

Observation of mean wind variation in the middle atmosphere at Poker Flat and Andenes

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MF radars at Poker Flat, Alaska (65N, 147W) and Andenes, Norway (69N, 16E) are employed together with UKMO stratospheric analysis data, to demonstrate wind system for 2 years of 1999-2000 over the whole middle atmosphere (MA) at the two locations. 30-day low-pass filter was applied. Zonal (U) and meridional (V) winds over Alaska (AK) are generally by some tens of percent stronger than those at Norway (NR). Winter V is largely disturbed, but tended to be in opposite directions, northerly at AK and southerly at NR, implying that a stable S=1 structure dominated through winter. Although a summer MA jet was supposed to be circumpolar, the UKMO and radar observation revealed that the jet was eccentric, which will be discussed in terms of probable reasons, e.g., orographic gravity waves, disturbed ozone and radiation fields, and other geographically forced disturbances.