

theory (1959) adequately explains the differences between Van der Hoven's and our results.

4) At low frequencies in the spectrum beyond the cyclone rise, most activity is found in the annual and semi-annual periods.

The stations used in this study are confined to a latitude belt between 42° N. and 47° N. One may expect that there will be a general shift in importance of the diurnal and annual peaks and of the cyclone rise, if one would study stations at a different latitude.

Through a comparison with the spectra of the zonal and meridional wind components, it is shown that the diurnal cycle in the wind speed is not accompanied by a similar cycle in the wind direction. The diurnal variation in the kinetic energy near the surface with a maximum between 2 and 3 p.m. is in evidence at each of the six stations and for each of the 10 yr.

A closer look at the individual estimates that make up the diurnal peak in the spectrum shows, in addition to the mean spike at 24 hr, side lobes which are probably due to the annual modulation of the diurnal cycle. The diurnal cycle is found to be more pronounced in July than in January. This is what one might expect with a more intense vertical exchange of kinetic energy between the surface and upper levels during the summer.

APPENDIX

Table 3 supplies more detailed information on the spectral estimates and their accuracy for Caribou, Maine. Table 4 gives the average kinetic energy as a function of time of the day for the six stations and the 10 yr studied.

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CORRECTION NOTICE

Vol. 97, No. 3, March 1969, p. 286, next to the last sentence: "Moscow Airport in Idaho reported -50°F , on the 30th, the coldest December temperature of record in the State." is incorrect and should be deleted.