

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL ACADEMY OF SCIENCES OF UKRAINE
NATIONAL AVIATION UNIVERSITY**

**HONORING 100 YEARS OF THE FIRST
POWERED FLIGHT**

**70 YEARS OF THE NATIONAL AVIATION
UNIVERSITY**



**PROGRAM
OF THE WORLD CONGRESS**

"Aviation in the XXI-st Century"

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**September 14-16, 2003
Kyiv, Ukraine**

DEAR COLLEAGUES!



You are welcome to take part in the World Congress "Aviation in the XXI-st Century", which will be held at the National Aviation University, Kyiv, Ukraine on September 14-16, 2003.

Chairman of the International Programming Committee
Prof. Vitaliy Babak, Rector
of the National Aviation University.

This Congress is organized by the National Aviation University (Kyiv) in cooperation with the International Civil Aviation Organization (ICAO), National Academy of Sciences of Ukraine, Ministry of Education and Science of Ukraine, Ministry of Transport of Ukraine, EUROCONTROL, CANSO, SNECMA, University of Cordoba (Spain), Dresden Technical University (Germany), Hankuk Aviation University (South Korea), UkSATSE and others.

The Congress objective is to analyze global trends in aviation and to discuss practical, experimental and theoretical achievements in the field. The language of the Congress is English.

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**PROGRAM
OF THE WORLD CONGRESS**

**“AVIATION IN
THE XXI-ST CENTURY”**

SEPTEMBER 14-16, 2003

KYIV 2003

PROGRAMMING COMMITTEE

V. Babak	Chairman, National Aviation University, Ukraine
V. Kremen'	Minister of Education and Science, Ukraine
B. Paton	National Academy of Sciences, Ukraine
V. Kharchenko	National Aviation University, Ukraine
T. Anodina	International Aviation Committee, Russia
J. Ackermann	Institute of Robotics and Mechatronics, Germany
P. Balabuev	ASTC ANTONOV, Ukraine
W. Batteau	Wayne State University, USA
Yu. Cherednichenko	UkSATSE
D. Collin	SNECMA MOTEURS, France
A. ter Kuile	CANSO
W. Donaldson	United States Air Force, European Office of Aerospace research and Development
M. Elamiri	ICAO
M. Fox	ICAO
G. Gurtovoy	"Aerosvit" Airline, Ukraine
V. Grinchenko	National Academy of Sciences, Ukraine

S. Koniukhov	State Enterprise “Production Association Southern Machine-Building Plant named after A.M.Makarov”, Ukraine
P. Lamy	ICAO
B.E. Launder	University of Manchester, Institute of Science and Technology, United Kingdom
L.P.Lighthart	Tu-Delft, The Netherlands
M.S.Maurice	Air Force Research Laboratory International Office, USA
V. Potemskiy	Ukraine International Airlines, Ukraine
F. Schneider	Munich Technical University, Germany
M. Shauk	Baylor University, USA
L. Shelley	Transnational Crime and Corruption Center, USA
A. Shpack	National Academy of Sciences, Ukraine
N. Smirnov	Moscow State Technical University of Civil Aviation, Russia
Soon Kil Hong	Hankuk Aviation University, South Korea
G. Stadler	EUROCONTROL
V. Troshchenko	National Academy of Sciences, Ukraine
E. D. Vilches	University of Cordoba, Spain
G. Zanin	Baylor University, USA

SCHEDULE OF THE WORLD CONGRESS "AVIATION IN THE XXI CENTURY"

14.09.2003

	Meeting and hotel accommodation
	Registration of participants

15.09.2003

8.00-9.30	Registration of participants
10.00-10.30	Greetings
10.30-13.00	Plenary session
13.00-14.30	Lunch
14.30-15.30	NAU facilities visiting
15.30	Kyiv sightseeing

16.09.2003

10.00-13.00	Symposia Sessions
13.00-15.00	Lunch
15.00-17.00	Symposia Sessions
17.00	Meetings and discussions
19.00	Official dinner

17.09.2003

9.00	Kyiv-Pechersk Lavra, Myhaylivsky Cathedral
12.30	Pirogovo- museum
15.00	Lunch in the museum's restaurant
17.30	Souvenirs shops
19.30-21.30	The Dnieper river voyage (restaurant available)

