



Sirius A & B: A double star system in the constellation Canis Major.

Credit: NASA/SAO/CXC

The Chandra X-ray image of Sirius A & B, a double star system located 8.6 light years from Earth, shows a bright source and a dim source. The central bright source is Sirius B, a dense white dwarf star with a surface temperature of about 25,000 degrees Celsius. The dim source (slightly above and to the right of Sirius B) is Sirius A, a normal star more than twice as massive as the Sun. The spoke-like pattern of light is an instrument artifact due to the transmission grating. The white dwarf, Sirius B, has a mass equal to the mass of the Sun packed into a diameter that is 90% that of the Earth. The gravity on the surface of Sirius B is 400,000 times that of Earth!

Scale: Image is 77 by 62 arcsec on a side.

Chandra X-ray Observatory HRC/LETG observation