

# NuSTAR celebrates first 100 days

September 21 2012, by Whitney Clavin

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NASA's Nuclear Spectroscopic Telescope Array, or NuSTAR, celebrates 100 days in orbit on Sept. 21, 2012. The black-hole spying telescope was blasted into orbit around Earth's equator on June 13, 2012. The mission's goal is to measure high-energy X-ray light from the most extreme objects in the universe, including black holes, neutron stars and supernovae. A black hole is pictured in the middle of the "100" in this artist's concept. Black holes are incredibly dense object, with gravity strong enough to warp space and time. If you could fly up to a black hole for a closer look, you'd see distortions in the light around it as pictured here. Light near the center of the black hole cannot escape its gravity, and thus the black hole appears dark. Credit: NASA/JPL-Caltech

(Phys.org)—Today, Sept. 21, 2012, marks 100 days since NASA's Nuclear Spectroscopic Telescope Array, or NuSTAR, launched into space from the L-1011 "Stargazer" aircraft. Since completing its 30-day checkout, the telescope has been busy making its first observations of black holes, super-dense dead stars and the glowing remains of exploded stars.

In this early mission phase, the [NuSTAR](#) team has been getting to know their telescope better and learning how to point it precisely at targets of interest. NuSTAR has the longest mast of any astronomical telescope ever launched. The 33-foot (10-meter) flexible structure is part of the mission's innovative design, allowing NuSTAR to focus high-energy X-rays into sharp images for the first time. The team has been spending time understanding the mast's mechanics and how they affect the telescope's pointing.

In addition, NuSTAR has continued to team up with other observatories, including NASA's Chandra and Swift telescopes, to make coordinated observations. These joint observations allow astronomers to interpret data from their telescopes more precisely, and to gain a better overall understanding of some of the most extreme events in the cosmos.

As its journey continues, NuSTAR will explore many more targets in our galaxy and beyond.

NuSTAR is a Small Explorer mission led by the California Institute of Technology in Pasadena and managed by NASA's Jet Propulsion Laboratory, also in Pasadena, for NASA's Science Mission Directorate in Washington. The spacecraft was built by Orbital Sciences Corporation, Dulles, Va. Its instrument was built by a consortium including Caltech; JPL; the University of California, Berkeley; Columbia University, New York; NASA's Goddard Space Flight Center, Greenbelt, Md.; the Danish Technical University in Denmark; Lawrence

Livermore National Laboratory, Livermore, Calif.; and ATK Aerospace Systems, Goleta, Calif. NuSTAR's [mission operations center](#) is at UC Berkeley, with the Italian Space Agency providing its equatorial ground station located at Malindi, Kenya. The mission's outreach program is based at Sonoma State University, Rohnert Park, Calif. NASA's Explorer Program is managed by Goddard. JPL is managed by Caltech for NASA.

**More information:** For more information, visit [www.nasa.gov/nustar](http://www.nasa.gov/nustar) and [www.nustar.caltech.edu/](http://www.nustar.caltech.edu/) .

Provided by JPL/NASA

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