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? WHY THE WEATHER ?

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NORTHWEST WIND VS. SOUTH

Sea captains have reported that northerly gales hit the ocean hardest and cause higher waves than winds of apparently equal velocity from the south. How does this happen? A northwest gust is likely to be colder and heavier than the air immediately over the ocean. It literally plunges down onto the sea, striking the surface at an angle. The south wind is a less effective wave producer because it is usually warmer and lighter than the air it is invading. Instead of blowing directly on the sea surface it is likely to override the cushion of cooler air near the water. This contrast over the western Atlantic is owing in part to the drift of the water - with the south wind and against the north wind.

The same difference may be observed on land. The pressure may be changing just as rapidly in front of a low when southerly winds prevail as in the rear where northerly winds are coming in. Yet the clearing up winds on the back of the storm are usually the stronger because they are more likely to reach the ground with their full force. When the pressure distribution favors a strong south wind there may be a calm on lowlands, where a cushion of cool air prevents the entry of the less heavy, moving air above. Only a very strong pressure gradient will produce a southerly gale at the surface.

(Tomorrow: Salt Air)

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