



**Chandra X-ray  
Observatory Center**

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**Tycho:** A supernova remnant located about 13,000 light years from Earth.  
(Credit: X-ray: NASA/CXC/SAO; Optical: DSS)

**Caption:** A new image of the Tycho supernova remnant from Chandra reveals an intriguing pattern of bright clumps and fainter holes giving clues about its origin. To emphasize these features, two narrow ranges of X-ray energies were selected to isolate material (silicon, colored red) moving away from Earth, and moving towards us (also silicon, colored blue). The other colors in the image (yellow, green, blue-green, orange and purple) show a broad range of different energies and elements, and a mixture of directions of motion. Chandra's X-ray data have been combined with an optical image of the stars in the same field of view from the Digitized Sky Survey.

**Scale:** About 12 arcmin (45 light years across).

*Chandra X-ray Observatory ACIS Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*

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