

CLIMATOLOGY OF ATMOSPHERIC BLOCKING 1978-2008: GLOBAL AND HEMISPHERIC BREAKDOWN, AS WELL AS IMPACTS OF TEMPERATURE, AND GLOBAL CLIMATE CYCLES.

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ABSTRACT

An examination of atmospheric blocking from the years 1978-2008 was conducted to explore the impacts of temperature and climate cycles on blocking intensity, blocking duration, and total blocking events on an annual basis. The data was analyzed and against global average temperature, ENSO and PDO for each year in the study in both the Northern and Southern Hemisphere.

Though the course of the analyses it was found that Northern Hemispheric blocking intensity and duration were connected to the temperatures as was predicted by Lupo (1997). The annual total blocking events were found to be correlated at a significant level to the PDO. This was shown the clearest in the Southern Hemisphere, because in the Northern Hemisphere the correlation is clouded by the increase in the number of observations from the area around Siberia.

The connection to the PDO, which is still a relatively new phenomena in meteorology need additional study. The connection between blocking and the PDO can have wide impacts in forecasting.