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? WHY THE WEATHER ?

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NOCTILUCENT CLOUDS

By Charles Fitzhugh Talman,
Authority on Meteorology.

The Meteorological Service of Canada, which has its main office at Toronto, is collecting reports and photographs of noctilucent clouds -- the mysterious clouds that float so high in the atmosphere that they shine by reflected sunlight late at night. Dr. C.A. Chant, of the University of Toronto, writes of these clouds:

"They have been seen in the northern hemisphere only in the summer season and between latitudes 45 and 62 degrees. In the southern hemisphere the only observations are those made at the southern tip of South America in the southern summer. Little is known of their origin and nature except that they appear to be confined to a thin stratum at a height of about fifty miles.

"Noctilucent clouds are rendered visible by sunlight reflected from their lower surface when the sun lies from 10 to 18 degrees below the horizon. They resemble cirrus or cirro-stratus clouds, but may easily be mistaken for aurora or cirrus clouds illuminated by moonlight. They often appear as parallel silvery streaks low in the northern sky, their upper edge tinted orange or yellow. Although noctilucent clouds have been seen frequently in the late evening, observations indicate that they are slightly brighter in the early morning."

As to photographing them Dr. Chant says: "A time exposure of about four minutes with a lens at F 6.3 is required. If some prominent object, clear cut against the skyline, be included in the photograph, it may be possible to compute very approximately the height of the clouds. The time of taking all pictures should be noted to the nearest minute. In order to verify the classification of the clouds as noctilucent the observer should report every detail such as shape, color, azimuth and altitude, and direction and speed of motion, if any."

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