



ORGANISATION SCIENTIFIQUE  
ET TECHNIQUE INTERNATIONALE DU VOL 'A VOILE  
- O.S.T.I.V. -  
INTERNATIONAL SCIENTIFIC AND TECHNICAL  
ORGANISATION FOR GLIDING  
(Affiliated Member of the Fédération Aéronautique Internationale,  
F.A.I.)

President: L.M.M. Boermans

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REPORT ON THE ACTIVITIES OF THE INTERNATIONAL SCIENTIFIC  
AND TECHNICAL ORGANISATION FOR SOARING FLIGHT (OSTIV)  
for the period October 2009 to October 2010.  
Loek M.M. Boermans, President of OSTIV.

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### XXX OSTIV Congress

The main event of the reporting period was the **XXX OSTIV Congress**, held from 28 Juli to 4 August 2010 in Szeged, Hungary, at the site of the 31<sup>th</sup> World Gliding Championships 2010.

At the **Opening Ceremony** of the Congress, in the briefing hall of the airfield, the following Awards were presented:

The **OSTIV Prize and Morelli Award** was awarded to Prof. A. Puck for “his significant contributions to the early development of fibreglass-reinforced-plastic sailplanes, especially covering stress and strength substantiation and fatigue”.

The **OSTIV Special Prize and Morelli award** was awarded to O. Liechti “for leading the team of experts and making significant contributions to the World Meteorological Organization / OSTIV publication *Weather Forecasting for Soaring Flight*”.

The **Mertens Award** for the best student contribution at the congress was given to R. Baardman for his paper “Cumulus Humilis: Wireless mesh-networking for gliders”.

The **OSTIV Diploma** for the best technical paper was given to L. Popelka, L. Zeleny, D. Simurda, M. Matejka for their paper presented at the XXIX OSTIV Congress in Lüsse, Germany 2008, titled “Wing-Body Interaction: Numerical Simulation, Wind-Tunnel and In-Flight Testing”.

The **OSTIV Diploma** for the best meteorological paper was given to J. Dummann for his paper presented at the XXIX OSTIV Congress in Lüsse, Germany, 2008, titled “A Report on Glider Pilot Activities to Document Lee Wave-Events in Northern Germany and their Aims”.

The keynote lecture titled „ Aerodynamic Developments for Sailplanes at Delft University of Technology” was presented by Loek Boermans, Faculty of Aerospace Engineering of the TU Delft, The Netherlands.

During the next 5 days of the **Congress**, 25 papers of good quality were presented on aerodynamics, flight mechanics, dynamic soaring, winch launches, design and development,

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materials, fatigue, instruments, airworthiness requirements, rescue systems, convection, mountain waves and meteorological predictions.

After review they will be published in the forthcoming quarterly issues of OSTIV's International Journal of **Technical Soaring**.

At the **General Conference**, on the last day of the Congress, the Board was re-elected.

The Board of OSTIV announced two new monetary Awards: the Morelli Award and the Mertens Award. The Morelli Award, sponsored by Morelli's son Henk-Peter in memory of his father Prof. Piero Morelli, is connected to the OSTIV Prize and Special Prize, like the (monetary) Klemperer Award is connected to the OSTIV Plaque. The Mertens Award is made available by the family Mertens in memory of Prof. Josef Mertens.

At the **Closing Dinner** the President of OSTIV expressed thanks to the Director of the World Gliding Championships Andras Zeno Gyongyosi for the support, to the OSTIV's Local Representative Imre Bano for the organisation of the excursion, and to Britta Schlenker for her indispensable help in organising the Congress to run smoothly.

For the first time OSTIV, in cooperation with the Soaring Society of America (SSA), organized an **OSTIV Speaker Track** at the SSA Convention, held from 28 to 30 January 2010 in Little Rock, Arkansas. During 3 days, 17 lectures were presented on a variety of technical, operational and meteorological subjects, and 2 panel discussions were held on safety and on OSTIV's activities.

### **Panel meetings**

The annual meeting in **2009** of the **Sailplane Development Panel (SDP)**, chaired by Helmut Fendt, took place 15<sup>th</sup> and 16<sup>th</sup> October 2009 at Poppenhausen, near the "Wasserkuppe", Germany. The meeting at the "hill of the gliders" was attended by 25 participants, including several new SDP members, supplying profound additional expertise to SDP's competence.

On request of the IGC President the SDP paid special attention to proposals for competition rules to enhance flight safety. SDP member Eric de Boer attended and reported of the TSP meeting in Terlet where the same item was on the agenda. .

Several technical topics of the SDP meeting in Poppenhausen were enriched by presentations on the following subjects: an overview of EASA's work and the cooperation with SDP; an update on transponder/ADS-B issues; information on crashworthiness tests of a glider cockpit at the Politecnico di Milano; introduction of the "side string"; work on spine shell and seating comfort; and work on biomechanics at the university of Kraków, Poland

After the two days meeting the SDP visited the "Segelflugzeugmuseum" at the Wasserkuppe and the Schleicher Segelflugzeugbau company in Poppenhausen.

The annual meeting in **2010** of the **Sailplane Development Panel (SDP)** took place the two days before the XXX OSTIV Congress, on 26 and 27 July 2010 in Szeged, Hungary. The SDP extensively discussed and finalized the document "Safety Pays" with proposals for competition rules to enhance flight safety. The document will be presented at the next IGC meeting, March 2011 in Lausanne. Other items on the agenda were: request to EASA on winch launch, transponder/ADS-B issues, the position of the SDP with respect to the new 13.5m Class, fire protection in powered gliders and motorglider propulsion recording.

The **Training and Safety Panel (TSP)**, chaired by Dipl.-Ing. I. Odaker, had a Flying Training Seminar from 17 to 20 August 2009, followed by its biannual meeting on 21 and 22 August 2009, both at Terlet, the Gliding Center of the Netherlands, as reported last year.

The **next meetings** of the Sailplane Development Panel and Training and Safety Panel, both separately and joined, will be 19 and 20 September 2011 in Prague, Czech Republic.

The **Meteorological Panel (MP)**, chaired by Dr. Hermann Trimmel, had its annual meeting from 25 to 27 September 2009 in Pfaffstaetten near Vienna, Austria.

After the previous meeting, the review process of the successor of the “Handbook of Meteorological Forecasting for Soaring Flight”, published by World Meteorological Organization (WMO), has been finished and in August 2009 the WMO published Technical Note No 203 titled “Weather forecasting for soaring flight”. This publication in colour reflects the progress that has been achieved in numerical weather prediction and in the new interfaces between the predicted weather and the pilot to support pre-flight decision-making.

The upcoming European regulations for pilot licences are currently in discussion. To avoid an unnecessary load on meteorological themes for glider pilots, proposals on meteorological education will be suggested to EASA by a working group chaired by Ghislaine Facon.

Other topics discussed at the meeting were: TopTask, the interactive web application embedded in pc-met; the use of meteorological and glider-flight recorded data in order to improve TopTask; convective structures seen by modern weather radar systems; climb rate – altitude correlation and identification of waves from analysis of IGC files; the forecast of mountain waves; the role of climate change on the organisation of thermals.

**Next meeting** of the Meteorological Panel will be in 2011, the place and date have to be decided yet.