

A Science Service Feature

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? WHY THE WEATHER ?

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PLANETS AND EARTH TEMPERATURES

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It has been shown, by Dr. W. J. Humphreys in "Rainmaking and other Weather Vagaries", that the electrical and tidal effects of the planets on our atmosphere are negligible; but are there other ways in which they might conceivably influence our weather? The amount of radiation that we receive from the planets because of their varying phase and distance changes by an amount equal to that received from 240 first magnitude stars. Venus is responsible for most of this variation, as she varies from the equivalent of 209 such stars to zero. But consider that the sun is equivalent in supplying us with radiation to 73,000,000,000 of these stars and the insignificance of planetary changes is apparent. Indeed, they could alter the temperature of the earth's surface by only one millionth of a degree Fahrenheit.

But could the planets affect the earth's temperature by changing the earth's distance from the sun? The planets are able by their gravitational pull to deflect the earth slightly from its orbit. All together, they seldom change the earth's distance from the sun by more than 1/17,000 or the heat received by more than 1/8,500. In all, this might cause a change in surface temperature amounting to only 0.02 degrees Fahrenheit.

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