# Air Trails Magazine To Feature Monthly Column On Soaring

Alexis Dawydoff

AIR TRAILS, popular magazine devoted to modelling and general aviation, is to feature a monthly column devoted to soaring beginning with the May issue (out in April). This announcement was made to SSA officials and State Governors late in January by Alex Dawydoff, technical editor of the magazine, and well-known member of the Society. This good news means that information about gliding and soaring will at last be readily available to thousands of aviation-minded Americans. A large percentage of the 400,000 people reached by this publication are the teen-aged modellers, a group with fine possibilities as potential membership material.

For this undertaking to be successful, it is imperative that Alex receive the full cooperation of all SSA members. He plans to run features on various groups and individuals, descriptions of flights, and reviews of contests. HOWEVER, this material must come from us!

Alex requests that all material sent be typed, double spaced. He will also need photographs. These must be sharp, and printed on glossy paper. They should be 8 x 10, but 4 x 5 will do if you can't get a good enlargement. The main subject of the picture must be large. A glider one thousand feet up and looking like a fly-speck is no good. Let's keep these points in mind, and get some good pictures of our activities. And we repeat, all material is welcome, and absolutely needed.

This column will represent a significant contribution on the part of Alex to soaring in America—the latest of many. He has been a member of SSA since 1934. During his early years as a glider pilot he worked for J. C. Penney, Jr., when the chain store man tried to interest America in soaring as a sport. He wrote the first column on soaring to appear in a national magazine. (Incidentally, among those who took up gliding because of the interest he generated with this column is Paul Tuntland.) Alex has been closely associated with several clubs and schools and flies regularly. Since he has been on the staff of *Air Trails*, he has regularly had articles on soaring printed in that magazine.

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clearly displayed by the fact that up to about 5° of rudder no yaw would be produced. At 5° of rudder deflection the ship would suddenly begin yawing. It was suspected that the rudder lay in the wake of the fuselage and therefore was not effective. Upon Flat Topping the ship, the rudder was found to possess a uniform control right through neutral.

In conclusion it may be well to summarize the gains made by the various modifications to the TG-4a:

a. Longitudinal stability and stick movement were markedly improved at all speeds, equalling that of the Olympia.

b. Lateral stability in the stall was not affected materially. It was improved if any change occurred at all. The lateral stability is sufficiently good that there is no need to consider slots or flaps to improve it.

c. Directional stability was improved materially. The dead region of 5° (+ or −) was removed.

d. Rudder control forces were increased to a point where they are readily felt.

e. The ailerons were not subject to flutter at high speed after removal of the static balances.

f. The adverse yaw should be reduced by the improved directional stability but even with Flat Topping the adverse yaw is excessive for both soaring and research flying. Additional directional stability is not a solution to this adverse yaw problem because adding vertical tail will increase the spiral instability of the ship.

It is the author's pleasure to acknowledge the encouragement of Dr. Harold Flinsch, Director of the Engineering Research Station, within which most of this work was carried on. To Mel Swartzberg the author is most grateful for his cooperation in carrying out the rather critical flying required in yaw testing.