



**Chandra X-ray
Observatory Center**

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Hydra A: A galaxy cluster about 840 million light years from Earth.

(Credit: X-ray: NASA/CXC/U.Waterloo/C.Kirkpatrick et al.; Radio: NSF/NRAO/VLA; Optical: Canada-France-Hawaii-Telescope/DSS)

Caption: This composite image of the Hydra A galaxy cluster shows 10-million-degree gas observed by Chandra (blue) and jets of radio emission observed by the Very Large Array (pink). Optical data from the Canada-France-Hawaii telescope and the Digitized Sky Survey shows galaxies in the cluster (yellow). Detailed analysis of the Chandra data shows that the gas located along the direction of the radio jets is enhanced in iron and other metals produced by Type Ia supernova explosions in the large galaxy at the center of the cluster. A powerful outburst from the supermassive black hole then pushed the material outwards, over distances extending for almost 400,000 light years, extending beyond the region shown in this image.

Scale: Image is 4.8 arcmin across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory