

for Goderich; and John Agnew for St. Eugene, near Montreal. The vote in favor of the last named was overwhelming, and a date will be set later.

Frank Woodward, Chairman of the Statistics Committee reported that he had contacted 13 clubs from British Columbia to Nova Scotia and announced a 38% increase in glider pilots during the year. The Gatineau Club's Olympia had made 127 flights averaging 1 hr. 29 mi. per flight. Thirteen instructor certificates were issued in 1949, ten dual and three solo.

Contest Classes

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Some people read Hal Cronkhite's original proposed were under the impression that the class distinction would also be used as a handicap for the boys with the better horses. This is not so. The class factors are merely for division and not for weighting the earned points.

It appears to us that if we are to get new blood into our movement we must make room for the new blood, and this applies particularly to our National Contest. If after several years the statistics show that the average age of our contestants is not advancing one year per year then we will know that class distinction is encouraging newcomers. It is certainly worth a try. We lose nothing except perhaps a statistician now and then. On his shoulders falls the work of keeping the class records separately!

Considerations on Laminar Airfoils, von Hangwind, Thermik, vol. 2, no. 12.
(In German)

This paper deals with the problem of selecting a laminar airfoil for the speeds and chords normally used on sailplanes. The Goettingen 682 profile is shown to have a lower drag than the G 549 which has been a favored airfoil on many sailplanes, Olympia, Weihe, Reiher, Wien and many others. Also discussed is the rigidity required in the wing contour if laminar flow is to be retained. A balsa sandwich structure is recommended for best results.

Clipped Wing Habicht, Heinz Kensche, Thermik vol. 2, no. 11, pp. 198-199. (In German)

Performance curves showing a progressive development of a low aspect ratio training sailplane are shown. The normal 44 foot span Habicht was fitted with two sets of wings, one 26' and the other 19.7'. It is conceivable that this research was aimed toward a training method for fighter pilots flying jets or rocket interceptors.

SOARING REVIEWS

A Jet Turbine, Schweizer Aero Revue, January, 1950, vol. no. 1, pp. 36-37 (In German)

A jet turbine of very simplified design consisting of a centrifugal compressor and a centrifugal turbine is under development in Switzerland. This turbine is to give a thrust of 375 pounds at a speed of 36000 rpm. The most unusual feature of this power unit is the low price, about \$500. This is approximately 10% of the price of the nearest competitor in small jet units for aircraft. Such a unit might be readily adaptable to the propulsion of some of our heavier two-place sailplanes since the dry weight of the unit is only 110 pounds. The fuel consumption is 1.4 pounds per pound of thrust per hour. A compression ratio of 3.3 is used. This is by far the cheapest, simplest, and lightest jet unit potentially on the market. Let us hope that in the succeeding development of this unit it does not also develop a higher price and complexity.

Soaring in Updraft Streets, J. Kuettner, Schweizer Aero Revue, December, 1950, vol. 24, no. 12, pp. 480. (In German)

A very excellent description of meteorological conditions in which long cross-country flights are possible. Photographs show cloud streets but the author is careful to point out that dry thermals can also form in streets. It is quite possible that many sailplanists have spiralled when they could have simply glided downwind in an updraft street. The author delves into the classical theories of cellular development in fluids. He brings out the fact that a critical wind velocity is required for the cells to form in long streets. This vertical velocity in the atmosphere he gives as 20 mph. Woodcock (Soaring Nov.-Dec., 1942) shows experimentally that the critical velocity is around 14 mph. The author points out the possibility of breaking the international distance record in the northern latitudes of the Scandinavian Peninsula where the day is long in summer and where long updraft streets occur often.

Wave Soaring over the Plains, Prof. Dr. Walter Georgii, Thermik, vol. 2, no. 11, pp. 192-197. (In German)

The writer, former director of the German Research Institute for Soaring Flight, describes soaring conditions preceding a frontal passage. Over the leading edge of the front, waves develop which are shown in the high alto-cumulus clouds which form in long bands and pass over a region with the front. Schematic diagrams showing theoretical conditions in such a frontal passage are shown. The exploration of this phenomenon should open an entirely new field of soaring. For its development, however, we must be prepared to tow to altitudes as great as 20,000'.