The Cassini Mission to Saturn

Saturn’s Largest Moon
• Distance to Saturn: 1,221,850 km (759,200 mi)
• Diameter: 5,150 km (3,199 mi)
• Density: 1.82 g/cm³ (equivalent to 1.82 times the density of water)
• Surface Temperature: –181 °C (–294 °F)
• Surface Pressure: 1.5 bars (approximately 1.5 times surface pressure at sea level on Earth)
• Composition of Atmosphere:
  - Nitrogen (N₂)
  - Methane (CH₄)
  - and other hydrocarbons and nitriles

National Aeronautics and Space Administration
Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

The Cassini Spacecraft
- Main Antenna (High-Gain) 4 m (13.1 ft)
- Low-Gain Antenna
- Magnetometer Boom 11 m (36 ft)
- Radio and Plasma Wave Antennas
- Radar Bay
- Fields and Particles Instruments
- Huygens Titan Probe
- Remote-Sensing Instruments
- RTGs
- Engines

Huygens Titan Probe
- Touchdown on Titan — Nov. 27, 2004

Titan
- Diameter: 5,150 km (3,199 mi)
- Density: 1.82 g/cm³ (equivalent to 1.82 times the density of water)
- Surface Temperature: –181 °C (–294 °F)
- Surface Pressure: 1.5 bars (approximately 1.5 times surface pressure at sea level on Earth)
- Composition of Atmosphere:
  - Nitrogen (N₂)
  - Methane (CH₄)
  - Ammonia (NH₃)
  - and numerous other hydrocarbons and nitriles

Cassini Partners
The Cassini mission is a joint effort of the National Aeronautics and Space Administration (NASA), European Space Agency (ESA), and Italian Space Agency (ASI). The mission is managed for NASA by the Jet Propulsion Laboratory, California Institute of Technology. Partners include the U.S. Air Force (USAF), Department of Energy (DOE), and academic and industrial participants from 19 countries.