



**Chandra X-ray  
Observatory Center**

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**Crab Nebula:** A supernova remnant and pulsar located 6000 light years from Earth in the constellation of Taurus.

(Credit: X-ray: NASA/CXC/ASU/J.Hester et al.; Optical: NASA/ESA/ASU/J.Hester & A.Loll; Infrared: NASA/JPL-Caltech/Univ. Minn./R.Gehrz)

**Caption:** The supernova that produced the Crab Nebula was detected by naked-eye observers around the world in 1054 A.D. This composite image uses data from NASA's Great Observatories, Chandra, Hubble, and Spitzer, to show that a superdense neutron star is energizing the expanding Nebula by spewing out magnetic fields and a blizzard of extremely high-energy particles. The Chandra X-ray image is shown in light blue, the Hubble Space Telescope optical images are in green and dark blue, and the Spitzer Space Telescope's infrared image is in red. The size of the X-ray image is smaller than the others because ultrahigh-energy X-ray emitting electrons radiate away their energy more quickly than the lower-energy electrons emitting optical and infrared light. The neutron star is the bright white dot in the center of the image.

**Scale:** Image is 7.8 arcmin per side.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*