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A Science Service Feature

? WHY THE WEATHER ?

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THE SIZE OF TROPICAL CYCLONES

The cyclones of the tropics, otherwise known as hurricanes, are of small area in comparison with the cyclonic storms of middle latitudes. This statement holds good whether it refers to the entire area in which the barometric pressure is low and the circulation of the winds is under the influence of the storm, or merely to the much more restricted region in which high winds prevail.

In a tropical cyclone the area within which, at any one time, winds are of hurricane force is much smaller than is generally supposed. Probably there are many experienced navigators who do not realize that the whole region of dangerous winds often has a diameter of not more than 20 or 30 miles, and is sometimes even smaller than this. The British Meteorological Office has recently reported some typical cases.

Thus on December 2, 1922, the American S. S. "Eclipse" encountered a cyclone in the Arabian Sea. The ring of winds of hurricane force was only 4 miles wide, while the "calm center" enclosed in the ring was 4 miles in diameter. On September 21, 1922, a hurricane passed over Bermuda. Observations in Hamilton harbor showed that the ring of hurricane winds was 15 miles wide in advance of the center; the center was 7 miles in diameter; and the hurricane winds in the rear were 19 miles wide. In the typhoon that wrought great damage at Hong Kong on August 18, 1923, the ring of destructive winds was 27 miles wide in advance of the center and 12 miles wide in its rear, the center being 7 miles in diameter.

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