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A Science Service Feature

? WHY THE WEATHER ?

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RED AND WHITE LIGHTNING

The Weather Bureau recently received a letter from a man in Montana who had spent two summers at a forest fire lookout in that state. He said he had noticed that the lightning of thunderstorms in the vicinity was sometimes white and sometimes red, and that red lightning, though it often tore trees to pieces, seldom started fires. Dr. W. J. Humphreys, the Weather Bureau's meteorological physicist, offers an explanation:

Red or pink lightning owes its color to the presence of hydrogen in the air. Ordinarily, air contains only an extremely minute quantity of this gas, but a lightning discharge through air in which rain is falling may dissociate the water, the chemical constituents of which are oxygen and hydrogen, and if the rain is heavy may set free enough hydrogen to affect appreciably the color of the electric discharge. Hence red lightning implies heavy rain, and heavy rain implies a wet forest, not easily set on fire.

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