

A Science Service Feature

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? WHY THE WEATHER ?

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Authority on Meteorology:

ICE ON AIRPLANES

Within comparatively narrow limits of temperature ice of two different kinds is likely to gather in considerable quantities on airplanes during flight. One kind is a rough, opaque deposit from clouds or fog; the other a smooth, clear coating formed chiefly from rain. The former, known as "rime," is less dangerous than the latter; partly because the changes it produces in the contours of the wings and other parts have less effect on "lift," and partly because it is much more easily blown or shaken than the clear ice coating.

"As a rule," says L. T. Samuels, of the U. S. Weather Bureau, "the first noticeable effect of an ice deposit is an increase in vibration of the airplane, followed by increasing difficulty in its control. As the deposit becomes heavier, the vibrations may cause severe structural strains, with a possibility of fracturing individual parts. The deposit frequently stops up the nozzle of the airspeed indicator, thus rendering that instrument useless. Other instruments may also be affected. An ice formation on the propeller is likely to produce a difference in weight of the blades, which may become sufficient to cause the engine to break loose."

Icing is a frequent cause of forced landings and has been responsible for many "crashes."

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