Jet Propulsion Laboratory's Space Explorations

Part 1: History of JPL

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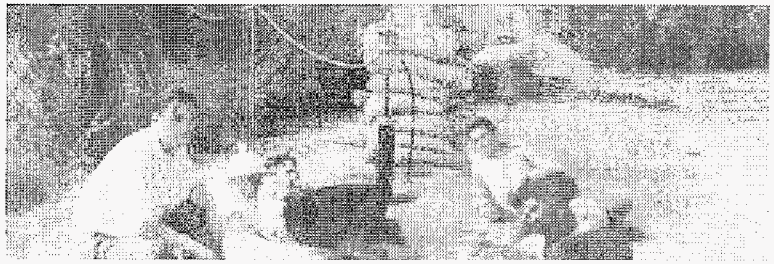
Acknowledgment

- All information in this presentation were collected from the following public web sites:
  - http://www.solarviews.com/cap/index/index.html
  - http://www.jpl.nasa.gov/history/index.html
  - http://www.jpl.nasa.gov/basics
  - http://www.jpl.nasa.gov/about_JPL/jpl101.pdf
  - http://www.seds.org/billa/tnp/
  - http://hyperphysics.phy-astr.gsu.edu/hbase/hph.html

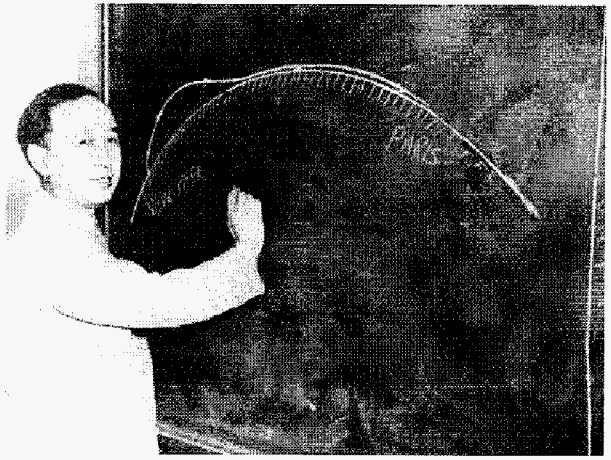
Brief History of Jet Propulsion Laboratory

JPL was founded by Dr. von Kármán in 1936 as a laboratory for rocketry research



First rocket experiment at JPL's site under direction of Dr. von Kármán

Dr. Tsien Hsue-shen, the father of China's rocketry science, was one of the early founders of JPL

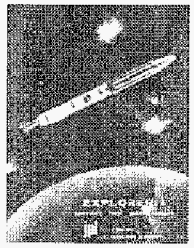


Today's JPL

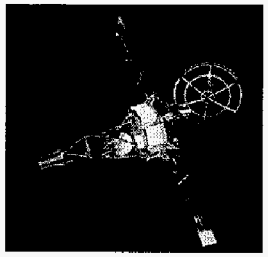
- Location: Pasadena, California, USA
- Number of Employees: 5000
- Area: 177 acres
- Funding: NASA
- Mission: Deep space exploration

Brief History of Jet Propulsion Laboratory (Continued)

JPL shifted from rocketry to space exploration (unmanned) in 1957 as US responded to Soviet Union's 1st successful satellite Sputnik

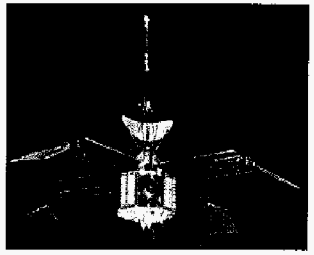


Major JPL missions 1957 – 1975 (Launch Date):



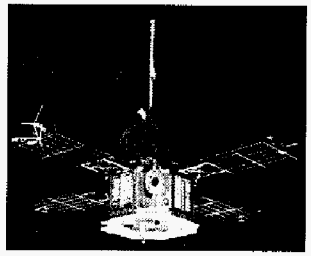
1962: Mariner 2
Mission: Venus
Type: Fly-by

