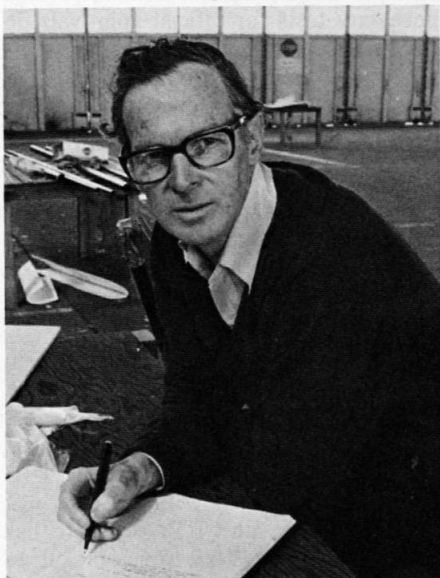


AWARDS presented at the XVIIth OSTIV-Congress

OSTIV-Plaque 1981 with Klemperer Award to Dr. Paul MacCready, USA



Dr. Paul MacCready received from the President of OSTIV, Dr. Manfred E. Reinhardt, at the Opening Ceremony of the XVIIth OSTIV-Congress in Paderborn, Fed. Republic of Germany, 1981 the OSTIV-Plaque 1981 with Klemperer Award with the following citation:

"The OSTIV-Plaque 1981 with Klemperer Award is given to Dr. Paul MacCready for the most noteworthy scientific and/or technical contribution to soaring flight in recent years. Dr. MacCready's notable contributions began many years ago when he devised and developed his concepts of speed flying. Now we are so familiar with the MacCready speed to fly technique that many of us may not remember or may fail to realize what a radical advance this was. Dr. MacCready made a real breakthrough in speed flying and

proved it by winning a World Championships (at St. Yan in 1956). His genius was demonstrated by the simplicity of the theory and the care and logic with which he put it into effect. The technique is still being used today (it has not yet been bettered) and with the improving aerodynamic efficiency of sailplanes it will no doubt be a key factor in breaking free from the restraints of standard thermaling techniques. In recent years he has again combined his ingenuity, logic and infinite care to develop successfully true man-powered flight and solar powered flight. The award winning flights are known throughout the world and the technical achievements have opened new horizons in basic soaring flight. For such achievements, and for the inspiration he has given us on clear thinking applied soaring problems, he fully merits the OSTIV-Plaque and Klemperer Award."

Paul MacCready was born at New Haven, Connecticut, in 1925. During his adolescence he was a serious model airplane enthusiast, with many records, and, at age 16, soloed in powered planes. In World War II, MacCready flew in the U.S. Navy flight training program.

By 1947 he had received his Bachelor of Science in physics at Yale University, and his hobby interest turned from powered aircraft to gliders. He took second place in the National Soaring Contest at Wichita Falls, Texas, at age 21. He then won the 1948, 1949 and 1953 U.S. National Soaring Championships, and pioneered high-altitude wave soaring in the U.S. He represented the U.S. at contests in Europe four times, becoming International Champion at a meet in France in 1956, the first Ame-

rican to achieve this goal.

During the decade 1946-1956, MacCready worked on sailplane development, soaring techniques, meteorology and worked out the MacCready Speed Ring, which is used worldwide by glider pilots. Concurrently, he was earning his master's degree in physics at California Institute of Technology in 1948, and his Ph. D. in aeronautics from the same institution in 1952. He founded Meteorology Research Inc. which developed into a leading firm in research on weather modification and atmospheric science. He pioneered the use of instrumented small aircraft to study storm interiors, and performed many of the piloting duties.

In 1971 MacCready started Aero Vironment Inc., a diversified company providing services and products in the field of alternative energy, the environment, and aviation. The company developed air-drag reduction devices, now used internationally, for fuel conservation in the trucking industry, and has also developed quiet, slow speed, piloted aircraft.

Dr. MacCready became internationally known in 1977 as the 'Father of human-powered flight' when his *Gossamer Condor* made the first sustained, controlled flight by a heavier-than-air craft powered solely by its pilot's muscles. For the feat he received the \$ 95.000.- Henry Kremer Prize.

Two years later his team created the *Gossamer Albatross*, a 55-pound craft with a 96-foot wingspan that achieved the first, and only, human-powered flight across the English Channel.

Dr. MacCready's aviation achievements have brought him innumerable recent honors.

OSTIV-Prize 1981 to Akademische Fliegergruppe Braunschweig



The Akademische Fliegergruppe Braunschweig received on Nomination of the OSTIV-Sailplane Development Panel from the President of OSTIV at the Opening Ceremony of the XVIIth OSTIV-Congress at Paderborn the OSTIV-Prize 1981 with the following citation:

"The OSTIV PRIZE is awarded to the AKADEMISCHE FLIEGERGRUPPE BRAUNSCHWEIG for remarkable scientific and technical activity over many years, including the realization of several advanced sailplane prototypes and, in particular, the design and construction of the SB-11. The outstanding characteristics

of this sailplane were substantiated by the performance of its pilot, winning first place in the '15 meter Class' at the 1978 World Gliding Championships in Chateauroux, France. The exceptional technical features of this sailplane, including a clever mechanical arrangement of chord-extending Wortmann flaps having camberchanging inserts, are cleverly illustrated in the paper 'Auslegung, Konstruktion und Bau der SB-11' presented at the XVI OSTIV-Congress, France 1978."

