

A Science Service Feature

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? WHY THE WEATHER ?

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FROZEN FOG

Most fogs, even in winter, consist of water in tiny drops, but fogs composed of ice crystals are also known. The so-called "frost smoke" of the polar regions and of the Norwegian fjords is of the latter variety. It rises in wreaths from ice-free spots, where the water is warm in comparison with the air. Sir Ernest Shackleton wrote of it, as seen in the Antarctic:

"Frost smoke from opening cracks was showing in all directions...It had the appearance in one place of a great prairie fire, rising from the surface and getting higher as it drifted off before the wind in heavy, dark rolling masses. At another point there was the appearance of a train running before the wind, the smoke rising from the locomotive straight upwards, and the smoke columns elsewhere gave the effect of warships steaming in line ahead."

Members of Captain Scott's expedition found that frost smoke formed when the temperature was about zero Fahrenheit or a little below and a brisk wind was blowing, or at a very much lower temperature when the wind was light.

In some districts of the Rocky Mountains a fog of ice crystals is known under the Indian name of "pogonip", and is reputed to be very dangerous to breathe.

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