PLENARY SESSION

Greetings 10.00-10.30

1. **Vitaliy P.Babak**, National Aviation University, Ukraine
2. **Vasyl' G. Kremen'**, Ministry of Education and Science of Ukraine
3. **Borys Ye. Paton**, National Academy of Sciences of Ukraine
4. **Soon Kil Hong**, Hankuk Aviation University, South Korea
5. **Eugenio Dominguez Vilches**, The University of Cordoba, Spain

10.30-13.00

1. STRATEGY OF INNOVATION LEADERSHIP IN AIRCRAFT PRODUCTION
Petro V. Balabuyev, Antonov Aeronautical Scientific/Technical Complex, Ukraine
2. PRIORITIES OF NATIONAL SPACE PROGRAM OF UKRAINE
Valeriy G.Komarov, National Space Agency of Ukraine
3. MAIN TRENDS IN RESEARCH ACTIVITIES AT THE NATIONAL AVIATION UNIVERSITY
Volodimir P.Kharchenko, NAU, Ukraine
4. EUROPEAN UNION PROGRAMMES ABOUT AIRCRAFT DEVELOPMENT PROJECTS IN 6 RTD FRAMEWORKS
Per Kruppa, Belgium
5. INTERNATIONAL OPPORTUNITIES WITH THE AIR FORCE RESEARCH LABORATORY
Mark S. Maurice, Air Force Research Laboratory, U.S.A.]

SYMPOSIUM 1
**HISTORICAL ASPECTS OF WORLD AVIATION
DEVELOPMENT**

Co-chairmen:

V. Grebennikov, National Aviation University, Ukraine

E. Vilches, Rector, the University of Cordoba, Spain

Secretary:

Yu. Smolnikov, National Aviation University, Ukraine

16 September, 10-00, room 11.315

1. Beginning of civil aviation era in Ukraine.

V.Grebennikov, National Aviation University, Ukraine

2. The attractive features of Antonov's aircraft.

***Yu.Kurlin, Aeronautical Scientific/Technical Complex
"Antonov", Ukraine***

3. Lend-lease aircraft deliveries in 1941-1945 and their influence on the development of the Soviet aircraft industry.

V.Romanenko, Ukrainian State Aviation Museum, Ukraine

4. The role of mathematics in the development of aviation science.

V. Movchan, V.Bobkov, National Aviation University, Ukraine

5. History and role of trade union aviation organization in Ukraine.

I.Zvinnik, Trade Union of Aviation, Ukraine

16 September, 15-00, room 11.315

6. History of National Aviation University in life stories of its alumni.

L.Tupchienko, National Aviation University, Ukraine

7. O.K.Antonov's creative heritage as aircraft designer.

*V.Anisenko, Aeronautical Scientific/Technical Complex
"Antonov", Ukraine*

*L.S.Bratitsa, S. Tkachenko, National Aviation University,
Ukraine*

*L.I.Bratitsa, Open International University of Person
Development "Ukraine"*

8. Air reconnaissance in the Second World War (the actions of air reconnaissance of the belligerent parties at the Southern segment of the Soviet-German front, 1941-1943).

*N. Tepliakov, V. Sokolov, E. Dorofey, The Centre of Aerospace
Researches of National Academy of Sciences of Ukraine*

SYMPOSIUM 2

SAFETY IN CIVIL AVIATION

Co-chairmen:

E.Kessler, NLR Dutch National Aerospace Laboratory, Holland

V.Nikishov, Institute of Hydromechanics of National Academy of Science of Ukraine, Ukraine

Secretary:

V. Kabanyachyi, National Aviation University, Ukraine

16 September, 10-00, ICAO Centre

1. Technical diagnostics of materials and elements of aviation designs by the method of acoustic emission.

V.Babak, S.Filonenko, National Aviation University, Ukraine

2. ANTONOV ASTC'S development of the aerospace systems on the basis of AN-124 and AN-225 aircrafts.

***P.Balabuyev, O.Bogdanov, A.Vovnyanko, I.I. Serdiuk,
Antonov Aeronautical Scientific/Technical Complex, Ukraine***

3. AN-70 STOL aircraft characteristics at high angels of attack.

***P.Balabuyev, O.Bogdanov, V.Kudryavtsev, V.Pustovoytov,
Antonov Aeronautical Scientific/Technical Complex, Ukraine***

4. A study on the responsibility and cost assignment of security tasks at international airport.

Kwang Eui Yoo, Hankuk Aviation University, Korea

5. Air transport from privilege to commodity.

***E. Kessler, NLR Dutch National Aerospace Laboratory,
the Netherlands***

6. Nutrition and the flight safety.

***Jose Manuel Roldan Nogueras, The University of Cordoba,
Spain***

7. Aviation's cultural and technological networks and peripheries.

***G.Suslova, National Aviation University, Ukraine
A. Batteau, Institute for Information Technology and Culture,
Wayne State University, USA***

