



**Chandra X-Ray
Observatory Center**

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Chandra Deep Field South: A one-million second image located in the constellation Fornax.

Credit: NASA/JHU/AUI/R. Giacconi et al.

This Chandra image shows that gigantic black holes were much more active in the past than the present. In this deepest X-ray exposure ever made, some of the sources are 12 billion light years away. Most of the objects are active galaxies and quasars powered by supermassive black holes, while other objects are galaxies, and groups and clusters of galaxies. Information from this image will help astronomers understand how dense clouds of gas form galaxies with massive black holes at their centers. The energy bands of the X-rays are color coded, with red representing lower energies, yellow intermediate, and blue the highest energies.

Scale: Image is 16 arcmin on a side.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
