



**Chandra X-ray
Observatory Center**

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

HDF 130: A supermassive black hole in a distant galaxy, about 10 billion light years away.
(Credit: X-ray (NASA/CXC/IoA/A.Fabian et al.); Optical (SDSS), Radio (STFC/JBO/MERLIN))

Caption: This composite image of Chandra X-ray data (blue) and radio emission (red) shows a small region of the Chandra Deep Field North, one of the deepest X-ray images ever obtained. An optical image from the Sloan Digital Sky Survey is shown in white, yellow and orange. The diffuse blue object near the center is thought to be a cosmic "ghost" generated by a huge eruption from a supermassive black hole in a distant galaxy. This X-ray ghost remains long after radio waves from the source have died off, giving astronomers an opportunity to study this phenomenon in the early Universe.

Scale: Image is 8.2 arcmin across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