8. Aging of aircraft and flight safety.

S. Ishenko, A. Davidov, National Aviation University, Ukraine

16 September, 15-00, ICAO Centre

9. Some aspects of flight safety under conditions of penetrating acoustic radiation.

***V. Koshliakov, Institute of Mathematics of National Academy of
Sciences of Ukraine,
V.Karachun, V. Melnik, V. Saverchenko, National Technical
University of Ukraine "Kyiv Polytechnic Institute", Ukraine
V. Balanin, National Aviation University, Ukraine***

10. Mathematical modeling of shear flows behind the obstacles and methods of their control.

Ye.Shkvar, National Aviation University, Ukraine

11. An influence of macromolecular additives on vortical pattern of near-wall flow.

***V.Gorban, I.Gorban, A. Makarenkov, V.Nikishov,
Institute of Hydromechanics of National Academy of Sciences
of Ukraine***

12. Heat transfer and hydrodynamics of rotating flows in elements of power machinery.

***I. Shevchuk, Institute of Engineering Thermophysics of
National Academy of Sciences of Ukraine***

13. Coherent vortical structures control in flat and curvilinear parietal flows.

***V. Babenko, V. Turic, Institute of Hydromechanics of National
Academy of Sciences of Ukraine***

14. Optimal technology of force cueing in flight simulators.

***M. Lahtynenko, Institute of Mechanics of the National
Academy of Sciences of Ukraine***

V. Kabanyachyi, National Aviation University, Ukraine

15. Aerodynamic assembling of wing of modern regional aircraft.

***M.Bytscko, V.Kudryavtsev, Yu.Yastrebov, ANTONOV Design
Bureau, Ukraine***

16. Modelling of technical and economical aspects of flight safety.

***V.Kasyanov, A.Goncharenko, National Aviation University,
Ukraine***

17. The method of boundary integral equations in nonlinear problems of aerohydrodynamics.

***Yu.Krashanytsia, O.B.Dushin, F.S.Mohamed, National
Aerospace University (Kharkiv Aviation Institute); Ukraine***

SYMPOSIUM 3

**AIRCRAFT AND ENGINE DESIGN, MANUFACTURING AND
OPERATION**

Co-chairmen:

A.Inozemtsev, “Perm Engines”, Russia

S.Dmitriev, National Aviation University, Ukraine

Secretary:

E.Sapeliuk, National Aviation University, Ukraine

16 September, 10-00, room 11.220

1. Maintenance program policy for aircraft structure and MSG3 procedure.

Muge Armatli Kayrak, Anadolu University, Turkey

2. Identification technique of aircraft gas turbine engine health.

A.Pashayev, D.Askerov, R.Sadiqov, Azerbaijan

3. Generic engine monitoring unit for gas turbine powered aircraft.

G. Bebutov, Tupolev Psc., Russia

P. Rybarik, Vibro-Meter S.A., Switzerland

4. Engine vibration and condition monitoring systems in world aviation.

P. Rybarik, Vibro-Meter S.A., Switzerland

5. New computer program for aircraft propulsion performance estimation.

O.Turan, T.Hikmet Karakoc, Anadolu University, Turkey

6. A novel approach to structural life estimation and fleet management of aging fighter aircraft.

***T.Hikmet Karakoc, Bulent Candan, Suat Canarslan,
Anadolu University, Turkey***

7. Civil aircraft engines development trends.

A.Inozemtsev, "Perm Engines", Russia

8. Problems of the IL-76 aircraft modernization by means of new PS-90 engines installation.

A.Inozemtsev, A.Levin, "Perm Engines", Russia

9. On strength assessment of carbon fiber laminates at high temperatures.

A.Bogomolov, V. Naumenko, G. Pisarenko, Institute of Strength Problems, Ukraine

10. A new approach to the assessment of cracks in thin-sheet materials of aircraft fuselage.

V.Naumenko, G.Volkov, A.Bogomolov, S.Tereschenko, G. Pisarenko, Institute of Strength Problems, Ukraine

11. Development of the control automated system of operation and service life prolongation of the D-30 KP engines on airplanes IL-76.