The Akaflieg Braunschweig has been founded in 1922 as 'Flugwissenschaftliche

Vereinigung der Technischen Hochschule Braunschweig'. In those days the first 1 hour-flights with a new generation of sailplanes were demonstrated at the Rhön by the students of Hannover and Darmstadt, Aachen and Berlin, who all tried to find the optimal design and construction for gliders to achieve best performance. Other Akafliegs have been established also in the twenties contributing more or less to the technical-scientific development of soaring.

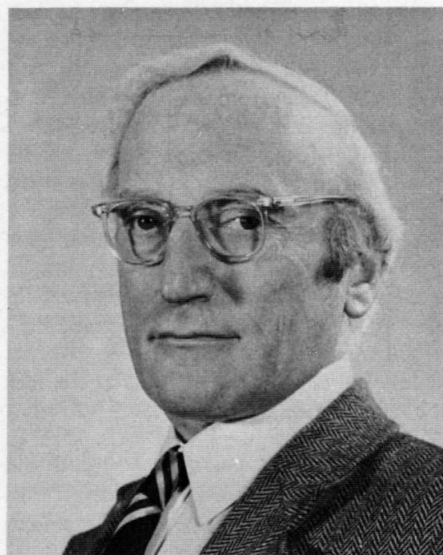
Nearly all Akafliegs were involved after World War II in the introduction of the fiber glass technique and in the applica-

tion of laminar airfoils as well as in developing new design ideas in the general layout and construction of gliders. The Akaflieg Braunschweig contributed the remarkable new concept of the 'Variable Geometry 15 m-Sailplane SB-11' with the chordwise adjustable Wortmann flaps.

It is the hope, that recent study restrictions, financial problems and difficult but necessary tests for official approvals do not handicap the activities of the students too much and that they can continue their creative activities with unbroken abundance of ideas and continuing willingness devoted to glider techniques and sport.

OSTIV Diplomas

Two OSTIV Diplomas have been awarded for papers, presented at the XVIII OSTIV-Congress at Paderborn, one for the best technical and one for the best meteorological paper being of particular value to OSTIV.



Frank G. Irving has received the OSTIV-Diploma for the *TECHNICAL* paper with the following citation:

"The OSTIV-Diploma is awarded to Frank G. Irving for his paper

'The Optimum Centre of Gravity Position for Minimum Overall Energy Loss'.

The paper reports an investigation into the optimum C.G. position from the point of view of induced drag. It shows that, for a typical modern sailplane, when proper account is taken of wing - tailplane interference and of both glide and climb phases of the flight, the optimum C.G. position is somewhat forward of the aft limit. The investigation therefore dispenses of the myth that for best performance the C.G. should be as far as possible; it thus has an important bearing not only on performance but on safety."

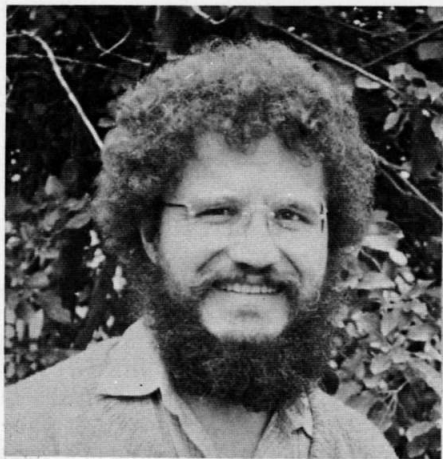
Frank Irving born in 1925, was educated at the University of Liverpool and at Imperial College, London. He gained the qualifications of M. Eng. and D.I.C. and was

elected C. Eng. and F.R.Ae.S. He has spent his working life at Imperial College in the Aeronautics Department where he is now Senior Lecturer.

He has been gliding since 1946 and possesses a Gold Badge and one Diamond; he joined BGA No. 1 Test Group and has flown 68 types of sailplanes, in the case of many of them for the purpose of evaluation as part of the approval for British certification.

He is a member of the BGA Executive Committee, BGA Technical Committee and the OSTIV Sailplane Development Panel, and has written numerous papers for these committees and for OSTIV-Congresses.

One of the few British holders of the Paul Tissandier-Diploma, he was awarded the Royal Aero Club's Silver Medal in 1971 after chairing the second of the above-mentioned committees for more than 20 years.



Dr. Jörg M. Hacker has received the OSTIV-Diploma for the *METEOROLOGICAL* paper with the following citation:

"The OSTIV-Diploma is awarded to Dr. Jörg M. Hacker for his paper

'Preliminary results of the Alpine Experiment DISKUS concerning the structure of convection over mountainous terrain'. During August 1980 the Alpine Experiment DISKUS took place in the region between Davos and St. Moritz, Switzerland. Three instrumented motorgliders of the DFVLR Institute of Atmospheric Physics were used to make meteorological measurements on flights across four parallel mountain ridges and in the valleys between them. Dr. Hacker took part in the Experiment and carried out an analysis and meteorological interpretation of the large amount of data that was recorded. By careful selection and processing of this data he discerned significant fea-

tures of the temperature and flow patterns, cells or bands correlated with increased turbulence and close to the slopes. He not only analyzed these features, he also presented them to the OSTIV-Congress in such a clear and succinct way that his audience were easily able to share his experience and new knowledge of these interesting aspects of airflow across mountain ridges. This paper and presentation typify the aims and spirit of OSTIV."

Jörg Hacker was born in 1949, studied at the University Bonn since 1973 and received his 'Diplom-Meteorologe' there at 1977. Beside his work as an assistant professor at the same institute he worked on a thesis concerning large scale energy