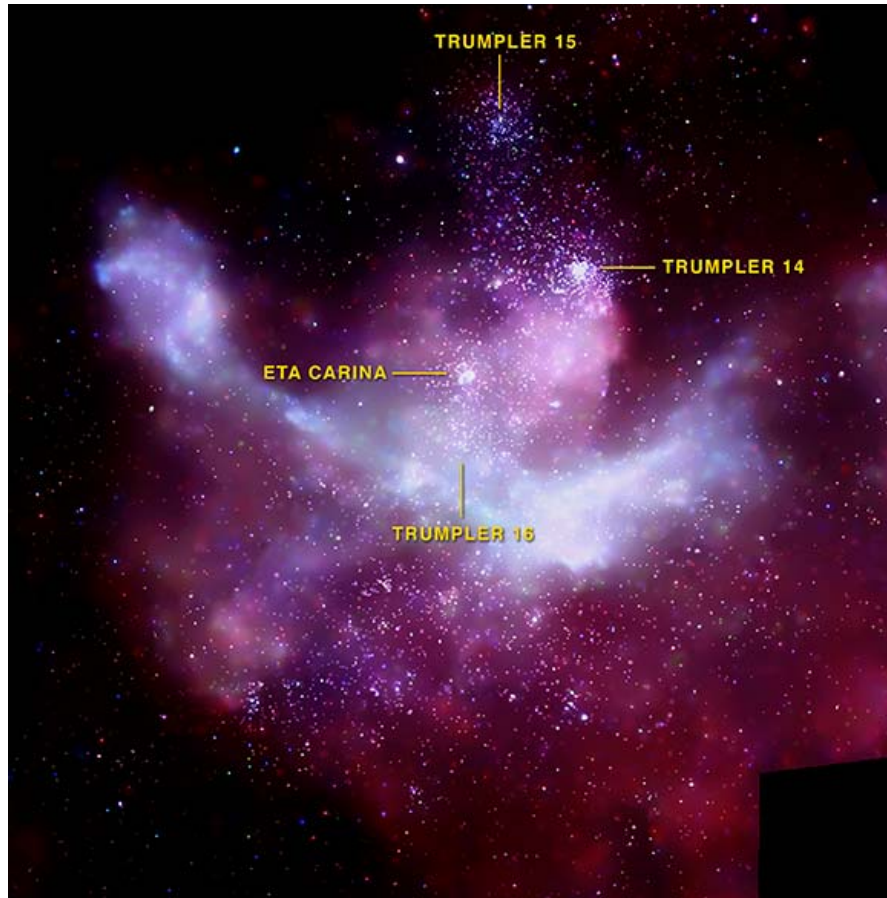




Chandra Science Highlight

Carina Nebula: Nearby Supernova Factory Ramps Up



This new Chandra image is a mosaic of 22 separate pointings of the telescope. Low, medium, and high-energy X-rays are colored red, green, and blue, respectively.

- Chandra detected over 14,000 stars in this region, revealed a diffuse X-ray glow, and provided strong evidence that massive stars have already self-destructed in this nearby supernova factory.
- An observed deficit of bright X-ray sources in Trumpler 15 suggests that some of the massive stars in this cluster were already destroyed in supernova explosions.
- The detection of six possible neutron stars, (too faint to be seen in this image) provides additional evidence that supernova activity is ramping up in Carina.

References: L. Townsley et al., 2011, *ApJS*, 194:1; M. Povich et al., 2011, *ApJS*, 194:6; J. Wang et al., 2011, *ApJS*, 194:11; L. Townsley et al., 2011, *ApJs*, 194:15

Credit: NASA/CXC/PSU/L. Townsley et al.

Distance Estimate: 7,500 light years; Scale: Image is 1.13 deg across (about 148 light years)
Chandra X-ray Observatory ACIS image