

## *Geological Sciences*



### THE GLACIAL ANTICYCLONE AS A FACTOR IN THE EXTENSION OF THE PLEISTOCENE ICE SHEETS

O. F. Evans  
University of Oklahoma

(Abstract)

The nature of glacial anticyclones is now well-understood, and they are known to be of considerable importance in the study of world weather and climate. Glacial anticyclones must have been of great importance over the Pleistocene ice sheets and exerted a great influence over the wind system of the earth at that time. Probable results in North America were:

1. The paths of the storms were forced south to between 30 and 38 degrees north latitude.
2. The Aleutian and Icelandic lows were forced south to about the 35th parallel.
3. The tropical high pressure ridge was forced nearer the equator and was more broken-up than at present.
4. There was a great increase in the intensity of storms.
5. The southerly position of the Aleutian low caused south winds which brought moisture into the Great Basin and produced a humid climate.
6. The distribution of moisture in the Mississippi valley was similar to that of the present, but was heavier.

The edge of the ice sheet advanced fastest where precipitation was greatest. This resulted in the greatest advance in the region of the mouths of the Missouri and Ohio rivers, and a lesser advance in the region of the Great Plains, and in New York and New England.

