

Why Singleplace Glider Training Was Used in Europe

by Jerzy Illaszewicz* **

AT the close of the last great war, glider programs started rapidly in many countries of Europe. In order to understand the course the programs followed we must bear in mind the point to which all aviation knowledge of aerodynamics and meteorology had advanced at that time.

The early glider pilots had their entire training on gliders designed and constructed by themselves and without the aid of any instructors. Performance designs were determined by trial and error since no experimental data were available. Simplicity and ease of construction led to the extensive use of single place gliders. Somewhat later a few two place gliders were introduced which made it possible to compare the relative merits of using single or two place ships for the initial training period.

Since Germany was at this time prohibited from flying power planes the gliding movement took hold rapidly there. Independent experiments made in Germany, Poland and Russia during this post war period pointed to the conclusion that single place ships were best for training purposes. The reasons for this conclusion were three fold; technical, psychological and the fact that single place instruction is a definite asset in building confidence and initiative. I shall discuss each of these categories in turn.

Technical Reasons

In extensive glider programs such as were prevalent in Europe just prior to the outbreak of the present war, for example in Germany where glider training was obligatory for high school students, the weight of the training glider is of primary importance. When a small group of young students is responsible for the care, handling and upkeep of a ship, use of a light single place glider is indicated. In addition if the group must depend on shock cord or winch tow launching a single place ship is more suitable and practical than the heavier, more unwieldy two place and with the higher wing loading the landing speed is higher.

Psychological Reasons

As in all forms of learning, glider instruction should be based on a step by step system adapted to the individual

needs of the student. We must never lose sight of the fact that people differ in temperament and ability, nor should we try to force them through a standardized instruction mould.

The need for recognizing individual differences is extremely important in glider instruction because glider flying is based on the movements of the atmosphere, the interpretation of which each student must learn for himself to succeed. Also, in glider flying situations may develop that call for split-second timing and instant decisions. It is therefore essential that the instructor encourage the initiative and independence of the student. This he cannot fail to do if single place ships are used in training for from the very beginning the student has been forced to think and act for himself at a pace which matches his progress in gliding.

Definite Asset in Building Confidence and Initiative

The author wishes to remind you that the use of single place gliders for instruction was used for more than 250,000 glider pilots trained in several European nations.

In Germany where a 50-hour glider training course was a prerequisite to power flying, a glider pilot was so proficient that only one week was required for him to be able to pilot a modern power plane and less than three additional weeks training prepared him to successfully pilot a two engine bomber.

The author had a class of 30 students who had spent an average of 50 hours piloting gliders before being allowed near a power plane. Following this during a three-week period of training only in the evening they completed training in a *single place* small power plane.

Much of the credit for the above mentioned results should be given, I think, to the self confidence the pupils gained by piloting single place gliders in the early part of their training.

Having explained the three reasons for using single place gliders in Europe, I shall add my personal suggestions based on my ten years of experience in Poland and France.

In discussing glider instruction please do not forget that the glider flies toward the ground if there is no up current of air. There must be a certain minimum altitude for security in the air and for landing. A two place glider is too heavy to gain the necessary altitude unless

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