

AN ANALYSIS OF NORTHERN HEMISPHERE BLOCK SIZES COMPARED TO CLIMATOLOGY AND SEASONAL VARIATIONS

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ABSTRACT

The goal of the following research was to discover if any trends exist between the size of large-scale, mid-latitude anticyclonic events and seasonal characteristics. A 20-year analysis of North American blocking events was compiled by calculating the mean size of each event using NCEP-NCAR analyses and a simplified Rossby wave equation. Blocking events were identified using block definitions from previous studies and retrieved from the University of Missouri-Columbia blocking database. The sizes of blocking events were then compared to Northern Hemisphere climatological information derived in previous research. Block sizes were compared to El Niño-Southern Oscillation, blocking intensity as defined by Wiedenmann et al. 2002, and other seasonal characteristics. Results will assist researchers and long-range forecasters to predict the scale and potential impacts of blocking events, of which onset and duration are currently difficult to forecast.