

OSTIV CONGRESS METEOROLOGICAL SECTION

by CAPTAIN R. A. YOUNG, JR.

One of the most interesting aspects of the World Gliding Championships, aside from the actual competition, is the gathering of the foremost authorities of the scientific world in the fields of meteorology and the design and construction of sailplanes. This is the OSTIV, Organization Scientifique et Technique Internationale du Vol a Voile, or the International Scientific and Technical Organization of the Gliding Movement. This year at St. Yan, France, Dr. Joachim Kuettner, Chairman of the Meteorological Section, and well known for his work in the Sierra Wave Project, distinguished himself in bringing to the Congress a very competent American delegation and in organizing the presentation of a comprehensive group of papers by our own meteorological authorities and those of Czechoslovakia, Argentina, England, France, Germany, Italy, and Yugoslavia.

Paul MacCready, who was also winning the first World Championship for the USA, participated, as did the well known pilots Philip Wills of England and Hanna Reitsch of Germany. It was interesting to see pilots, team members, crews, and gliding enthusiasts as time, duty, or flying activity permitted, gather with the scientific experts and enter into the discussion.

The Meteorological material was presented in three divisions: Jet Stream and Squall Lines, Thermal Convection, and Atmospheric Waves.

In the first section, most of us are aware of the work being done in research on the jet stream. However Dr. M. Tepper, U. S. Weather Bureau, Washington, had some interesting material on Pressure Jump Lines and Atmospheric Gravity Waves and their relation to Squall

Lines. Work is being done on forecasting and the severity of turbulence in squall lines and in the probability of tornadoes by pressure jump warning systems. A paper on Radar Observation of Squall Lines was contributed by Dr. M. Ligda of Texas A. & M. College.

The field of Thermal Convection, as might be expected, was exceptionally well covered. This ranged from studies of the "fine structure" to motion pictures of cumulus cloud development. There was a very instructive movie of model thermals in liquids, the work done under the direction of Dr. R. Scorer of Imperial College, London. His studies show very graphically what is thought to be happening in the air, and the pictures and notes would be most interesting to every sailplane pilot.

Betsy Woodward, now working in England, described some investigations with an instrumented sailplane of cumulus cloud structure. Paul MacCready gave his paper "Research on the Transport of Freezing Nuclei and on Atmospheric Turbulence by Means of a Sailplane."

Sharing with the prominence of "Waves" in the outcome of the Soaring Championship was the wealth of material and study devoted to this subject by the OSTIV. First, theory was covered by papers from England, Germany, and the USA. Dr. Kuettner highlighted the discussion by his valuable observations and excellent motion pictures. Dr. C. Wallington of the English Meteorological Office gave a good explanation of the possibility of waves associated with warm fronts.

For France, Mr. Gerbier told of very original investigations of wave motion in the St. Auban region of the French Alps. Using zero weight

balloons under radio sonde and radar observation they had plotted the wave motion. There were other movies of wave clouds, discussions of the wave forms, and analyses of sailplane flights by representatives of other European Nations.

From the pilot's viewpoint, the most interesting session, on a non-flying day, was that in which the Championship contestants themselves participated. MacCready's paper has already been mentioned. Besides this, Hanna Reitsch gave her account of a sailplane flight under and along a violent squall line in Germany and Philip Wills recounted his interesting altitude flight in waves in the Mt. Cook region of New Zealand.

OSTIV papers will be published in the Swiss Aero Review, as well as a monthly report of OSTIV News. This publication may be secured through Betsy Woodward, Imperial College, London S. W. 7, England.

VIVE LA BELLE FRANCE

(Continued from Page 9)

Maybe Paul's slip-stick stuck. Anyway he played his runs between dry thermals about 25 per cent slower than he does normally. After all dry thermals are nerve wracking. If the next one isn't there you are through for the day.

In working with many American pilots since the days of Chet Decker, Bob Stanley, John Robinson et al. I know of none who combine all the attributes of a champion so much as Paul does. In one sentence it can be summed up--"He has the will to win."

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Editor

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