CHANDRA SPECIFICATIONS

Solar Array (2)

Spacecraft Module

Sunshade Door

Aspect Camera
Stray Light Shade

High Resolution Camera (HRC)

Integrated Science Instrument Module (ISIM)

CCD Imaging Spectrometer (ACIS)

Transmission Gratings (2)

Low Gain Antenna (2)

Thrusters (4)
(105lbs)

High Resolution Mirror Assembly (HRMA)
An X-ray telescope is the only way astronomers can observe the hot regions of the Universe. The most powerful optical telescopes, such as the Hubble Space Telescope, cannot see the vast clouds of hot gas that stretch millions of light years across and contain enough matter to make hundreds of millions of stars. X-ray telescopes allow us to image matter swirling as close as 90 kilometers from the event horizon of a stellar black hole or to track the expansion of a hot gas bubble produced by an exploding star.

The Chandra X-ray Observatory has three major parts: (1) the X-ray telescope, whose mirrors focus X-rays from celestial objects; (2) the science instruments which record the X-rays so that X-ray images can be produced and analyzed; and (3) the spacecraft, which provides the environment necessary for the telescope and the instruments to work.

Chandra is the third of NASA’s Great Observatories. The mirrors on Chandra are the largest, most precisely shaped and aligned, and smoothest mirrors ever constructed. The images Chandra makes are twenty-five times sharper than the best previous X-ray telescopes. Chandra, which was launched by the Space Shuttle on July 23, 1999, is helping scientists to better understand the hot, turbulent regions of space and answer fundamental questions about the origin, evolution, and destiny of the Universe.