

NASA's IRIS mission readies for a new challenge

May 22 2013, by Karen C. Fox

(Phys.org) —The time draws near. NASA is getting ready to launch a new mission, a mission to observe a largely unexplored region of the solar atmosphere that powers its dynamic million-degree outer atmosphere and drives the solar wind.

In late June 2013, the [Interface Region](#) Imaging Spectrograph, or IRIS, will launch from Vandenberg Air Force Base, Calif. IRIS will advance our understanding of the interface region, a region in the lower atmosphere of the sun where most of the sun's [ultraviolet emissions](#) are generated. Such emissions impact the near-Earth space environment and Earth's climate.

The interface region lies between the sun's 11,000-degree Fahrenheit, white-hot, visible surface, the photosphere, and the much hotter multi-million-degree upper corona. Interactions between the violently moving plasma and the sun's magnetic field in this area may be the source of the energy that heats the corona to some hundreds and occasionally thousands of times hotter than the sun's surface.

IRIS will orbit Earth and use its ultraviolet telescope to obtain high-resolution solar images and spectra. IRIS observations along with advanced computer models will deepen our understanding of how heat and energy move through the lower atmosphere of the sun and other sun-like stars.

For more information about NASA's IRIS mission, please visit:

www.nasa.gov/iris

Provided by NASA

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