



**Chandra X-ray  
Observatory Center**

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**Chandra Deep Field South** : The Chandra Deep Field South is located in the constellation of Fornax and contains objects over 13 billion light years away  
(Credit: X-ray: NASA/CXC/U.Hawaii/E.Treister et al; Infrared: NASA/STScI/UC Santa Cruz/G.Illingworth et al; Optical: NASA/STScI/S.Beckwith et al)

**Caption:** This composite image combines the deepest X-ray image ever taken with optical and infrared data from Hubble. Astronomers obtained what is known as the Chandra Deep Field South by pointing the Chandra telescope at the same patch of sky for over six weeks of time. The Chandra sources of this small section of the CDFS are shown in blue. Two "stacked" images, which represent a technique used to find the most distant galaxies in X-ray light, are on the right. The results from this dataset include that black holes are found to be actively growing between 800 million and 950 million years after the Big Bang.

**Scale:** Main image is 19.6 arcmin across (about 6.6 million light years across)

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*