A Chronology of JPL Spacecraft

Explorers 1-5 **Launch Dates: Jan.–Aug., 1958**
Explorers 1, 3, and 4 discovered and probed the Van Allen Belts.

Pioneers 3 and 4 **Dec. 6, 1958, and March 3, 1959**
Pioneer 4 became the first U.S. spacecraft in solar orbit.

Rangers 1-9 **1961–65**
Rangers 7-9 returned images until their planned moon impacts.

Mariners 1 and 2 **July 22 and Aug. 27, 1962**
The first to another planet, Mariner 2 studied Venus's atmosphere and surface, and measured the solar wind for the first time.

Mariners 3 and 4 **Nov. 5 and 28, 1964**
Mariner 4 took the first close-up photos of another planet, Mars.

Surveyors 1-7 **1966–68**
Surveyors 1, 3, and 5-7 were the first U.S. landings on the moon.

Mariner 5 **June 4, 1967**
Originally a backup Mars craft, Mariner 5 went to Venus.

Mariner 6 and 7 **Feb. 24 and March 27, 1969**
First dual mission to Mars; flew over the equatorial and south polar regions.

Mariner 8 and 9 **May 8 and 30, 1971**
Mariner 9 was the first successful Mars orbiter.

Mariner 10 **Nov. 3, 1973**
Pioneered the "gravity assist" concept, swinging by Venus en route to Mercury.

Vikings 1 and 2 **Aug. 20 and Sept. 9, 1975**
The first Mars landings. Each Viking had an identical orbiter and lander; all four spacecraft completed extended missions.

Voyagers 1 and 2 **Aug. 20 and Sept. 5, 1977**
They completed the Grand Tour of the solar system, and are now heading toward interstellar space.

Seasat **June 26, 1978**
Tested four radar instruments that studied Earth and its seas.

Solar Mesosphere Explorer **Oct. 6, 1981**
Traced the life cycle of ozone in the upper atmosphere.

Infrared Astronomical Satellite **Jan. 25, 1983**
An infrared telescope orbiting above Earth's atmosphere.

Magellan **May 4, 1989**
Mapped Venus's surface. Pioneered the aerobraking technique, using a planet's atmosphere to steer or slow down.

Galileo **Oct. 18, 1989**
Orbited Jupiter and dropped a probe into its atmosphere; made many flybys of its major moons.

Ulysses **Oct. 6, 1990**
A collaboration with the European Space Agency, Ulysses monitors the sun from an orbit around its poles.

Topex/Poseidon **Aug. 10, 1992**
A French-U.S. mission, it measured sea levels every 10 days with an accuracy of less than 10 centimeters.

Mars Observer **Sept. 25, 1992**
Lost shortly before arrival at the red planet.

Mars Global Surveyor **Nov. 7, 1996**
This orbiter operated longer than any other Mars mission.

Mars Pathfinder **Launch Date: Dec. 4, 1996**
The lander and its Sojourner rover explored an ancient flood plain called Ares Vallis.

Cassini-Huygens **Oct. 15, 1997**
A European-U.S. mission orbiting Saturn, Cassini sent the Huygens probe to Titan, Saturn's largest moon.

Deep Space 1 **Oct. 24, 1998**
Tested new technology and took photos of comet Borrelly's nucleus.

Mars Climate Orbiter **Dec. 11, 1998**
This interplanetary weather satellite was lost on arrival.

Mars Polar Lander/Deep Space 2 **Jan. 3, 1999**
Aiming for the edge of Mars' south polar cap and carrying twin soil probes (Deep Space 2), it was lost during final descent.

Stardust **Feb. 7, 1999**
Collected and returned a sample of dust from comet Wild-2.

Wide-field Infrared Explorer **March 4, 1999**
A small telescope that lost its cryogenic coolant soon after launch.

Quick Scatterometer **June 19, 1999**
Measures ocean wind velocities and directions.

Active Cavity Irradiance Monitor Satellite **Dec. 22, 1999**
Monitors the total amount of the sun's energy reaching Earth.

2001 Mars Odyssey **April 7, 2001**
Now orbiting Mars.

Genesis **Aug. 8, 2001**
Collected and returned samples of solar wind particles.

Jason 1 **Dec. 7, 2001**
A follow-up oceanography mission to Topex/Poseidon.

Gravity Recovery and Climate Experiment **March 17, 2002**
A U.S.-German mission consisting of two spacecraft flying together to measure Earth's gravitational field.

Galaxy Evolution Explorer **April 28, 2003**
A small ultraviolet telescope that studies galaxy formation.

Mars Exploration Rovers **June 10 and July 7, 2003**
The Spirit and Opportunity rovers continue to explore opposite sides of Mars.

Spitzer Space Telescope **Aug. 24–25, 2003**
A large infrared telescope. One of NASA's Great Observatories.

Deep Impact **Jan. 12, 2005**
Sent an impactor to smash into comet Tempel 1's nucleus.

Mars Reconnaissance Orbiter **Aug. 12, 2005**
Analyzing Mars's surface to bridge the gap between surface observations and measurements from orbit.

CloudSat **April 28, 2006**
Provides a never-before-seen 3-D profile of Earth's clouds.

Phoenix **Aug. 4, 2007**
A high-latitude lander en route to Mars equipped with a robotic arm to dig into layers with water ice.

Dawn **Sept. 27, 2007**
The first craft to orbit two bodies after leaving Earth. It will orbit Vesta and Ceres, two of the solar system's largest asteroids.