



SCAAE-West Special Newsletter No.2 ***July 6, 2007***

Chief Editor: Hsi Chen

Associate Editor: Jane Wang

Contributing Editors:

Bill Chen, Jim Chen, Yuan Hong, Louis Huang, Jan Hu, John Lai, Charles Lee, Wai Lim, Frank Lin, Nelson Mar, Phil Oyoung, Fred Shen, Philip Tang, Rock Teng, Tony Torng, Gordon Wei, Eric Yang, Peter Yuan.

Dear Members:

This special newsletter is designed for the 2008 new business development at Anchorage, Alaska. It would be one of the best airplane meetings for the SCAAE's members. Hope the meeting will help your company and yourself to gain the business improvement in the coming years.

Best wishes to your professional development and the general service in the airplane area.

**26th Congress of International Council
of the Aeronautical Sciences
Call for Papers**

**Anchorage, Alaska, USA
14 - 19 September 2008**

**Please submit your abstract online at
www.icas.org before 31 July 2007**

**Hosted by
AIAA - American Institute of Aeronautics and Astronautics**

**26th ICAS CONGRESS – Anchorage, Alaska, USA
14 - 19 September 2008
CALL FOR PAPERS**

The challenges facing aeronautics have changed and continue to change. The future will require different approaches to the provision of air mobility and air transportation to meet the economic growth and quality of life expectations of all people. The integration of existing and new disciplines will create the concepts of operation and the processes for the design, manufacturing, maintenance and operation of a new generation of air vehicles and supporting systems.

International cooperation will become increasingly more important. The attraction and education of the next generation of scientists and engineers for aeronautics and aviation will be significantly affected by the way that these challenges are addressed.

In recent years, several visionary and strategic documents on the future of aeronautics have been developed. These have focused on societal needs and some key challenges for aeronautics have been identified. Amongst these are improvements in aviation safety and security, reductions in noise and emissions and increases in airspace and airport capacity. The design, development and manufacture of the aircraft and its systems requires complex, multidisciplinary process optimisation, involving a worldwide supply chain. Recognising this, in addition to the usual topic areas, ICAS 2008 will focus on:

- Aircraft design, systems and systems integration
- Air transport system efficiency
- Safety and security
- Challenge of the environment

We are expecting a large number of papers in these areas, since the AIAA

Aviation Technology, Integration, and Operations Conference (ATIO) for 2008 will be fully integrated with ICAS 2008 and the ATIO contributions are being included in the ICAS2008 programme. As a guide to authors, the list of ICAS 2008 topic headings is appended. However, this list should not be regarded as exhaustive and papers from other relevant areas are welcome.

Authors are invited to provide an abstract for a potential paper before 31 July 2007

ICAS 2008 TOPIC AREAS

1. Aircraft and Systems Integration

- Subsonic and Supersonic Transport Aircraft
- Non-Conventional Aviation Systems and Concepts
- Unmanned Air Vehicles
- Hypersonic Aircraft
- Commuter and General Aviation Aircraft
- Rotorcraft
- Sailplanes and Ultra light Aircraft
- Multidisciplinary Optimization
- Design for Survivability
- Design Education
- New Aircraft Concepts - Military, Civil
- Trans-atmospheric Vehicles

2. Aerodynamics

- Subsonic
- Transonic and Supersonic
- Hypersonic Aerothermodynamics
- High Angle of Attack, High Lift
- Computational Fluid Dynamics
- Transition and Turbulence
- Wind Tunnel and Flight Testing
- Experimental Facilities and Techniques
- Aero acoustics
- Flow Control
- Biologically-inspired flight

3. Materials and Structures

- Composite Materials and Structures
- Applications and Issues
- Metallic Alloys
- High Temperature Materials and Structures

- Structural Mechanics
- Fatigue and Damage Tolerance
- Structural Dynamics and Aeroelasticity
- Dynamic Loading, Acoustic Loading and Impact
- Structural Testing
- Nanotechnology

4. Propulsion

- Gas Turbines
- Propellers and Fans
- Hypersonic Propulsion
- Inlets and Nozzles
- Propulsion / Airframe Integration
- Noise and Emissions (Cf Topic No 10)
- Experimental Facilities and Techniques
- ISABE Supported Session

