



**Chandra X-ray  
Observatory Center**

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**GOODS Chandra Deep Field-South:** A compilation of long observations on the same patch of sky with Chandra, Spitzer, Hubble and other space and ground-based observatories.  
(Credit: Illustration: NASA/JPL-Caltech/T.Pyle (SSC); X-ray: NASA/CXC/Durham/D.Alexander et al.; Infrared: NASA/JPL-Caltech/CEA/E.Daddi)

**Caption:** An artist's illustration on the left shows a typical massive galaxy from when the Universe was about a quarter of its current age. This galaxy contains an active galactic nucleus (AGN), or quasar, which is a luminous object powered by a central, supermassive black hole. The image on the right shows a Chandra image (low-energy X-rays in orange; high-energy X-rays in blue) that has been specially processed to detect incredibly faint X-ray sources. By combining Chandra and Spitzer observations of the same field of view, a new census of AGNs in galaxies in this early epoch was obtained.

**Scale:** Right panel is 25 arcsec across.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*