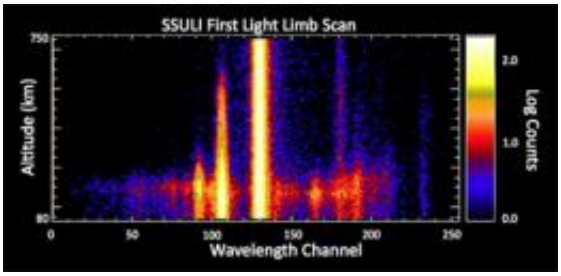
NRL Sensor Observes First Light

December 2 2009



First light limb scan from the SSULI 002 instrument on DMSP F18. The x-axis represents wavelength, the y-axis is altitude and the color represents accumulated counts in 1 second. Source: Naval Research Laboratory

The Special Sensor Ultraviolet Limb Imager (SSULI) developed by NRL's Spacecraft Engineering Department and Space Science Division, launched October 18, 2009 on the U.S. Air Force Defense Meteorological Satellite Program (DMSP) F18 (flight 18) satellite, observed first light on December 1, 2009.

In a sample airglow profile (see figure above) the spectral emission features in the data are clean and show no anomalies.

"The SSULI team is very excited to continue with early orbit testing and begin the calibration and validation process with this instrument," said Andrew Nicholas, SSULI principal investigator, NRL Space Science Division.

Offering global observations, that yield near real-time altitude profiles of the ionosphere and neutral atmosphere, over an extended period of time, SSULI makes measurements from the extreme ultraviolet (EUV) to the far ultraviolet (FUV) over the wavelength range of 80 nanometers (nm) to 170 nm with 1.5 nm resolution.

SSULI data products, once calibrated and validated, will be used operationally at the Air Force Weather Agency (AFWA) as standalone operational data products and also as inputs into operational Space Weather models.

Provided by Naval Research Laboratory (news : web)