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? WHY THE WEATHER ?

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WEATHER AND THE GULF STREAM

For generations there has been a great deal of theorizing and speculation, some of it very wild and unscientific, concerning the effects of the Gulf Stream upon the weather of America and Europe. The consensus of authoritative opinion on the subject at the present time recognizes that the presence of this great current of warm water in the Atlantic must be a factor of considerable importance - chiefly through its effects on atmospheric circulation - in the climates of adjacent lands, and that any marked variations the stream undergoes must be reflected to some extent in the weather on both sides of the ocean.

While so much has been heard about the supposed effects of the Gulf Stream on weather, comparatively little is ever said about the effects of weather on the Gulf Stream. Some of the latter are summarized as follows in a recent article by H.A. Marmer, of the U.S. Coast and Geodetic Survey:

"Heavy winds, blowing with or against the Gulf Stream, will accelerate or retard its velocity. Furthermore, heavy winds blowing across the Gulf Stream will carry its waters out of their normal channel either nearer to the coast or farther away. Variations in barometric pressure likewise will bring about fluctuations in the movement of this stream. Seasonal variations in temperature in the regions through which it flows will be reflected in somewhat similar seasonal variations in the temperature of its waters. Fluctuations in the Gulf Stream will also arise as a result of fluctuations in the currents that feed it, or that, like the Labrador Current, come into conflict with it."

The chief driving force of the Gulf Stream is due to the trade winds of the Atlantic Ocean. Variations in the strength of these winds doubtless give rise to variations in the strength of the current and in the amount of heat that it supplies to more northerly waters and the atmosphere overlying them.

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