



PROGRAM

XXXII OSTIV CONGRESS

Leszno, Poland
30 July - 6 August 2014

Wednesday 30 July 2014

Opening Ceremony of the XXXII OSTIV Congress in the Briefing Hall at 18.00 hrs.

- Welcome by OSTIV President Prof. Ir. L.M.M. Boermans
- Addresses by
 - Włodzimierz Skalik, President of Polish Aero Club
 - Dariusz Cisek, Contest Director
 - Peter Ryder, President of the Jury
- OSTIV Award Ceremony
- Keynote lecture:
 - Around the World with a Solar Powered Aircraft**
 - presented by
 - Hannes Ross** (member of the Solar Impulse Team)
- Reception offered by the organizer of the World Gliding Championships 2014

TECHNICAL SESSIONS

Thursday 31 July 2014

OSTIV-Lectures at room 101 (first floor) of the Central Gliding School

Afternoon Session

- 14.00 Numerical investigation into the performance of NACA inlets for sailplane applications.
J. Bosman; School of Mechanical Engineering of the North-West University, Potchefstroom, South Africa.
- 14.45 Wind-tunnel validation of the gradual lift curve slope at thermal flap settings of some new generation flapped airfoils.
L. Popelka; Institute of Thermomechanics, Academy of Sciences of the Czech Republic, and HpH, Ltd., Kutna Hora, Czech Republic.
- 15.30 Coffee break**
- 15.45 Highly extensible skin of a shape-variable wing leading edge of a high performance sailplane.
M. Weinzierl; Akaflieg München e.V., München, Germany.
- 16.30 Wind tunnel study of airbrake aerodynamics.
Z. Patek, J. Cervinka, M. Lahuta; VZLU Aerospace Research and Test Establishment, Aerodynamics, Czech Republic.
- 17.15 Exploring the possibility of Autonomous Gliders in the Atmosphere of Titan.
R.P. LeBeau¹, C.Coletti¹, G. Bramesfield²;
1. Parks College, Saint Louis University, Saint Louis, USA.
2. Ryerson University, Toronto, Canada.

Friday 1 August 2014

OSTIV-Lectures at room 101 (first floor) of the Central Gliding School

Afternoon Session

- 14.00 The influence of target function selection on optimization of winglets for the glider SB14, using and developing a lifting-line based program-chain. .
K. Rohde Brandenburger, J. Himmisch; Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Institut für Aerodynamik und Strömungstechnik, Braunschweig, Germany.
- 14.45 Turbulators in practice.
L. Boermans; Faculty of Aerospace Engineering, TU Delft, The Netherlands.
- 15.30 Coffee break**
- 15.45 Analysis of Unsteady Inviscid Flow Effects on a Natural Laminar Airfoil in Flight through Turbulence.
T.W. Martins, A. Reeh, C. Tropea; Institute of Fluid Mechanics and Aerodynamics (SLA), TU Darmstadt, Germany.
- 16.30 CTA measurements of longitudinal velocity fluctuation and its spectra in thermal convection atmosphere and lee-wave condition using sailplane in-flight experiment.
L. Popelka, M.Marejka, J. Zeleny, V. Uruba; Institute of Thermomechanics, Academy of Sciences of the Czech Republic.
- 17.15 Proposal for investigation into the fatigue life of the JS1 sailplane.
A. Jonker, L. van der Walt; School of Mechanical Engineering of the North-West University, Potchefstroom, South Africa.

OPEN SESSION

Time: At an evening to be announced, for everybody to attend.

Location: Briefing Hall

Speaker: **R. Heise**, Director of the Mountain Wave Project.

Subject: **The Mountain Wave Project – Himalaya Research Expedition.**

Challenges, objectives and the first scientific results of this outstanding airborne measurement campaign in Nepal.

