A Science Service Feature

Released on receipt
but intended for use
April 1, 1926

? WHY THE WEATHER ?

Mailed March 25, 1926

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WEATHER ON ARCTIC OCEAN

Now that we have an international society engaged in exploring the Arctic by means of airships, the weather of that region becomes a matter of special interest. The "Maud" expedition, which returned last summer, made a study of temperature distribution at the ice surface and in the free air during two winters spent on the Polar Sea. It appears that the aviator who flies at a height of 1,000 meters (about 3300 feet) will find the temperature about 14 to 18 degrees Fahrenheit warmer than at the surface. But he may suffer more from cold than one who struggles over the rough ice. Not only is the aviator not exercising, but also he is in an artificial wind of considerable strength. Heavy winds are not common in the Arctic.

On calm winter days the scientist of the "Maud", Dr. H.U. Sverdrup, found the air next the ice surface coldest of all, averaging about 25 below zero. When it was windy the lower air was kept mixed and such low temperatures were not experienced at the immediate surface. Instead, the lowest temperature, perhaps 20 below zero, was found at a height of 100 or 200 meters (300 to 600 feet), the upper boundary of the wind-stirred air. In either case the temperature rose rapidly with further increase in altitude, averaging nearly as high as 5 below zero, at 1000 meters (3300 feet). Above this height the temperature again fell. Insummer the surface temperaturesare close to the freezing point, but as in winter, warmer air is found above 200 meters (600 feet).

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