

# Nacreous Clouds



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**Nacreous Clouds over Antarctica** Imaged by Cherie Ude at McMurdo Base in 2004.

*Nacreous clouds glow brightly with vivid iridescent colours.*

*They are wave clouds and their undulating sheet-like forms reveal the winds and waves of the stratosphere.*

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Nacreous clouds, sometimes called **mother-of-pearl** clouds, are rare but once seen are never forgotten. They are mostly visible within two hours after sunset or before dawn when they blaze unbelievably bright with vivid and slowly shifting iridescent colours. They are filmy sheets slowly curling and uncurling, stretching and contracting in the semi-dark sky. Compared with dark scudding low altitude clouds that might be present, nacreous clouds stand majestically in almost the same place - an indicator of their great height.

They need the very frigid regions of the lower stratosphere some 15 - 25 km (9 -16 mile) high and well above tropospheric clouds. They are so bright after sunset and before dawn because at those heights they are still

sunlit.

They are seen mostly during winter at high latitudes like Scandinavia, Iceland, Alaska and Northern Canada. Sometimes, however, they occur as far south as England. They can be less rare downwind of mountain ranges. Elsewhere their appearance is often associated with severe tropospheric winds and storms.

Nacreous clouds **far** outshine and have **much** more vivid colours than ordinary iridescent clouds which are very much poorer relations and seen frequently all over the world.