

A Science Service Feature

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? WHY THE WEATHER ? Mailed March 29, 1933

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THE UNCERTAIN TRADE WINDS

Sailors know that the trade winds are by no means so steady and regular in force and direction as they are generally supposed to be by the landlubber. They vary considerably from hour to hour and from day to day. This is true of all the trade wind belts, though the trades of the Atlantic are more regular than those of the Pacific and southeast trades of the Atlantic are more regular than the northeast trades of the same ocean.

"The day to day fluctuations of the trade winds," says a nautical authority of the British Meteorological Office, "may be considered as having their origin in the day to day variations in the intensity and position of the great permanent anticyclones. Such fluctuations affect not only the force and direction of the trade winds at any given place, but also frequently give rise to considerably transitory variations in the limiting latitudes of the trades and hence in the width of the doldrums."

The belt of doldrums is a region of calms and variable winds lying in equatorial regions between the trade wind belts of the two hemispheres. For days together it may be hundreds of miles wide, and then the trades will break into it, and even almost extinguish it for a time in certain longitudes.

Maury wrote in sailing-ship days of the doldrum belt: "Within certain boundaries it is continually changing place and limits. This fact is abundantly proved by the speed of ships, whose log-books show that it is by no means a rare occurrence for one vessel, after she has been dallying in the doldrums for days, in the vain effort to cross that calm belt, to see another coming up to her 'hand over fist,' with fair winds, and crossing the belt after a delay in it of only a few hours instead of days."

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