M.Kulyk, V.Povorozniuk, A.Tarasenko, National Aviation University, Ukraine

V.Chernov, "Aircraft engine", Russia

16 September, 15-00, room 11.220

12. Aircraft GTE diagnostics at the basis of the intermediate models.

S.Dmitriev, A.Kucher, V.Stepanenko, National Aviation University, Ukraine

13. Risk assesment in the aerospace systems.

L.Zhuravlova, National Aviation University, Ukraine

14. Aircraft maintenance as a risk factor.

L.Zhuravlova, V.Shapoval, National Aviation University, Ukraine

15. Development of the D-30 KP engine thrust control system for ground tests.

S.Dmitriev, S.Sakhno, V.Stepanenko, National Aviation University, Ukraine

16. New approaches to the aircraft design at the base of life cycle concept.

V. Movchan, I.Zhuravlova, A.Los, National Aviation University, Ukraine

17. Methodology of the GTE technical condition estimation based on of flight operation information.

***M.Kulyk, A.Kucher, National Aviation University, Ukraine
V.Chernov, "Aircraft engine", Russia***

18. Improvement of the onboard data registration system of the IL-76 aircraft for the D-30 KP engine diagnostics.

V.Povorozniuk, A.Tamargazin, A.Yakuschenko, National Aviation University, Ukraine

19. Experience of the operation support and lifetime extension of the D-30 KPI engines with the use of "Control D-30 KPI".

S.Sakhno, A.Tarassenko, O.Tchumak, National Aviation University, Ukraine

20. Hydraulic pressure-control valve stability.

V.Boutko, National Aviation University, Ukraine

21. Thermoelasticity three-dimensional contact problem taking into consideration heat release.

V.Astanin, N.Borodachev, National Aviation University, Ukraine

SYMPOSIUM 4
AIRPORT OPERATION

Co-Chairmen:

D. Collin, Snecma Moteurs, France

S.Ivanov, National Aviation University, Ukraine

Secretary:

S.Boichenko, National Aviation University, Ukraine

SECTION 1
Aviation Fuels and Alternative Energy Sources

Co-Chairmen:

O.Aksionov , National Aviation University, Ukraine

G.Zanin, Baylor University, USA

Secretary:

S. Boichenko, National Aviation University, Ukraine

16 September, 10-00, room 1.209

1. Ethanol as a fuel for general aviation aircraft.

G.Zanin, M.Shauck, Baylor University, USA

2. The role of renewable fuels in aviation.

M.Shauck, Baylor University, USA

3. Modern trends in motor fuels production.

V.Burlaka, Institute of Economy, National Academy of Sciences, Ukraine

S.Ivanov, S.Boichenko, National Aviation University, Ukraine

4. Alternative biofuel from rape oil derivatives.

V.Semenov, National Technical University "Kharkiv Polytechnical Institute", Ukraine

5. Resource-energy-conservation during transportation and storage of motor fuel.

*A.Stepanov, Institute Bioorganic and Petrochemistry,
National Academy of Sciences, Ukraine*

S.Boichenko, S.Ivanov, National Aviation University, Ukraine

6. Tribotechnologies of non-adhesion friction under condition of boundary lubrication.

*O.Aksionov, O. Stelmah, R.Kostunik, O.Sidorenko, T.Ternova,
National Aviation University, Ukraine*

SECTION II

Airport Construction And Design

Co-Chairmen:

O.Sukharev, The Russian Academy of Building Sciences, Russia

Yu.Veruzhsky, National Aviation University, Ukraine

Secretary:

T.Matchenko, National Aviation University, Ukraine

16 September, 15-00, room 1.209

1. Physical models of reinforced concrete resistance and their use at elaboration of effective coatings and floors for civil buildings.

