Et-010

Effects of atmospheric tide in the Antarctic mesopause region

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Na temperature lidar observations in the mesopause region (85km-105km) started from February 2000 at Syowa station (69S, 39E). In this paper, the effects of atmospheric tide on the temperature are discussed with the wind data simultaneously observed by MF radar.

The dynamical effects of atmospheric tide on the mesopause region have been examined mainly using the wind data of radar so far. However, it was important to characterize the dominant mode of the tides with temperature or vertical wind data. In recent years, rapidly advanced lidar technology made it possible to do temperature measurements in the mesopause region. Na temperature lidar observations in the mesopause region (85km-105km) started from February 2000 at Syowa station (69S, 39E). In this paper, the effects of tide on the temperature are discussed with the wind data simultaneously observed by MF radar.