The Cassini/Huygens Mission to the Saturnian System

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The Cassini mission is designed to carry out an in-depth exploration of the Saturnian system. The spacecraft will start its interplanetary journey with an October 1997 Titan-4 Centaur launch. Upon arrival at Saturn, Cassini 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 presentation will emphasize the status of the Project and the planning for future activities. 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.

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