*O.Sukharev, The Russian Academy of Building Sciences,
Russia*

V.Kolchunov, National Aviation University, Ukraine

2. Application of Fortu tool system for numerical research of durability of constructions.

*S.Gomenyuk, A.Tolok, V.Tolok, Zaporizhzhya State University,
Ukraine*

3. Problems in reconstruction of civil and industrial buildings and engineering structures.

A.Shimanovsky, V.Gordeyev, A.Ogloblya, Open Joint-Stock Company “A.Shimanovsky Ukrainian Research and Design Institute of Steel Construction”, Ukraine

Yu.Veruzsky, National Aviation University, Ukraine

4. Energy and environment audit methodology.

V. Mamalyga, National Technical University “Kyiv Politechnical Institute”, Ukraine

Co-Chairmen:

V. Shchepetov, National Aviation University, Ukraine

F. Shramme, Germany

Secretary:

V.Varukhno, National Aviation University, Ukraine

5. Modern airport technologies.

F. Shramme, Germany

6. Modern technologies of commercial service at the airport “Sofia”.

K.Ikonomov, P.Serderev, A.Andreev, Bulgaria

7. Quality of airport technology and safety, regularity and efficiency of flights.

A.Shishkov, State International Airport “Boryspil”, Ukraine

V.Balanin, V.Shchepetov, V.Stadnichenko, National Aviation University, Ukraine

8. Tribological problems of increase of resource of airport ground equipment.

I.Kravetz, V.Yermolaev, V.Varukhno, T.Kuzmenko, National Aviation University, Ukraine

9. Structural features and wear resistance of nickel-free composition coatings.

***V.Shchepetov, S.Maximov, O.Bilyakovich, V.Varuhno,
V.Gromenko, National Aviation University, Ukraine***

SECTION III
Airport Noise Capacity
X2-Noise Workshop

Co-Chairmen:

D. Collin, Snecma Moteurs, France

O. Zaporozhets, National Aviation University, Ukraine

Secretary:

E. Konovalova, National Aviation University, Ukraine

16 September, 10-00, 1.001-B

Moderator: Alan Melrose, Eurocontrol HQ

1. Airport noise capacity definition.
A. Lieuwen, Eurocontrol HQ, Brussel
2. USA achievements in noise control around the airports.
B. Sharp, Wyle Laboratories, USA
3. Russian experience in aircraft noise control.
A. Munin, TsAGI, Russia
4. Summary of Krakow Workshop results.
A. Kempton, Rolls-Royce, UK

Moderator: Zbignev Engel, Academy Gorniczo-Hutniczej, Poland

5. Airport Noise Monitoring.
A. Chyla, Poland

6. Noise disturbance in airport vicinity.

P.Hullah, Eurocontrol HQ;

7. EU airports experience in noise control.

E.Peeters, Brussels International Airport, Belgium

**Moderator: Philippe Rochat, Environmental Department of IATA,
Switzerland**

8. Optimization of airport noise capacity (scientific fundamentals, case study, provision tools).

V. Tokavev, National Aviation University, Ukraine

9. Statistical interpretation of measured data on airports.

Constantin Sandu, Turbomecanica, SA, Romania

11. Scenarios for noise and emissions in EU airports.

Nico van Oosten, Anotecc, Spain

12. Transport modes.

Antonia Cokasova, Eurocontrol

SYMPOSIUM 5
**AEROSPACE MONITORING, NAVIGATION AND CONTROL
SYSTEMS**

Co-chairmen:

L.P. Ligthart, International Research Center for Telecommunications
and Radar, Delft University of Technology,
the Netherlands

V. Kharchenko, National Aviation University, Ukraine

A. Tunik, National Aviation University, Ukraine

Secretary:

J. Averianova, National Aviation University, Ukraine

16 September, 10-00, room 1.001-A

1. Status and experiences of advanced three dimensional system simulations for nav aids and radar.

Gerhard Greving, NAVCOM Consult, Germany

2. Radar remote sensing at the International Research Center for Telecommunications and Radar of Delft University, the Netherlands.

L.P.Ligthart, IRCTR – Delft University, the Netherlands

3. Modernization of the Ukrainian air navigation system.

Yu. Cherednichenko, UkSATSE, Ukraine

V.Maksimenko, UkSATSE, Ukraine

4. Regional co-operation as key factor of ANSPs evolution.

D.Babeychuk, UkSATSE, Ukraine

5. Doppler-polarimetric radar observations of turbulence in rain.

***F. Yanovsky, National Aviation University, Ukraine
C.H.M. Unal, H.W.J. Russchenberg, L.P.Ligthart,
IRCTR – Delft University of Technology, the Netherlands***

