GLAST Observatory in Orbit

June 11 2008

The GLAST spacecraft and Delta II rocket leap off the launch pad. Photo credit: NASA TV

At 12:05 p.m. EDT, the Delta II rocket easily lifted the GLAST spacecraft off the launch pad, out of smoke and clouds and into a beautiful Florida sky headed for space.

The second firing of the second engine was confirmed as was successful spacecraft separation. Applause rippled through the launch control center as separation confirmation was received.

GLAST is now on its own, in a circular orbit 350 miles above the Earth, prepared to monitor the universe and the mysterious gamma-ray bursts.

GLAST is a powerful space observatory that will explore the most extreme environments in the universe, and search for signs of new laws of physics and what composes the mysterious dark matter, explain how black holes accelerate immense jets of material to nearly light speed, and help crack the mysteries of the staggeringly powerful explosions known as gamma-ray bursts.

With high sensitivity GLAST is the first imaging gamma-ray observatory to survey the entire sky every day. It will give scientists a unique opportunity to learn about the ever-changing universe at extreme energies. GLAST will detect thousands of gamma-ray sources, most of which will be supermassive black holes in the cores of distant galaxies.

"After a 60-day checkout and initial calibration period, we'll begin science operations," said Steve Ritz, GLAST project scientist at Goddard. "GLAST soon will be telling scientists about many new objects to study, and this information will be available on the internet for the world to see."

GLAST: Exploring the Extreme Universe

GLAST is a powerful space observatory that will open a wide window on the universe. Gamma rays are the highest-energy form of light, and the gamma-ray sky is spectacularly different from the one we perceive with our own eyes. With a huge leap in all key capabilities, GLAST data will enable scientists to answer persistent questions across a broad range of topics, including supermassive black-hole systems, pulsars, the origin of cosmic rays, and searches for signals of new physics.

The mission is an astrophysics and particle physics partnership, developed by NASA in collaboration with the U.S. Department of Energy, along with important contributions from academic institutions and partners in France, Germany, Italy, Japan, Sweden, and the U.S.

Source: NASA