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A Science Service Feature

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? WHY THE WEATHER ?

Dr. Charles F. Brooks,  
of Clark University,  
tells how:

NORTH AMERICA INHALES

In summer time North America inhales: air flows into the hot interior from over the cooler oceans. The rate of respiration is not very rapid, as the continent draws but one good breath a day. This interchange of air occurs on a small scale on most of the coasts, as the seabreeze, a wind which extends hardly more than 5 or 10 miles inland on the north Atlantic coast. Throughout the whole wide central plains area, however, this tendency is magnified; the seabreeze is enlarged into the steadier "monsoon" and the wind usually blows in a southerly direction day and night during July. Within 100 to 200 miles of the southern coast, however, a periodic freshening of the general monsoon is experienced, as the daily seabreeze travels in-shore.

In addition to the usual sequence of highs and lows which appear on the weather maps and travel across the continent, we may speak of larger and more permanent tendencies to high or low pressure, called "centers of action". In summer our weather is controlled by four such centers. The large North American Low, over the heated interior plains, is characteristic of a continent in summer. A smaller area of low pressure, the Arizona Low, is located over Mexico. To the southeast lies the Bermuda High in the region of the horse latitudes, normally a belt of high pressure. The California High, off the western coast, lies also in the horse latitudes and in a region where the water is cool relative to the land.

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(Tomorrow: Average July Weather)

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