



**Chandra X-ray  
Observatory Center**

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**PSR B1509-58:** A 1700-year-old pulsar and its nebula, located about 17,000 light years from Earth.  
(Credit: NASA/CXC/SAO/P.Slane, et al.)

**Caption:** At the center of this Chandra image, a pulsar -- only twelve miles in diameter -- is responsible for this X-ray nebula that spans 150 light years. This pulsar is spinning around almost 7 times a second and has a magnetic field at its surface estimated to be 15 trillion times stronger than the Earth's magnetic field. This combination of rapid rotation and ultra-strong magnetic field drives an energetic wind of electrons and ions, ultimately creating the elaborate nebula seen by Chandra.

**Scale:** Image is 19.6 arcmin across.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*

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