

IV. The Constancy of Winds in the Lower Stratosphere and Constant-Level Balloon Flight Planning*

George F. Nolan
Air Force Cambridge Research Laboratories
Bedford, Massachusetts

Abstract

Values of constancy of the wind at the 30-mb level over most of North America, derived from coefficients of variation of the wind, are analyzed for each month. High values of constancy exist during the summer months with low values appearing in apparently well-defined patterns during the other months. These patterns of low constancy values, called areas of maximum wind variability, are especially persistent over the western United States during late winter and early spring. The data and analyses presented can be of aid to meteorologists planning probable trajectories for long-duration, constant-level balloon flights, and can also serve as a basis for the level of confidence the operational forecaster places on long-duration flight trajectory predictions.

* This talk was based on material contained in report AFCRL-65-468, June 1965, Air Force Surveys in Geophysics, No. 166.