



Atmospheric neutral temperature distribution at the mesopause altitude

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In November 1994 and August 1997 the Cryogenic Infrared Spectrometers and Telescopes for the Atmosphere (CRISTA-1 and -2) instrument performed a global measurement (72°S to 72°N) of infrared limb radiance from 4 to $71\ \mu\text{m}$ in the altitude range 6–180 km. Falling sphere and airglow observations at NASA/GSFC Wallops Flight Facility (WFF) and the Mesosphere-Thermosphere Emissions for Ozone Remote Sensing (METEORS) experiment at White Sands Missile Range were coordinated with CRISTA during the field campaign. The derived temperatures are compared with these rocket soundings, partial climatology obtained from Rayleigh scattering observations by Wind Imaging Interferometer (WINDII) on the Upper Atmosphere Research Satellite (UARS) and NRLMSISE-00 model.