



**Chandra X-ray  
Observatory Center**

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**Jupiter:** The fifth planet from the Sun in our Solar System

(Credit: X-ray: NASA/CXC/UCL/W.Dunn et al, Optical: South Pole: NASA/JPL-Caltech/SwRI/MSSS /Gerald Eichstädt /Seán Doran; North Pole: NASA/JPL-Caltech/SwRI/MSSS)

**Caption:** A new study using Chandra and XMM-Newton data reveals that the auroras at Jupiter's poles behave independently. This makes Jupiter unlike Saturn, which does not have any known auroras, and Earth, where the north and south pole auroras generally mirror each other. These images combine X-ray data from Chandra (purple) with data from the Juno spacecraft, which is currently in orbit around Jupiter. Scientists hope to combine data from the X-ray observatories and Juno in the future to determine the nature of the Jovian auroras.

*Chandra X-ray Observatory HRC Image*

*CXC operated for NASA by the Smithsonian Astrophysical Observatory*

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