Saturday 2 August 2014

OSTIV-Lectures at room 101 (first floor) of the Central Gliding School

Afternoon Session

- 14.00 A game theory analysis of sailplane racing.
N.J. Grasser; The Pennsylvania State University, Aerospace Engineering, State College, USA.
- 14.45 Improvement of sailplane crashworthiness through keel beams with silicone cores.
U. Schuster, K. Wolf; Technische Universität Dresden, Institute of Aerospace Engineering, Chair of Aircraft Engineering, Dresden, Germany.
- 15.30 **Coffee break**
- 15.45 A composite manufacturing process for producing Class A finishing components.
A. Jonker, Z. Lombaard; School of Mechanical Engineering of the North-West University, Potchefstroom, South Africa.
- 16.30 Airborne proximity warning device.
L.R. Yusupov; Private, Russian Federation.
- 17.15 Design and Fabrication of Micro Radio-Control Ornithopters, Helicopters and Fixed-Wing aircraft.
B. Pipenberg; The Pennsylvania State University, Aerospace Engineering, State College, USA.

Sunday 3 August 2014

Excursion

Visit to Breslau/Wroclaw, guided tour, boat trip on the Oder, dinner, visit to Panorama painting, Baroque Church and old University.

(for those who registered at the OSTIV-office)

Time schedule will be announced.

METEOROLOGICAL SESSIONS

Monday 4 August 2014

OSTIV-Lectures at room 101 (first floor) of the Central Gliding School

Afternoon Session

- 14.00 Comparison of three model results for nowcasting in a convective boundary layer.
N. Şen, A.C. Moral, B. Efe, A. Lauber, O. Mertol, Z. Aslan; Istanbul Technical University Istanbul, Turkey; Karlsruhe Institute of Technology, Karlsruhe, Germany; Istanbul Aydın University, Istanbul, Turkey.
- 14.45 A free, on-line soaring weather forecasting system for world-wide use.
E. Hindman; Meteorology and Oceanography, Earth and Atmospheric Science Department, The City College of New York, USA.
- 15.30 Coffee break**
- 15.45 Analysis of mountain wave 3D windfields in the Andes derived from high-altitude sailplane flights.
R. Millane¹, N. Zang¹, E. Enevoldson², J. Murray²
1. Computational Imaging Group, Department of Electrical and Computer Engineering University of Canterbury, Private Bag 4800, Christchurch, New Zealand.
2. NASA Dryden Flight Research Center, Edwards, California, USA.

Tuesday 5 August 2014

OSTIV-Lectures at room 101 (first floor) of the Central Gliding School

Afternoon Session

- 14.00 A case study of the wet microburst on 2 August 2011 at Esenboga International Airport (LTAC).
E.T. Özdemir^{1,2}, A. Deniz¹;
1. Istanbul Technical University, Department of Meteorology, Istanbul, Turkey.
2. Istanbul Technical University, Eurasia Institute of Earth Sciences, Istanbul, Turkey.
- 14.45 Detection of overshooting cloud tops (Ots) and their relationship to severe weather over Europe.
H. Baltaci, T. Kindap; Istanbul Technical University, Eurasia Institute of Earth Sciences, Maslak 34469, Istanbul, Turkey.
- 15.30 Coffee break**
- 15.45 The effects of climate change on agricultural production under high evaporation and their role on aviation and gliding in Southeastern Anatolia region of Turkey.
F. Dökmen¹, M. Kuzucu²
1. Kocaeli University, Food & Agricultural Vocational School, Kocaeli, Turkey.
2. Pistachio Research Station Directorate, Gaziantep, Turkey.
- 16.30 The formation of urban heat island in Eskişehir.
A. Tokgözlü¹, B. Gönençgil², E. Özkan³, K. Uysal³, E. Yasdiman³
1. Süleyman Demirel University, Faculty of Art and Sciences, Isparta, Turkey.
2. Istanbul University, Faculty of Literature, Istanbul, Turkey.
3. Turkish Aeronautical Association, İnönü Training Centre, Gliding School, Eskişehir, Turkey.

Wednesday 6 August 2014

OSTIV-Lectures at room 101 (first floor) of the Central Gliding School

Afternoon Session

- 14.00 Is the Common Conceptual Model for the Kinematics of Atmospheric Gravity Waves inadequate?
J. Dumann, Private, Germany.
- 14.45 Analysis of the forest health state based on multispectral images acquired by Unmanned Aerial Vehicle.
M. Kacprzak, Institute of Aviation in Poland.
- 15.30 Soaring Flights on Thermal Waves.
C. Lindemann, Freie Universität Berlin, Germany.

19.00 Closing Dinner at the Markiz Restaurant

ul. Chociszewskiego 5, Leszno.

(for those who registered at the OSTIV-office)

Transport by own car.