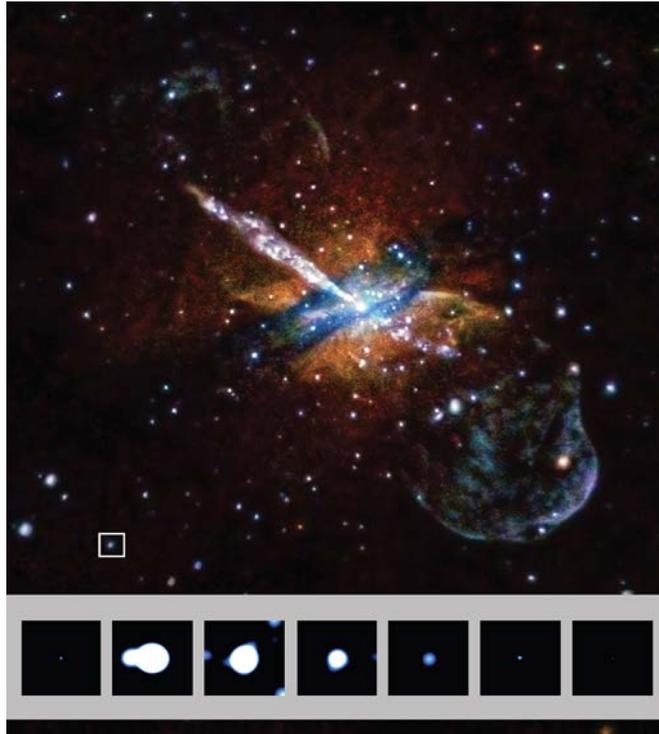




Chandra Science Highlight

Ultraluminous X-ray Bursts



Caption: Chandra image of the elliptical galaxy NGC 5128 (a.k.a. Centaurus A) with low, medium and high-energy X-rays colored red, green and blue. The flaring source is located in the box to the lower left. The panels below the main image show the flaring behavior of the source.

- Four flares were detected by Chandra from a source located in what is likely an ultracompact companion galaxy of NGC 5128.
- The peak luminosity of the flares was ~ 200 times the pre-flare luminosity.
- All the flares showed a fast rise time (< 30 sec), a steady peak luminosity for ~ 200 s, then a decay in ~ 1 hr back to a level \sim that of normal accreting black holes.
- A search of archival data for several thousand sources in 70 nearby galaxies revealed only one other object of this type.

Credit: NASA/CXC/UA/J. Irwin et al.

Instrument: ACIS

Reference: : Irwin, J. et al. 2016, Nature 538, 536

Scale: Main image is 16.7 arcmin across (about 58,000 light years); Inset image is 1 arcmin across (about 3,500 light years)

Distance Estimate:
12 million light years

**CXC Operated for NASA by the
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