A Science Service Feature

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? WHY THE WEATHER ?

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CITY LIGHTS ON CLOUDS

Sheet clouds covering thesky at night often serve as a sort of mirror for city lights. The light from distant towns is usually most clearly seen in the sky when the cloud sheet is of medium height, fairly thick and with a well defined lower margin. Diffuse clouds are less effective as reflectors.

Sometimes an unusually good reflection of city lights is mistaken for a fire. On one occasion the flickering light from a burning barn 12 miles distant was reflected from high cirrus clouds and was mistaken for some sort of meteoric or auroral display.

A practiced observer can identify the lights of various towns, sometimes even those 30 or 40 miles distant, by their position in the sky. With a cloudy sheet of given height, the nearer a town the higher the lights appear in the sky; since with a reflecting surface the angle of incidence always equals the angle of reflection. In a city the lights most illuminate the clouds directly overhead, for the street lights of the best lighted downtown sections are shut off from general spreading by the high walls of the enclosing building.

This favors distinctness for the central part of town, and so may be used for determining cloud heights when the distance to the best lighted part is known.

Over a city, clouds appear lighter than patches of clear sky. In open country the reverse is true; the clouds look darker than the starlit sky.

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