6. Towards a more automated avionics.

L. Crovella, Avionics Systems Engineer, Italy

16 September, 15-00, room 1.001-A

7. Integrated navigation, guidance and control systems for small unmanned aerial vehicles.

***I.K. Ahn, H. Ryu, Korea Aerospace Research Institute
V. Larin, Institute of Mechanics, Ukraine
A. Tunik, National Aviation University, Ukraine***

8. Aerodata automatic flight inspection system.

J. Schinköthe, Aerodata AG, Braunschweig, Germany

9. On building of the nation-wide integrated radio navigation system.

***A.Koshevoy, Ye. Skorik, CRI N&C, Ukraine
Ya.Skalko, Ministry of defense, Ukraine
Ya.Yatskiv, National Academy of Sciences, Ukraine***

10. Accuracy of Gauss method for antenna pattern calculations.

***V. Schejbal, P. Bezoušek, M.Hajek, University of Pardubice, the
Czech Republic***

11. Algorithm of aircraft coordinates evaluation in the integrated systems of satellite radionavigation.

***V. Kharchenko, V. Konin, A.Pogurelskiy,
National Aviation University, Ukraine***

12. Aerodata system for radar inspection and analysis.

J. Schinköthe, Aerodata AG, Braunschweig, Germany

13. Aerodata maritime surveillance system.

J. Schinköthe, Aerodata AG, Braunschweig, Germany

14. Aerodata communication system (aerophone).
J. Schinköthe, Aerodata AG, Braunschweig, Germany
15. Economic-mathematic models of maintenance of radio systems.
V. Emelyanov, Russia
16. Using intelligent systems for decision support in air traffic management.
V. Kharchenko, V. Vasylyev, National Aviation University, Ukraine
17. Some problems of air and space investigations in nature use (centre for aerospace research of the Earth at IGS, NASU, - brief historical review).
V. Lyalko, A. Fedorovsky, V. Pererva, M. Popov, Centre for Aerospace Research of the Earth at the Institute at Geological Sciences, NASU, Ukraine
18. Nonlinear optimal stochastic stabilization systems.
L. Blokhin, L. Zhitekiy, National Aviation University
19. Zero-time-delay cooperative manoeuvres for real-time conflict resolution.
J. Parastari, S. M. B. Malaek, H.R. Kosari, IRAN
20. Algorithm of unification of data measured with different precision by GPS and GLONASS navigation systems.
V. Konin, National Aviation University, Ukraine
V. Kramskoy, V. Medvedev, CRI NaC, Ukraine

SYMPOSIUM 6
AIR AND SPACE LAW

Co – chairmen

Soon Kil Hong, Hankuk Aviation University, South Korea

T. Kudlay, National Aviation University, Ukraine

Secretary :

I.Sopilko, National Aviation University, Ukraine

16 September, 10-00, room 1.443

1. Problems of adaptation of national and international air law.

T. Kudlay, National Aviation University, Ukraine

2. Development and modification of international space law.

N. Malysheva, International Center for Space Law, Ukraine

3. Problems of air and space delimitation in the international law.

O. Beglyi, National Space Agency of Ukraine

4. Legal qualification and classification of aircraft flights on air routes.

V.Ryzhij, the Justice Bureau, Ukraine

16 September, 15-00, room 1.443

5. On the legal status of a state civil aviation authority.

E. Eryashov, National Aviation University, Ukraine

6. The notion “aircraft crew” in the legal acts of Ukraine.

N.Daraganova, National Aviation University, Ukraine

7. Civil liability of aircarriers.

D.Vepryniak, National Aviation University, Ukraine

8. Legal approach to signing and realization of spacecraft and aircraft insurance.

V. Seminiaka, International Center for Space Law, Ukraine

9. Problems of interactions of legal regulation of currency risks at air transportation at international and national levels.

O. Sheremeteva, National Aviation University, Ukraine

10. Legal aspects of air traffic in Ukraine.

O. Parkhomenko, Ukraine

11. Development of different directions of cooperation of the space activities partners and legal expertise of the International center for space law.

