

(3) None of the gliders had any shock absorber in their undercarriages, other than the tyre itself. It is suggested that the risk of damage both to the glider and its pilot would be reduced if some shock absorber was built into the undercarriage attachment.

(4) Pilot's safety should receive more consideration. It should be made easier to bale out by providing a grab handle, and ensuring that the pilot could easily remove his feet from underneath the instrument panel. Canopies should be readily jettisonable, and the catch should be foolproof.

(5) The longitudinal stability of some gliders was insufficient, particularly those with all-flying tailplanes without stabilising tabs.

(6) Some aircraft had a small range of permissible pilot weights and did not have suitable ballasting arrangements. The OSTIV airworthiness requirements recommend that the aircraft should be suitable for pilot plus parachute weights of from 55 kg to 110 kg. Preferably this range should be achieved without ballasting.

(7) Some aircraft had very small ground clearance for fuselage and elevator.

(8) It was noted that the wing loading of the gliders submitted was higher than in the past and consequently their stalling, circling and operating speeds were also increased.

This tendency undoubtedly gives improved performance on good days at the price of greater difficulty in staying up in weak lift. The wisdom of increasing speeds still further should be carefully considered.

(9) The flat seating position of the pilot is no longer so unusual; however it should not be too extreme.

(10) Some gliders had poor stalling characteristics with a pronounced wing and nose drop, and no stall warning.

(11) All the gliders were reasonably easy to rig and de-rig, but in some cases they could have been improved by reducing the number of loose parts.

6. Acknowledgments

The Jury would like to record their gratitude to the organisation at South Cerney for making such good arrangements. They would also like to thank the crews of the gliders, tug pilots, airfield marshalls, and all those on whom extra work fell as a result of the early morning flying.

Lorne Welch
for Jury

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Technics and Training

OSTIV Diplomas

The OSTIV Diploma for the technical paper read during the 10th OSTIV Congress at South Cerney, being of particular value to OSTIV, has been awarded to *Dipl. Phys. H. J. Merklein*, DVL Munich, Germany, for presenting "Vergleich der Kreisflugeleistungen einiger Segelflugzeuge auf Grund vermessener Flugpolaren". Honorable mention was given to *Dipl.-Ing. Justyn Sandauer*, Warsaw Technical University, for "New look at the problem of safety in sailplane design", and to *Dipl.-Ing. J. Gedeon*, University of Budapest, for

"Messzahlen und Methode für die Berechnung und Kontrolle der dynamischen Flugeigenschaften von Segelflugzeugen".

The meteorological paper "Satellite wave observations as an aid to wave soaring" was considered to be of particular value to OSTIV, and its author, *Charles V. Lindsay*, U.S. Weather Bureau, USA, has also been awarded the OSTIV Diploma.

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