



**Chandra X-ray
Observatory Center**

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3C305: A galaxy, about 600 million light years away, with a supermassive black hole at its center. (Credit: X-ray (NASA/CXC/CfA/F.Massaro, et al.); Optical (NASA/STScI/C.P.O'Dea); Radio (NSF/VLA/CfA/F.Massaro, et al.))

Caption: This composite image of X-ray (red), radio (dark blue), and optical (light blue) data shows activity from the central black hole in 3C305. Unexpectedly, Chandra's X-ray data does not appear to align with radio emission detected by the Very Large Array, but does overlap with the optical emission. Using this information, astronomers believe the X-ray emission is caused either by jets or radiation surrounding the black hole. One of these mechanisms is infusing the interstellar gas with enough energy to cause it to glow in X-ray light.

Scale: Image is 6 arcsec across.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory
