



**Chandra X-ray
Observatory Center**

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Cassiopeia A: A supernova remnant about 11,000 light years away.
(Credit: X-ray: NASA/CXC/xx; Optical: NASA/STScI; Illustration: NASA/CXC/M.Weiss)

Caption: This image presents a beautiful composite of X-rays from Chandra (red, green, and blue) and optical data from Hubble (gold) of Cassiopeia A, the remains of a massive star that exploded in a supernova. Evidence for a bizarre state of matter has been found in the dense core of the star left behind, a so-called neutron star, based on cooling observed over a decade of Chandra observations. The artist's illustration in the inset shows a cutout of the interior of the neutron star where densities increase from the crust (orange) to the core (red) and finally to the region where the "superfluid" exists (inner red ball.)

Scale: 8.91 arcmin across

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
