CON-X

http://cface4.harvard.edu/constX.html

Expected Launch: 2008

Constellation X-ray Mission

Mission

Constellation-X will not be a single telescope but a team of four orbiting telescopes all linked together electronically. They will work together to be over 100 times as sensitive to X-ray light than any other previous X-ray telescope. The telescopes will act as a high-resolution spectrometer, able to determine the energy of each X-ray photon that they detect, allowing them to measure the velocity, temperature and magnetic field strength of objects they observe. The increase in sensitivity over previous missions will allow Constellation-X to peer more clearly into the matter falling into black holes, tracing it down to its last gasp before oblivion. Constellation-X will also be able to trace dark matter, invisible to optical telescopes, but which affects the matter around it with its gravity. Hot gas falling under the influence of dark matter will emit X-rays, betraying its presence. Constellation-X has the potential to help solve the decades-long mystery of the makeup of dark matter.

Education and Public Outreach Program

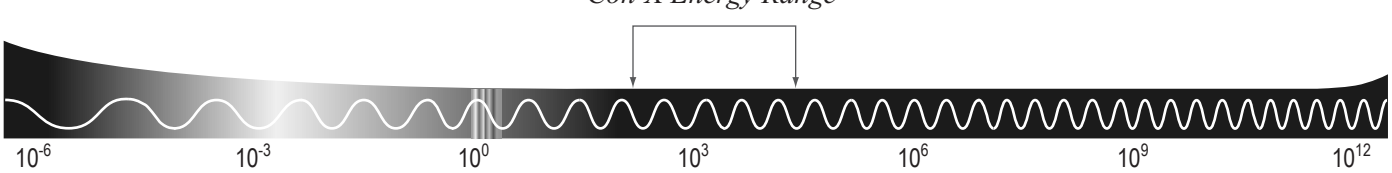
The Constellation-X website contains mission profiles, illustrations of the satellites, videos and animations of the mission. As time progresses and the satellites are built, the website will be upgraded with lesson plans for teachers, hands-on activities for students and more images and information for the general public.

EPO site: *http://constellation.gsfc.nasa.gov/*

Seeing and Exploring the Universe

Constellation-X will detect X-rays which come from energetic phenomena such as black holes, ultra-hot gas and supernovae. The unique contribution of Constellation-X will be its unprecedented sensitivity to X-rays, allowing astronomers to peer more deeply into the high-energy Universe than ever before. Astronomers have learned that the deeper you can see, the more surprises await. Constellation-X will no doubt provide scientists with many unexpected discoveries during its mission.

Con-X Energy Range



Electromagnetic energy spectrum in units of electron-Volts (logarithmic scale)