1964: Ranger 7
1965: Ranger 8, 9
Mission: Moon
Type: Crash lander

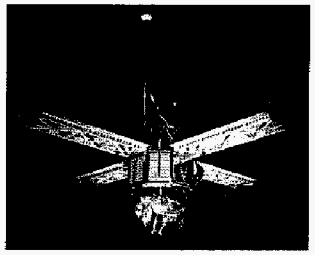


1964: Mariner 4
Mission: Mars
Type: Fly-by

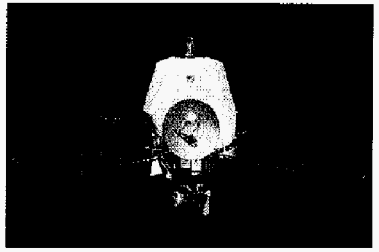
1966 - 1968:
Surveyor 1, 3, 5, 6, 7
Mission: Moon
Type: Soft lander



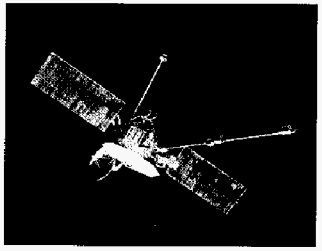
1967: Mariner 5
Mission: Venus
Type: Fly-by



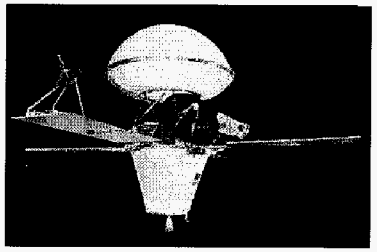
1969: Mariner 6,7
Mission: Mars
Type: Fly-by



1971: Mariner 9
Mission: Mars
Type: Fly-by



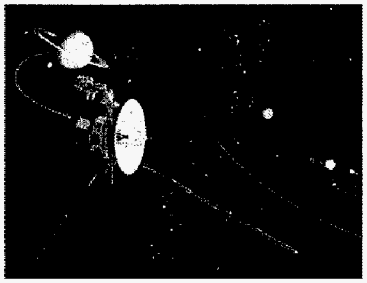
1974: Mariner 10
Mission: Venus, Mercury
Type: Fly-by



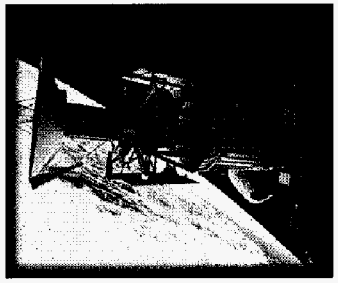
1975: Viking 1, 2
Mission: Mars
Type: Lander

Brief History of Jet Propulsion Laboratory (Continued)

Major JPL missions 1975 – 1999 (Launch Date):

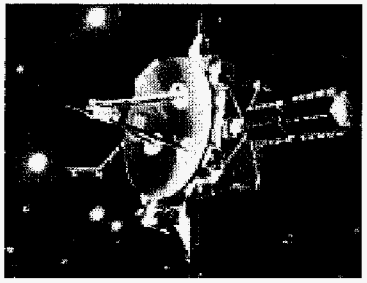


1977: Voyager 1, 2
Mission: Jupiter, Saturn
Extended Mission:
Uranus, Neptune
Type: Fly-by

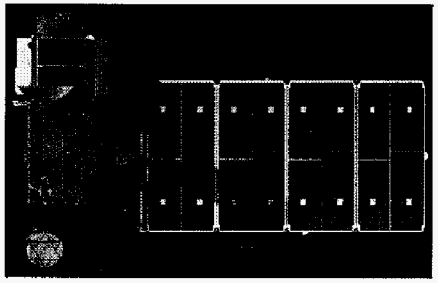


1989: Magellan
Mission: Venus
Type: Orbiter

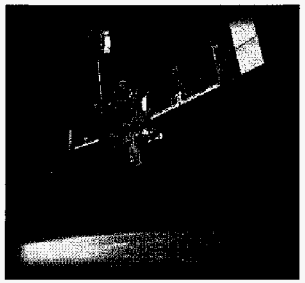
1989: Galileo
Mission: Jupiter
Type: Orbiter



