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? WHY THE WEATHER ?

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Authority on Meteorology

ICE COATING ON AEROPLANES

The formation of a coating of ice on aeroplanes in flight is one of the most serious hazards of aviation. The ice may be deposited by falling rain or by the droplets of a cloud or fog, under suitable conditions of temperature. C.G.Andrus, of the U.S.Weather Bureau, in a recent discussion of such deposits, points out that they affect the efficiency of the plane in at least three ways:

"The resistance offered by struts, wires, outside fixtures and the wings themselves is immensely increased and the attachment of clods of ice to propeller blades roughens engine action and may reduce the pull. The lifting power of the wings may be diminished by the change in the shape of airfoil by the head of ice on the leading edge (usually on the upper side). The weight of the ship may be increased to an amount in excess of the maximum loading."

As to proposed remedies he says:

"Thus far the application of various soluble, saponaceous and oily substances to the wings has helped for a brief time to prevent ice, but the action is short-lived and too incomplete for safety. To eliminate struts, wires and all possible exposed surfaces is to attack the problem in another way. Suggestions have also been advanced that metal planes can be heated to prevent ice, and this suggestion must be given careful consideration. It has the merit of being continuous in action and positive in results."

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