



**Chandra X-ray
Observatory Center**

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30 Doradus: A region of active star formation about 170,000 light-years from Earth.
(Credit: X-ray: NASA/CXC/Penn State Univ./L. Townsley et al.; IR: NASA/ESA/CSA/STScI/JWST ERO Production Team)

Caption: 30 Doradus, also known as the Tarantula Nebula, is a region of active star formation located in the Large Magellanic Cloud, a neighbor galaxy of the Milky Way. This new composite image combines X-ray data from Chandra observations of 30 Doradus with an infrared image from NASA's James Webb Space Telescope that was released in the fall of 2022. The X-rays (royal blue and purple) reveal gas that has been heated to millions of degrees by shock waves — similar to sonic booms from airplanes — generated by the winds from massive stars. The Chandra data also identify the remains of supernova explosions, which will ultimately send important elements such as oxygen and carbon into space where they will become part of the next generation of stars.

Scale: The image is about 7.24 arcmin (360 light-years) across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
