

A Science Service Feature

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? WHY THE WEATHER ?

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HOW TO ESTIMATE CLOUDINESS

Some people are interested in clouds for their beauty, their variety, or their effect on the brightness of a day. But the astronomer wants cloudless skies; the meteorologist desires a variety of clouds visible at different levels; the manufacturer needs sunshine to keep his factory lighted and heated free. So the weather observer usually observes cloudiness, mostly in terms of sky cover, sometimes also in terms of density.

Without special care it is difficult to gauge tenths of sky cover. The lower half of the sky, particularly, is likely to be underestimated. The sky-cover may be approximated by considering the sky divided into an upper half and a lower half by a line at an altitude of 30 degrees above the horizon. The angle of 30 degrees may be found approximately by holding vertically at arm's length a stick half as long as one's arm. If the lower end of the stick is on the horizon, the upper end will be approximately 30 degrees above the horizon. Estimate the number of fifths of the upper half of the sky covered by clouds, whether thin or thick, and the number of fifths of the lower half covered by clouds. The sum of these two numbers is the number of tenths of the sky covered by clouds.

Recording sky-cover without cloud density is as unsatisfactory as using a thick blanket for your bed covering regardless of the temperature. Density may be expressed in the following terms or numbers; transparent (0), semi-transparent (1), medium (position but not outline of sun or moon visible) (2), dense (position of sun or moon not visible) (3), very dense (4).

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