

A Science Service Feature

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? WHY THE WEATHER ?

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THE GREEN FLASH

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If you are spending the summer where there is a water horizon to the westward, you will have a good chance, in clear weather, of getting a glimpse of the "green flash" at sunset. The chances are equally good of seeing it over a sharply defined eastern horizon at sunrise, if you happen to be up early enough. At sunset the last bit of the solar disk, at the instant of disappearing below the horizon, is likely to turn suddenly to a brilliant green, which lasts but a second or so. At sunrise the green flash, if it occurs, is seen at the beginning of the sun's peeping over the horizon.

This phenomenon is explained by the fact that the green rays of the sunbeams are bent more from a straight line than the red and yellow, and hence reach the observer when the sun is so low that the red and yellow rays do not. Blue and indigo rays are bent still more than green, and the "flash" occasionally assumes one of these colors, but usually these rays are lost by scattering and absorption in passing through the long stretch of atmosphere between the observer and a low sun.

The late Maxwell Hall, the Jamaican meteorologist, used a card with a pinhole through it in watching for the green flash at Montego Bay, where he was able to see it on many days in succession. This device prevents the observer's eye from becoming fatigued by the bright red light of the setting sun and seeing the complementary color green merely as a physiological after-effect.

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