610

ICESTAR: INTER-HEMISPHERIC COMPARISON OF 11-YEAR SOLAR CYCLE RESPONSE OF OH AIRGLOW TEMPERATURE OBSERVATIONS

S. M. I. Azeem[1], G. G. Sivjee[1], Y.-I. Won[1], A. Weatherwax[2]

[1]*Embry-Riddle Aeronautical University, Daytona Beach, FL, United States,* [2]*Sienna College, Loudonville, U.S.A.*

We have examined Michelson Interferometer OH airglow temperature data to investigate solar cycle variations of mesospheric temperatures at Eureka (80° N, 85.56º W), Canada, Resolute Bay (74.68º N, 94.90º W), Canada, and South Pole Station, Antarctica (90° S). These aforementioned stations have been making continuous measurements of temperature and airglow emissions during the six months of each polar winter night. In this paper we present our results to elucidate solar cycle and trend terms in the MI temperature time series data. In addition, superposed epoch studies have been carried out in order to determine the mesospheric seasonal variation in the Northern and Southern hemispheres. Inter-hemispheric comparisons will be presented to highlight similarities and disagreements observed in the OH temperature response to solar cycle at Arctic and Antarctic sites.