



**Chandra X-ray
Observatory Center**

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Centaurus A Jet: A powerful jet in an active galaxy located about 11 million light years from Earth in the constellation Centaurus.

(Credits: X-ray: NASA/CXC/Bristol U./M. Hardcastle et al.; Radio: NRAO/AUI/NSF/Bristol U./M. Hardcastle)

Caption: This composite image of Chandra X-ray (blue) and VLA radio (red) observations shows the inner portion of a large, magnetized jet in Centaurus A. Purple regions are bright in both radio and X-ray. The jet originates from the vicinity of the supermassive black hole at the center of the galaxy (lower right hand corner of the image). As the jet moves away from the center of the galaxy at half the speed of light, it slows down when it encounters the resistance of gas in the galaxy. This interaction generates a powerful shock wave that produces the extremely high-energy particles responsible for the X-rays seen in the outer portions of the jet.

Scale: Image is 1.1' x .9' (diagonal jet is about 1 arcmin) side.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory