

## THE **CASSINI/HUYGENS** MISSION TO THE SATURNIAN SYSTEM

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The Cassini/Huygens mission is designed to **carry** out an in-depth exploration of the Saturnian system. The **spacecraft** will start its interplanetary journey with an October 1996 Titan-4 Centaur launch. Upon arrival at **Saturn**, Cassini/Huygens will go into orbit about the planet. The orbiter will deliver the Huygens probe to Titan in November, 2004. **After** deceleration in the upper atmosphere, Huygens will deploy a parachute system and its six instruments will make scientific measurements and observations as it descends to the surface. These data then will be transmitted to the orbiter **which**, in **turn**, will relay them to the Earth. The orbiter will then commence a four year long tour of the **Saturnian** system. With its complement of 12 instruments, **Cassini** is capable of making a wide range of in situ and remote sensing observations. There will be repeated close flybys of Titan both to make measurements and obtain observations and for gravity-assisted **orbit** changes which will enable **Cassini** to visit other satellites, various parts of the **magnetosphere**, and obtain occultations of the rings and atmospheres of Saturn and Titan. During the span of the **mission**, **Cassini will** also record temporal changes in many of the properties that it can observe.

The **Cassini** mission is a joint undertaking by NASA and ESA. This work was carried out at Jet Propulsion Laboratory, California Institute of Technology, under contract to NASA.