A Science Service Feature

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? WHY THE WEATHER ?

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WHERE HURRICANES START

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Once more West India hurricanes are in the daily news. Those that lash the southeastern shores of our continent always come from afar; at this time of year most often, it is believed, from the waters off the west coast of Africa. All storms of this category are born in the doldrums -- the irregular zone of calms, squalls and thunderstorms lying over the equatorial oceans and, on the Atlantic, a little north of the equator. The doldrums shift a few degrees north and south through the year, following the movements of the sun. Occasionally the heating and expansion of air over a large area sets up a big vortex in this zone, the rotation of which is due to the deflective force of the earth's rotation upon the inflowing winds. This force increases with distance from the equator.

Strong vortices are most likely to be established on the northern border of the doldrums and especially at the season when the doldrum belt is farthest from the equator. An additional factor in producing them is probably in some cases a conflict between the northeast trade winds and the winds that, beginning as southeast trades, become approximately southwesterly when they pass into the northern hemisphere. Some of these vortices become involved in the east-to-west drift of the trade winds and thus become traveling cyclones.

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