



## Goddard Space Flight Center

To understand and protect our home planet, to explore the Universe and search for life, to inspire the next generation of explorers...as only NASA can.



The Huygens Probe will parachute through Titan's atmosphere on January 14, 2005, carrying the GCMS (left).

Located in Greenbelt, Maryland, a suburb of Washington DC, NASA's Goddard Space Flight Center is home to the Nation's largest organization of combined scientists and engineers dedicated to learning and sharing their knowledge of the Earth, solar system, and Universe.

The Atmospheric Experiment Branch in the Laboratory for Atmospheres at NASA Goddard conducts experiment based research on the atmospheres of Earth, the planets and their satellites, and on small solar system bodies such as comets, to measure atmospheric properties such as chemical composition, pressure, and temperature. Experiments are performed using atmospheric entry probes and from orbiting satellites.

Branch members participate in all phases of these investigations, from instrument development to data analysis and interpretation. The instruments are designed, fabricated, assembled, and tested at Goddard.

Collaborations with many institutions, including universities and private industry, provide significant contributions to the development of experiments and to the analysis and interpretation of data received from flight missions.

The GCMS onboard the Huygens Probe weighs only 17.3 kg, is 470 mm high, and has a diameter of 198 mm.

Atmospheric gas from Titan enters at the heated inlet, is analyzed and then exits through the exhaust tube.

# Cassini- Huygens

# Gas Chromatograph Mass Spectrometer GCMS

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