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? WHY THE WEATHER ?

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AMERICAN COLD WAVES UNIQUE

We can claim distinction on several scores for the weather of the United States. Besides holding the world's record for tornadoes, we have the most sudden and pronounced winter cold waves of any continent. A number of factors favor the development of cold waves here.

First, the dry cold treeless interior of the northern part of the continent supplies the cold air for importation to lower latitudes. As South America tapers poleward, it has no such large sub-Arctic land mass over which to build a permanent high pressure area of cold clear air.

From the North American winter high pressure area the natural southward flow is greatly aided by passing or developing storms. America excels in the frequency, intensity and speed of these winter storms. A continent like Asia is too vast and dry to be crossed readily by "lows" or cyclones. Conditions are favorable for a cold wave when a well developed low is followed closely by a strong high northwest of it. Northerly or northwesterly winds on the back of the low sweep the cold air down from Canada, sometimes even to the Gulf states, which, unlike southern Europe, are unprotected by any transverse mountain range. The Rockies act as a barrier preventing an indraft from the west, so the inward whirl of the storm draws heavily on the colder air to the north. The temperature change with the passage of the low may be especially marked, because the southerly winds on the front of the low have previously imported a large body of mild damp air from over the warm Gulf waters.

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(Tomorrow: The Crazy Observer)

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