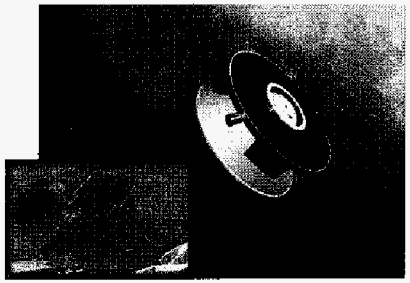
1990: Ulysses
Mission: Sun
Type: Orbiter



1992: Topex/Poseidon
Mission: Earth (Ocean)
Type: Orbiter

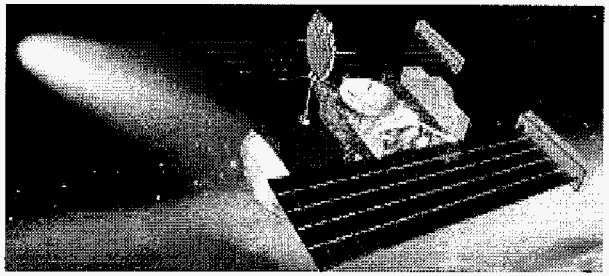


1996: Mars Global
Surveyor
Mission: Mars
Type: Orbiter



1997: Mars Pathfinder
Mission: Mars
Type: Lander & Rover

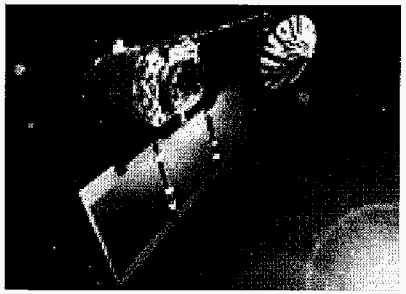
1998: Deep Space 1
Mission: Technology,
Comet Borrelly
Type: Fly-by



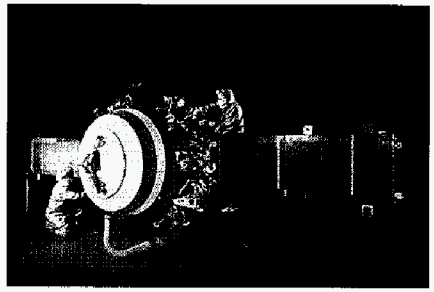
1999: Stardus
Mission: Comet Wild 2
Type: Fly-by & Sample Return

Brief History of Jet Propulsion Laboratory (Continued)

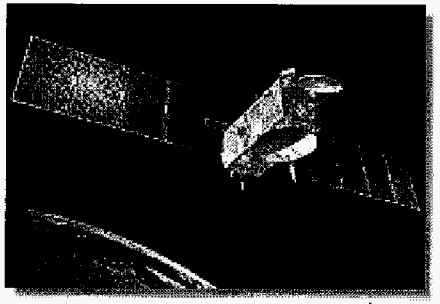
Major JPL missions 2000 – 2005 (Launch Date):



2001: Mars Odyssey
Mission: Mars
Type: Orbiter



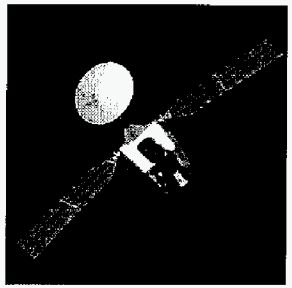
2001: Genesis
Mission: Sun
Type: Sample Return



2001: Jason 1
Mission: Earth (Ocean)
Type: Orbiter

2003: Mars Exploration Rover
Mission: Mars
Type: Lander & rover

2005: Deep Impact
Mission: Comet Tempel 1
Type: Impactor



2005: Mars Reconnaissance Orbiter
Mission: Mars
Type: Orbiter

Future JPL Missions:

- Mars Science Laboratory (~2011)
- Space Interferometry Mission (~2011)

Non-JPL Solar System Exploration Missions:

- Messenger: Mercury mission (APL)
  - Launched in 2004, will arrive Mercury in Apr 2009
- New Horizon: Pluto mission (APL)
  - Will be launched in Feb 2006