5. Flight Dynamics and Control

- Flight Dynamics
- Control Techniques and Systems
- Aircraft Handling Qualities
- Flight Testing and Simulation
- Performance and Trajectory Optimization
- Missiles Guidance
- Autonomous operations
- Neural Networks
- System and Parameter Identification

6. Systems, Subsystems and Equipments

- Integration of Equipment Systems
- Power Optimised Aircraft Systems
- Electrical, Hydraulic and Pneumatic Systems
- Avionic Systems
- Landing Gear and Braking Systems
- Auxiliary and Emergency Power Generation
- Aircraft Fuel Systems
- Lightning, Cabin and Water/Waste
- Ice and rain protection
- Advanced Sensor Systems
- Emerging Systems / New Technologies

7. Systems Engineering and Supply Chain

- Integrated Product / Process Development
- Supply chain

- Customer and Product Support
- Life Cycle Value
- CAD / CAM and Computer Integrated Manufacturing
- Information System Technology
- Advanced Information Technology
- Design, Development and Manufacturing
- Engineering Management
- Robotics
- Total Quality
- Automation and Concurrent Engineering

8. Air Transport System Efficiency

- Aircraft Operation and Maintenance
- Flight Management
- ATM and airspace capacity
- Weather effects
- Airport capacity
- Intermodality issues
- SAE Supported Session

9. Safety and Security

- Accident prevention
- Accident survivability, Crashworthiness
- Human-Machine Interface
- Airworthiness and Certification
- Reliability and Maintainability
- Ageing Aircraft
- Aviation Medicine
- Airborne aircraft security
- Airport security

10. Challenge of the Environment

- Reduction of Noise
- Reduction of Emissions
- Alternate fuels
- Operational procedures
- Maintenance and disposal processes

ICAS 2008 in Anchorage, Alaska, USA

General Information

The 26th ICAS Congress will be hosted by the American Institute of Aeronautics and Astronautics (AIAA) and will be held from 14-19 September 2008 in Anchorage, Alaska.

About Anchorage

The largest city in Alaska with a population of 254,000, Anchorage is framed on the north by Mt. McKinley and the agriculturally rich Matanuska-Susitna Valley; on the south by the Kenai Peninsula; the east by Prince William Sound; and the west by Cook Inlet and the great Alaska Range. Anchorage is an exciting, spirited, cosmopolitan city with fine restaurants, shops and first-rate entertainment, surrounded by spectacular wilderness. With over 14 hours of daylight per day in September, there is plenty of time to attend the Congress and to enjoy the location. When meeting in Anchorage, Alaska is on the doorstep and a short drive, or flight, takes you into the "Great Land." However, much of Alaska's mystique and beauty can be enjoyed both in, and around, Anchorage itself. Delegates, spouses and their families will be able to experience many attractions either alone or in group tours.

About Congress Venue

The William A. Egan Civic & Convention Centre (www.egancenter.com) is a unique blend of Alaskan hospitality, native art, and modern technology. Built in 1984, this Centre is located in the heart of downtown Anchorage, which makes it convenient for a range of restaurants and shops.

Social Programme

In addition to the Congress receptions and the banquet, the Anchorage Convention and Visitors Bureau will welcome accompanying persons with a presentation on local attractions and activities. They will also assist with booking tours.

Technical visits

During the Congress, field trips will be arranged to places of interest to the technical community. If you plan your flights back from Anchorage via Seattle, you may also visit Boeing.

Registration fee

The congress registration fee, including the CD-ROM Proceedings, is expected to be approximately 650 USD for early registration. This is 10% lower than for ICAS 2006 in Hamburg. Furthermore please note that hotel costs for Anchorage are considerably lower than for Hamburg (20-25%). The lower costs for registration and hotels will compensate for the higher costs of flights to Alaska. The International Council of the Aeronautical Sciences and the American Institute of Aeronautics and Astronautics look forward to your participation in the 26th ICAS Congress.

Further information can be obtained from:

AIAA
1801 Alexander Bell Drive
Reston, VA 20191-4344
USA
E-mail: meganh@aiaa.org
Web: www.icas2008.org