



This image from the Wide Field/Planetary Camera on NASA's Hubble Space Telescope (HST) presents the first clear view of one of the hottest known stars, the central star of nebula NGC 2440 in our Milky Way galaxy. The superhot star, called the "NGC 2440 nucleus," is the bright white dot in the center of this image. The brightness of the star compared to that of the surrounding nebula indicates that the star is one of the hottest on record.

In previous images made with telescopes on the ground, blurring caused by the Earth's atmosphere smeared together the light from the star with the glow of the surrounding nebula. By clearly separating the starlight from the nebular glow, astronomers have been able to make the most accurate estimate yet for the star temperature: 200,000 degrees Celsius or more. The image has been sharpened by computer.

The Hubble Space Telescope was deployed from the Space Shuttle Discovery on April 24, 1990. HST was designed to study the universe in near-infrared, visible, and ultraviolet wavelengths. HST is one of NASA's Great Observatories. The second Great Observatory, the Compton Gamma Ray Observatory, was launched in April 1991. The Goddard Space Flight Center, Greenbelt, Md., manages HST and the Compton Gamma Ray Observatory for NASA's Office of Space Science and Applications.

## For the Classroom

1. How hot is our star, the Sun? How much hotter is the NGC 2440 nucleus?
2. What enabled scientists to come up with the most accurate estimate yet of this star's temperature?
3. Scientists classify stars according to their spectral type & luminosity. Research and make a chart to help you understand how spectral class, color and temperature are related.

---

Spectral Class	Color	(K) Temperature	Example
A	Bluish-white	7500-11,000K	Sirius

Where would the Sun be placed on your chart?

Where would the NGC 2440 nucleus be placed on your chart?