



ILLUSTRATION



2011

2013

2014



**Chandra X-ray
Observatory Center**

Harvard-Smithsonian Center for Astrophysics
60 Garden St. Cambridge, MA 02138 USA
<http://chandra.harvard.edu>

PSR B1259-63: A binary system with a pulsar and a massive star in orbit around each other.

(Credit: X-ray: NASA/CXC/PSU/G.Pavlov et al; Illustration: NASA/CXC/M.Weiss)

Caption: These images contain X-ray evidence from Chandra that a clump of stellar material has been jettisoned away from a double star system at incredibly high speeds. Researchers think that the pulsar knocked out the chunk of debris, which spans over a hundred times the size of the Solar System, when it collided with the disk around the massive star while traveling in its elliptical orbit. This trio of images shows Chandra observations taken between December 2011 and February 2014. The bright source in the center of these images is the binary system, while the smaller point-like source to the lower right seen in the second two observations is the clump that has been dislodged.

Scale: Image is 40 arcsec across (about 1.3 light years)

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
