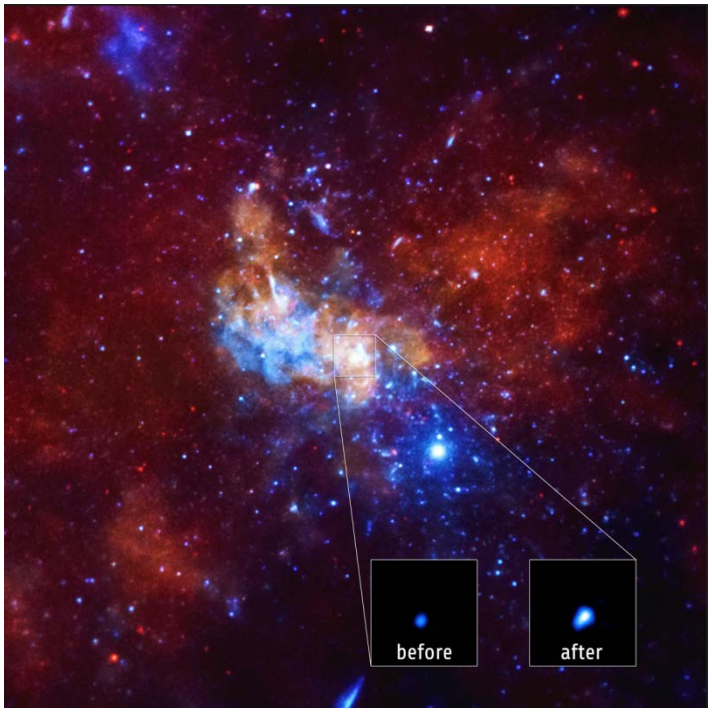
Chandra Science Highlight

Sagittarius A*: Record-Breaking Outburst Detected from Milky Way's Black Hole



Chandra image of Sagittarius A* (Sgr A*), where low, medium, and high-energy X-rays are red, green, and blue, respectively. The inset boxes show the central source in its quiescent and flare states.

- On September 14, 2013, astronomers detected the largest X-ray flare ever detected from Sgr A*, the supermassive black hole at the center of the Milky Way.
- The event was 400 times brighter than the usual X-ray output from Sgr A* and lasted a few hours.
- In October 2014, a flare from Sgr A* that was 200 times brighter than the normal output was also detected.
- Possible explanations include the destruction of an asteroid by the supermassive black hole, or a magnetic flare.

Scale:
Image is 8 arcmin across (about 61 light years).

Distance Estimate:
26,000 light years

Reference: 225th AAS meeting, Seattle, WA (203.07 The X-Ray Variability of Sagittarius A*, 1/6/15)

Credit: X-ray: NASA/CXC/Amherst College/ D. Haggard et al.

Instrument: Chandra ACIS Observation

CXC Operated for NASA by the Smithsonian Astrophysical Observatory

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