



Chandra X-Ray Observatory Center

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GOODS Chandra Deep Field North: An X-ray image made by observing a region of the sky three-fifths the size of the full moon for 23 days.

Credit: NASA/CXC/PSU/D.M.Alexander, F.E.Bauer, W.N.Brandt et al.

Chandra's Deep Field North image is the most sensitive or "deepest" X-ray exposure ever made. The faintest sources produced only one X-ray photon every 4 days. More than 500 X-ray sources are present in this high-energy core sample of the early universe. A few are stars in our galaxy, but most of the sources are supermassive black holes in the centers of distant galaxies. If the number of supermassive black holes seen in this patch of the sky is typical, the total number detectable over the whole sky at this level of sensitivity would be 300 million.

Scale for 3C294: Image is 28 arcmin on a side.
Chandra X-ray Observatory ACIS Image