S. Kuznetsova, International Center for Space Law, Ukraine

12. International guarantees to space property.

N. Kraselech, International Center for Space Law, Ukraine

13. Legal regulations of space activities at the national level.

I. Andrushko, International Center for Space Law, Ukraine

SYMPOSIUM 7
AVIATION EDUCATION AND TRAINING

Co-chairmen:

N. Dahlstrom, Lund University School of Aviation, Sweden

S. Maksimenko, Academy of Pedagogical Sciences of Ukraine,
G.Kostuk Institute of Psychology of the Academy of
Pedagogical Sciences of Ukraine

Secretary:

N. Ladogubets, National Aviation University, Ukraine

16 September, 10-00, room 1.215

1. Challenges for basic civil aviation training.

N.Dahlstrom, Lund University School of Aviation, Sweden

2. Individuals and groups in distance learning for student pilots.

N. Dahlstrom, Lund University School of Aviation, Sweden

3. Personality problem and professional activity in extreme conditions.

*S. Maksimenko, G.Kostuk Institute of Psychology of the
Academy of Pedagogical Sciences of Ukraine*

4. Efficiency of the TRAINAIR course development unit in multi-profile civil aviation training centre.

*A. Lescovs, J. Oborins, ANS Training Centre, Airport «Riga»,
Latvia*

5. Integration of the courses based on TRAINAIR STPS into basic training for air traffic controllers.

N. Zagorskis, ANS Training Centre, Airport «Riga», Latvia

6. Application of the TRAINAIR methodology for the CNS/ATM training development.

J. Oborins, ANS Training Centre, Airport «Riga», Latvia

16 September, 15-00, room 1.215

7. Specific features of present-day classic university education.

***E. Luzik, A. Akmalidina, N. Ladogubets,
National Aviation University, Ukraine***

8. Integrating new technologies into education and training.

***G. Suslova, National Aviation University, Ukraine
T. Kameneva, International Research and Training Center of
UNESCO***

9. Interactive teaching-learning in numerical methods for
turbomachinery.

***I. Kazachkov, Torsten H. Fransson, Marianne Salomon,
Yacine Abbas, Royal Institute of Technology (KTH), Div. of
Heat and Power Technology, Sweden
V. Kalion, National Taras Shevchenko Kiev State University,
Ukraine***

10. Operator's psycho-physical training in aviation.

***A. Kovalyov, National Aviation University, Ukraine,
V. Nichiporuk, Sport Medicine Center of Ukraine***

11. Principles and methods of main aircraft engine operation processes
during training of aviation specialists.

J. Buko, Byelorussian National technical University, Belarus

SYMPOSIUM 8

**EXPERIMENTAL AND MATHEMATICAL METHODS IN
HYDRO AND GASEOUS DYNAMICS**

Co-chairmen:

V. Grinchenko, the Institute of Hydromechanics of National Academy of Sciences of Ukraine

A. Dolinsky, the Institute of Engineering Thermophysics of National Academy of Sciences of Ukraine

Secretary:

Ye.Shkvar, National Aviation University, Ukraine

16 September, 10-00, room 6.205

1. Noise generation by flow about obstacles in channels. Biological application.

V.Grinchenko, I. Vovk, A. Vovk, Institute of Hydromechanics of National Academy of Science of Ukraine

2. Antonov ASTC, Leader in STOL aircraft design.

P.Balabuyev, O.Bogdanov, ASTC Antonov, Ukraine

3. Problems of energy saving in power engineering and industry.

A. Dolinsky, O.Chayka, Institute of Engineering Thermophysics of National Academy of Sciences of Ukraine

4. Some problems of hydrodynamics.

Jose Roldan Canas, The University of Cordoba, Spain

5. Nonlinear problems of dynamics of flying objects with liquid cargo.

I. Lukovskiy, Institute of Mathematics of National Academy of Sciences of Ukraine

6. International opportunities with the Air Force research laboratory.

M. Maurice, U.S. Air Force Research Laboratory International Office, USA

7. Mathematical modeling of aerodynamical processes past hypersonic flight vehicle having an integrated scheme.

***V. Timoshenko, I. Belotserkovets, V. Galinsky,
Institute of Technical Mechanics of National Academy of
Sciences and NSA of Ukraine***

