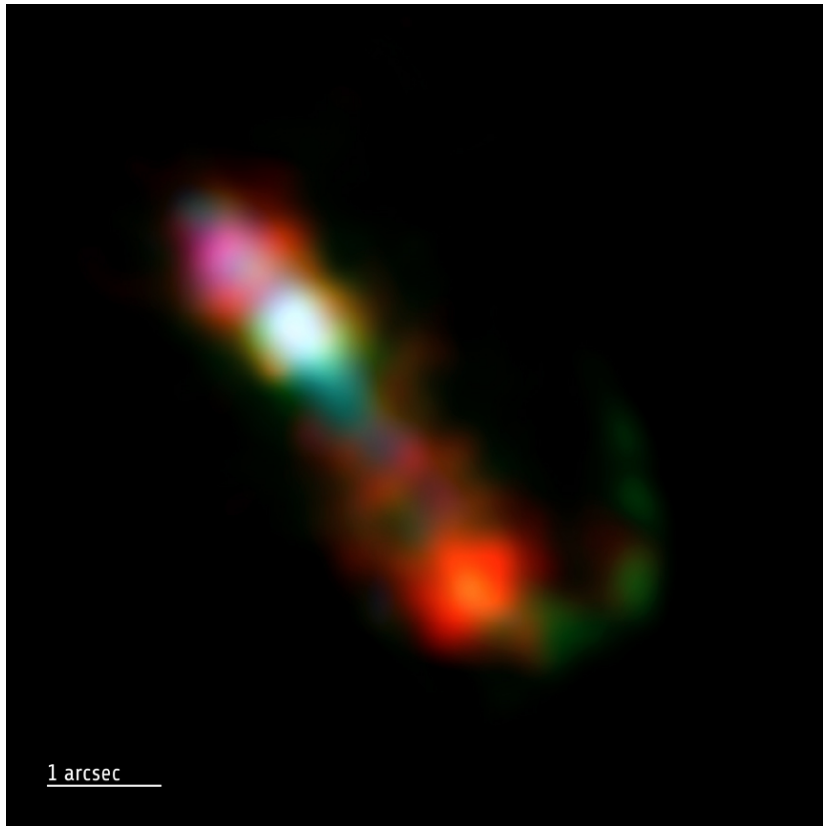




# Chandra Science Highlight

## CH Cyg: A Symbiotic Binary Star System

Chandra X-ray Observatory ACIS image



Distance Estimate: About 815 light years

A composite image of CH Cyg made using X-ray data from Chandra (red), optical data from the Hubble Space Telescope (green), and radio data from the Very Large Array (blue).

- CH Cyg is a so-called symbiotic system in which a wind from a red giant star forms an accretion disk around a white dwarf.
- A powerful jet, presumably launched from the accretion disk, is observed to extend out to 750 AU from the white dwarf.
- The jet has a multi-component structure and a hook-like structure at the end.
- The curved appearance of the outer portion of the jet and the observed clumps is consistent with an episodically powered precessing jet or a continuous jet with occasional mass ejections or pulses.

References: Karovska, M. et al. 2010, ApJL 710:L132-L136

Credits: X-ray: NASA/CXC/SAO/M.Karovska et al; Optical: NASA/STScI; Radio: NRAO/VLA

CXC operated for NASA by the Smithsonian Astrophysical Observatory

**JUNE 2010**