



Nitric Oxide in the lower thermosphere: comparison of AIM/SOFIE observations and SD-WACCM model simulations

Koen Hendrickx (1), Linda Megner (1), Jörg Gumbel (1), Daniel R. Marsh (2), Felix Martinsson (3), and Rickard Strandberg (3)

(1) Department of Meteorology, Stockholm University, Stockholm, Sweden (koen.hendrickx@misu.su.se), (2) Atmospheric Chemistry Division, National Center for Atmospheric Research, Boulder, Colorado - USA, (3) Department of Mathematics, Stockholm University, Stockholm, Sweden

In this contribution we assess the physical drivers of Nitric Oxide (NO) throughout the lower thermosphere and the importance of each driver (geomagnetic activity and solar radiation) to the total NO budget. We use high latitude NO observations made by the Solar Occultation For Ice Experiment (SOFIE) instrument onboard the Aeronomy of Ice in the Mesosphere (AIM) satellite and NO concentrations simulated by the SD-WACCM (Specified Dynamics - Whole Atmosphere Community Climate Model) model on SOFIE geolocations. Using a combination of superposed epoch analyses and multiple linear regressions we will discuss similarities and address found differences between observations and simulations.