8. Computational fluid dynamic modeling of natural ventilation of a parral type greenhouse.

***Pérez-Parra J.J., Baeza E.J, Roldán, J.,
University of Cordoba, Spain
Montero, J.I., IRTA, (Barcelona, Spain)***

9. About optimizing of the initial state by dynamic systems diagnose.

***M. Enescu, National Society of Oil, Romania
N.Popa, Pitesti University, Romania***

10. Mathematical modelling of the unsteady supercavitating flows.

***Yu. Savchenko, V. Sememenko, Institute of Hydromechanics
of National Academy of Sciences of Ukraine***

11. A model for the formation of ‘optimal’ vortex rings with taking into account viscosity.

***F. Kaplanski, Ü. Rudi, Estonian Energy Research Institute,
Estonia***

12. The development of vortical rings and transformation of temperature perturbations in shear flows.

***N. Gorodetskaya, V.Nikishov, V.Oleksiuk, Institute of
Hydromechanics of National Academy of Sciences of Ukraine***

16 September, 15-00, room 6.205

13. The peculiarities of laminar-turbulent transition under complex conditions.

***E. Epik, Institute of Engineering Thermophysics of National
Academy of Sciences of Ukraine***

14. Control of the aerodynamic profile using streamwise vortices generated in a boundary layer.

N. Yurchenko, Institute of Hydromechanics of National Academy of Sciences of Ukraine,

R. Rivir, AFLR/PRTT, Wright-Patterson Air Force Base, OH, USA

R. Pavlovsky, P. Vinogradsky, A. Zhdanov, National Aviation University, Ukraine

15. Space craft flutter instability and its suppression by feedback control.

I. Selezov, Institute of Hydromechanics of the National Academy of Sciences of Ukraine

16. 2-D water entry problems.

Yu.Semenov, Institute of Technical Mechanics of National Academy of Sciences and NSA of Ukraine

17. Methods of drag reduction.

G. Voropayev, Institute of Hydromechanics of the National Academy of Sciences of Ukraine

18. Experimental research of a water drag to motion of a trimaran.

V.Moroz, Institute of Hydromechanics of National Academy of Sciences of Ukraine

19. Experimental and mathematical investigation of flows with penetrable roughnesses.

Yu. Savchenko, Ye. Gayev, Institute of Hydromechanics of National Academy of Sciences of Ukraine

20. Fundamental functions and their application.

V.Denysyuk, National Aviation University, Ukraine

21. State-of-the art trends of the physical processes computer simulation development for aircraft pilots training in Ukraine.

V.Morzhov, I.Zhukov, National Aviation University, Ukraine

22. Algebraic and one-parametric unique models of turbulent viscosity coefficient for boundary layer predictions.

V. Movchan, National Aviation University, Ukraine

23. Mathematical modelling of shear flow control methods

Ye.Shkvar, National Aviation University, Ukraine

24. Measuring complex for certified FIRE tests of aviation materials and products.

A.Dolinskiy, T.Grischenko, L.Dekusha, L.Vorobyov,

V.Kuroedov, Institute of Engineering Thermophysics of

National Academy of Sciences of Ukraine,

ASTC "Antonov", Ukraine

25. Some models of viscous gas flow at a high Reynolds number.

Stability and separation of boundary layer.

I.Lipatov, TCAGI, Russia

SYMPOSIUM 9

MANAGEMENT OF AVIATION ENTERPRISES

Co-Chairmen:

V. Schelkunov, Ukrainian National Committee of the International Chamber of Commerce

G. Yun, National Aviation University, Ukraine

Secretary:

V. Matveev, National Aviation University, Ukraine

16 September, 10-00, room 2.209

1. Strategic constituents of economic development of Ukraine (regional aspect).

V. Geets, Director of Institute of Economic Forecast of the National Academy of Sciences of Ukraine

2. Modern problems of investing into aviation business.

V. Schelkunov, President of the Ukrainian National Committee of the International Chamber of Commerce

3. Efficiency, productivity and scope of operations: a case study on US commercial airports.

Massoud Bazargan, Bijan Vasigh, College of Business, Embry-Riddle Aeronautical University

4. Effect of conflict avoidance maneuver on aircraft economics in air traffic system.

Cem Cetek, Mustafa Cavcar, Anadolu University-School of Civil Aviation, Turkey

16 September, 10-00, room 2.209

5. Aviation education and telematics.

G. Zeibekakis, A. Tzerahoglou, Technological Educational Institute of Piraeus, Greece

A. Ilavska, Local Center of Distance Education at Technical University Slovakia

6. Air transportation service ailing and state classifiers of production and service development

V.Yatsenko, Association of Aviation Agencies, Ukraine

7. Air transportation management of education in Turkey

Ergun Kaya, Ali Emre Sarilgan, Yusuf Sengur, Anadolu University, Turkey

8. The formation of the information infrastructure in Ukraine as one of the components of national security.

O.Polysayev, V.Shediakov, National Aviation University, Ukraine

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Наукове видання

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