

A Science Service Feature

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? WHY THE WEATHER ?

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DISPELLING FOG

The artificial dispersal of fog has long been a desideratum, but it has attracted much more attention than ever before since the advent of aviation, which is more seriously hampered by fog than by any other element of weather. If merely the small area embraced in landing-fields could be kept free of fog, the navigation of the air would be immensely facilitated.

As in the case of rain-making, the object is attainable, by methods now known, but only within narrow limits and under favorable conditions. While some fogs are miles deep, the majority are relatively shallow. Over a few acres of land a low-lying fog might be dispelled by heating the air, thus causing the fog to evaporate, or by draining away the fog-laden air through underground channels. Both processes have been seriously proposed but have been rejected after careful calculation of the expense that would be entailed.

A third possibility is to electrify the minute droplets of the fog so as to promote their coalescence into larger drops that would fall rapidly to the ground. Experiments made by the first Lord Rayleigh half a century ago lead to the conclusion that adjacent non-electrified drops do not readily unite in the air, probably on account of the film of air between them, but an electric discharge from drop to drop tends to break down this film and permit coalescence. The problem not yet solved, is to electrify a comparatively large volume of fog. Brush discharges of electricity, electrified spray and electrified sand have all been employed for carrying an electric charge into a mass of fog, but the results, though sometimes appreciable, do not appear to indicate that the process is of practical value.

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