty ocean up to 100 kilometers deep underneath its frozen surface containing about twice as much water as all the Earth's oceans. Data also showed Ganymede and Callisto may have a liquid-saltwater layer.

The biggest discovery surrounding Ganymede was the presence of a magnetic field. No other moon of any planet is known to have one.

The prime mission ended in 1997, after two years of orbiting Jupiter. NASA extended the mission three times to continue taking advantage of Galileo's unique capabilities for accomplishing valuable science.

More information on the Internet at:
www.jpl.nasa.gov/galileo-legacy and
<http://galileo.jpl.nasa.gov>