



 Chandra X-Ray  
Observatory Center

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**Sagittarius A\* (Sgr A\*):** The supermassive black hole at the center of the Milky Way Galaxy.

**Credit:** NASA/CXC/MIT/F. Baganoff et al.

This Chandra image of Sgr A\* and the surrounding region was made from a 164 hours of observation time over a two-week period. During this time the black hole flared up in X-ray intensity half a dozen or more times. The cause of these outbursts is not understood, but the rapidity with which they rise and fall indicates that they are occurring near the event horizon, or point of no return, around the black hole. Also discovered were more than two thousand other X-ray sources and huge lobes of 20 million-degree Centigrade gas (the red loops in the image at approximately the 2 o'clock and 7 o'clock positions). The lobes indicate that enormous explosions occurred near the black hole several times over the last ten thousand years.

**Scale:** Image is 8.4 arcmin on a side.

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*

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