



**Chandra X-Ray
Observatory Center**

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HH1 and HH2: Herbig-Haro objects located in the Great Nebula in Orion.

Credit: X-ray: NASA/JPL/S.Pravdo et al., Optical: Left: PDSS; Right: NASA/HST

On the left is a Palomar optical image of a region of the Orion Nebula that contains two Herbig-Haro objects known as HH1 and HH2. These objects are either part of high-speed jets of gas streaming away from very young stars, or clouds of gas that have been hit by such jets. The blowup on the right is a Hubble image of HH2, with the green circle indicating the position of an X-ray source detected by Chandra. The detection of X-rays from HH2 implies that a 600,000 miles per hour jet is plowing into a slower moving cloud and heating the gas to a million degrees Celsius. The young star producing the jet is heavily obscured and cannot be seen optically.

Scale: Left panel is 9 arcmin across; Right panel is 50 arcsec across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory