

Topic: To quantify the sensitivity of regional and global climate to solar forcing in the full context of the interactive climate system.

Project Title:

Solar UV Irradiance Variation during the Solar Cycle

PI Name: Linton E. Floyd

PI Email: linton.floyd@nrl.navy.mil

Affiliation: Interferometrics Inc.

Project Information:

Analysis of terrestrial climate data have shown effects of the solar activity cycle (e.g., Quasi Decadal Oscillation). Variations in the solar ultraviolet (UV) irradiance are one likely cause because of UV absorption in the Earth's various atmospheric layers. Recent climate simulations based on realistic models of atmospheric processes involving solar UV irradiance have shown that solar UV variation can cause significant terrestrial climate changes. Begun in 1978, space-based measurements of solar UV irradiance are often difficult to interpret because of uncertainties in the long-term responsivity calibration of the measuring instruments. Generally, the solar variations are large compared to these uncertainties for the shortest wavelengths (e.g.

ROSES ID: NRA-NNH04ZSS001N

Duration:

Selection Year: 2005

Program Element: Focused Science Topic

Citations: