

# 1964 OSTIV Activity in Varese

The second OSTIV course took place from September 6 to September 18 in the newly completed club-house on the Calcinatè del Pesce airfield near Varese. This course was concerned with flight testing and evaluating several Standard Class sailplanes, particularly the OSTIV prize-winners, Ka-6 CR, Standard Austria SH, and Vasama. The organization and scientific guidance was under the leadership of Dipl.-Ing. Hans Zacher assisted by Dipl.-Ing. Martin Rade, both of whom were associated with DVL at Munich-Riem.

**Sailplanes:** The following types were available in addition to those mentioned above: Mucha 100, Mucha Standard, M-100 S, Uribel B and C and an Italian-built L-Spatz. Broadening the span coverage were Eolo (18 m) and Kria (12 m), and the Bocian and EC-40 Eventuale two-seaters were available for instructional purposes. Towing was done by two Stinson L-5 and one DO-27.

**Personnel:** The course was made up of representatives from Australia, Finland, Germany, Italy, Luxemburg, Netherlands and Sweden. Among them were Dipl.-Ing. Jalkanen, one of the designers of Vasama, and Dr. Ciani, designer of Uribel and EC-40. In addition five students from Germany took part, concerning themselves particularly with making the more precise measurements.

**Programme:** This covered theoretical and practical instruction on each sailplane type and also the consideration of flying qualities. The basis for this work were the two FFM Reports Nos. 40 and 62\*. Each person taking part had to write down his general impressions after his first flight in each aircraft flown and then carry out further test flights during which, for example, the following items were judged:

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\* Nr. 40. H. Zacher, «Flugeigenschaftsuntersuchungen an 14 Segelflugzeugen».

Nr. 62. M. Rade, P. Weishaupt, H. Zacher, «Flugeigenschaftsprüfung von sieben doppelsitzigen Segelflugzeugen im OSTIV-Kurs Varese 1963».

Stalling, turn reversal, rolling, yawing, spiral dive, sideslip, airbrake effectiveness, and turns using only one control.

These flight tests were followed by systematic investigations on the ground, such as kinematics of controls, control system friction, ease of assembly and disassembly, and size of cockpit. In addition, special flight measurements, such as control load pattern and comparative performance using the Ka-6 CR calibrated by the DVL-FFM as a standard, were made. Finally by grace of fine weather, pure soaring flights were carried out which brought further knowledge to assist the practical evaluation of these Standard Class sailplanes.

The performance measurements were of particular interest in which the Standard Austria, Vasama, Uribel, M-100 S and L-Spatz were compared with Ka-6-CR and to some extent compared with each other. These measurements showed that the measured sinking speeds were somewhat higher than estimated for most of the sailplanes concerned. The flights will be further analysed more precisely and these results and those of all the measurements, including flying qualities, will be contained in a report to appear in 1965. This report will also contain suggestions for improvements.

At evening discussions the test results were thoroughly discussed and particular subjects such as V tails, airbrakes and performance of 12 m span sailplanes were discussed. Suggestions on improving safety, comfort and performance were worked out, which might be of use for new editions of structural and test requirements. Dr. F. X. Wortmann, who took part as a guest in the test flights in two-seaters, gave two lectures on «Aerodynamic Improvements for High Performance Sailplanes».

Before the start of the course a Board Meeting of the OSTIV Gliding Research Centre in Varese took place. Under the chairmanship of L. A. de Lange (Netherlands), it was decided to hold a course for meteorologists in October 1965 to be concerned with problems of weather forecasting for soaring. This course in Varese will probably be run by Plinio Rovesti.