

N87-10454

191

3.5.1 CLIMATOLOGY OF GRAVITY WAVES OVER POKER FLAT, ALASKA FOR 1983

Ben B. Balsley

Aeronomy Laboratory
National Oceanic and Atmospheric Administration
Boulder, Colorado 80303

and

Rene Garello

E.N.S.T.Br., Z.I. de Kernevent
Plouzane B. P. 856
29279 Brest-Cedex, France

An analysis of short-period wind fluctuations over Poker Flat, Alaska, obtained using the Poker Flat MST Radar is presented in Figure 1. Results are shown for the troposphere and lower stratosphere as well as for the upper mesosphere and lower thermosphere. Contours depict various levels of wind variance (m^2s^{-2}). These results pertain only to wind fluctuation periods lying between one and six hours. These particular fluctuations are generally considered to arise primarily from atmospheric gravity waves. Insofar as this is true, the figure thus describes a general climatology of gravity waves at high latitudes.

POKER FLAT, ALASKA
 SHORT PERIOD COMPONENT VARIANCE (1983)
 Rx#1 (~ZONAL)

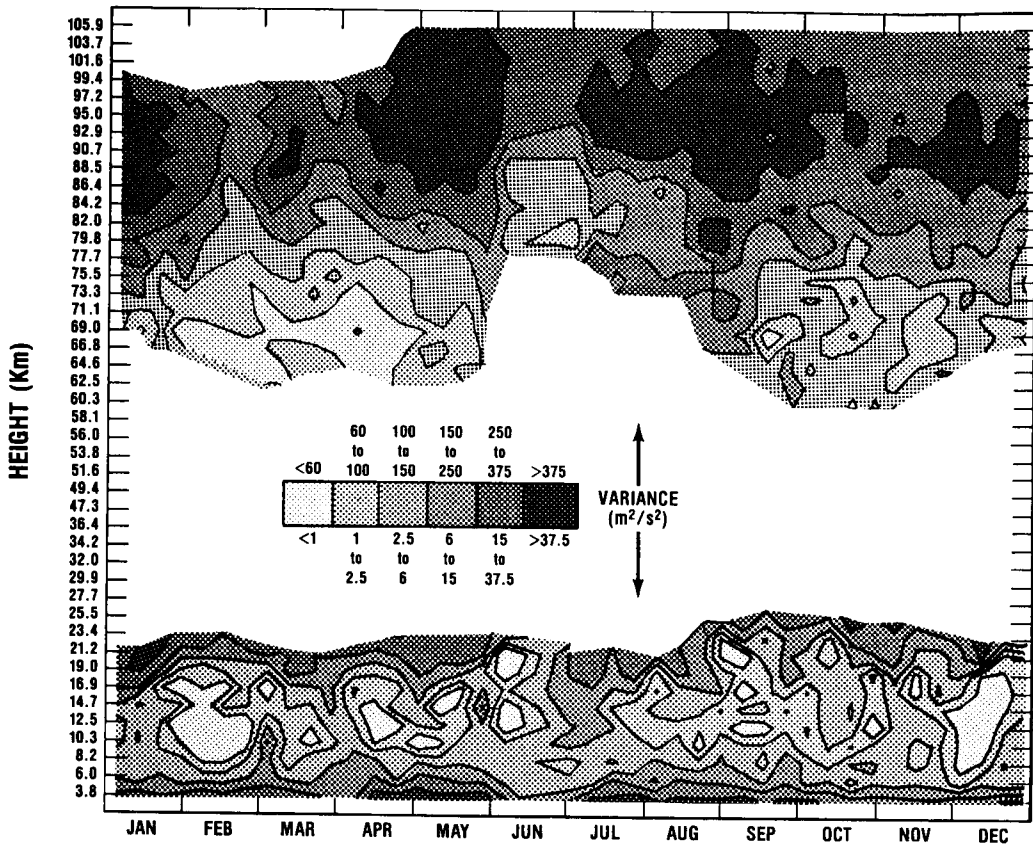


Figure 1. Showing the variance of short-period wind fluctuations versus height time for 1983. Note that blank regions correspond to regions of no data.