

A Science Service Feature

Released on receipt
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January 27, 1927

? WHY THE WEATHER ?

Mailed January 20, 1927

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POLAR AIR BREAKS INTO TROPICS

Doucet 50 below zero, Indianapolis 12 below, Atlanta 10 above, with a biting wind of 34 miles an hour out of the northwest, Mobile 22, with a 26-mile north wind; these were temperatures reported January 15, 1927. And then the cold wind swept on into Florida, giving that state the second bad freeze inside a week.

An accumulation of air of polar temperatures, after poking its nose slowly into the region north of the Lakes, rather suddenly broke through to the south on the rear of a strong low having a great extent north and south. In front of this low there was a great sweep of south wind with rain, bringing a January thaw far into the north. On the rear, the polar wind had a free sweep from high latitudes right into the tropics. It came at such a speed and in such volume that the heating from the bare ground and sunshine in the South was not able to prevent the occurrence of very low temperatures there.

Putting a ruler to the weather map, we find that in this cold wind of about 25 to 35 miles an hour the temperature rose about 4 degrees Fahrenheit for every 100 miles of travel over the bare ground. Or one might say that while the ground cooled off under the onslaughts of the cold wind it warmed the large mass of moving air by about one degree an hour. The maximum air temperatures, and, presumably, ground surface temperatures as well, had been generally up to 45 or 50 the day before the cold wave, or some 30 degrees warmer than this wind from the sub-Arctic portion of Canada.

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