

21st ICAS Congress Melbourne, Australia, 13–18 September 1998

The 21st Congress of the International Council of the Aeronautical Sciences (ICAS) will be held in Melbourne, Australia. The ICAS Member Association in Australia, the Australian Division of the Royal Aeronautical Society together with The Institution of Engineers, Australia, will act as ICAS host Societies. The objective of ICAS is to promote the international exchange of information in all branches of aeronautical science and technology. Its aim in recent Congresses has been to emphasise the fundamentals of, as well as the interrelationships between, the various aeronautical disciplines, from basic research through to recent developments in design, engineering, manufacturing and aircraft operations.

The Congress will cover the important basic topics of aerodynamics, stability and control, structures and materials, propulsion and, in addition, will emphasise aircraft design, operations, human factors and systems technology. New developments having promise for the future will be highlighted and time will be allocated for discussing key issues in engineering, information technology and management as they relate to aircraft design, manufacture and operation. A list of topic headings is appended as a guideline to those wishing to present papers, but it should not be regarded as exclusive or as strictly defining the various sessions of the Congress.

Following the experience of recent ICAS Congresses, the number of papers in the final programme is expected to be some 300, organised in a number of parallel sessions. For the first time at an ICAS Congress, there will also be poster sessions for papers which the authors or the Programme Committee

consider better suited to that form of presentation.

There will be a number of invited lectures, on topics of general importance and wide interest. These so-called "General Lectures" are normally held in the first session in the morning and are always well attended. During the Congress an integral technical exhibition is planned.

Finally, there will be a set of student sessions. Undergraduate or post graduate students who will not have completed doctorate studies by the date of the Congress may submit an abstract to their ICAS member society on any topic of the Congress. The abstract and subsequent paper are to be authored and presented by the student. Monetary awards will be made for the best two student papers of the Congress.

Authors are asked to submit abstracts of **one** full single-space typewritten page, supplemented by a few key diagrams. The abstracts should highlight the essential features and status of the work. Please indicate where possible the relevant topic areas and corresponding numbers under which you think the paper should be considered. Any abstract which is submitted specifically for the poster sessions should be clearly marked "poster session only".

The abstracts of the papers should be sent to:
Maria Aprilante, Deputy Conference Manager
The Royal Aeronautical Society
4 Hamilton Place, London W1V 0BQ

Call for papers

Selected Suggested Topics (The subheadings are intended to be indicative rather than exhaustive)

1. Configuration and Design Integration

Subsonic and Supersonic Transport Aircraft
Military Aircraft and Missiles
Unmanned Vehicles (UAVs and RPVs)
Hypersonic Aircraft
Commuter and General Aviation Aircraft
Rotorcraft
Sailplanes and Ultralight Aircraft
Multidisciplinary Optimisation
Design for Survivability
Design Education

2. Aerodynamics

Subsonic
Transonic and Supersonic
Hypersonic Aerothermodynamics
High Angle of Attack
Computational Fluid Dynamics
Transition and Turbulence
Windtunnel and Flight Experiments
Experimental Facilities and Techniques
Aeroacoustics

3. Materials and Structures

Composite Materials and Structures 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

4. Propulsion Gas Turbines

Propellers and Fans Hypersonic Propulsion Inlets and Nozzles Propulsion/Airframe Integration Noise and Emissions Experimental Facilities and Techniques

5. Performance, Stability and Control

Performance and Trajectory Optimisation Control Techniques and Systems Aircraft Handling Qualities Flight Testing and Simulation Flight Dynamics Missile Guidance System and Parameter Identification

6. Systems and Subsystems Technology

System Integration
Electrical, Hydraulic and Environmental Systems
Avionic Systems
Landing Gear
Auxiliary Power Units
Fault Tolerant Systems
Advanced Sensors

Engineering and Design, Manufacturing and Management Integrated Product/Process Development

Support
Life Cycle Cost
CAD/CAM and Computer Integrated Manufacturing
Information System Technology
Manufacturing Processes
Robotics
Total quality
Market issues and economics

Automation and concurrent engineering

8. Aircraft Operations

Flight Safety
Flight Management, Navigation and
Communications
Ageing Aircraft
Airport and Air Traffic Control
Airworthiness and Certification
Accident Analysis
Reliability and Maintainability
Environmental Effects
Physics of the Atmosphere

9. Human Factors

Man-Machine Integration Simulation Technology Crash Survival Aviation Medicine

Deadline for receipt of abstracts is 9 May 1997

After preliminary screening and evaluation the national societies will submit the abstracts with their recommendations to the ICAS Programme Committee for final selection. Papers will be considered for presentation at specialist parallel or general poster sessions.

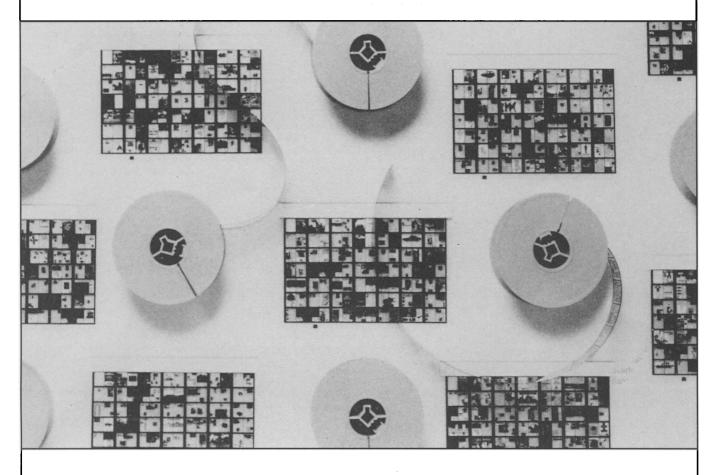
Contributions from non-member societies may be sent directly to the ICAS Secretariat, Anthony Fokkerweg 2, NL-1059 CM Amsterdam, The Netherlands.

John E. GREEN
President

Engineers and scientists from 30 countries attended the last Congress in Sorrento (Italy) and appreciation of the high quality of papers and the unique opportunity to meet colleagues from all over the world was widely expressed. We are sure that this high-level support for the Congress and its excellent spirit of international co-operation will be even more a feature of our next meeting in Melbourne in 1998.

Jean-Pierre MAREC Programme Committee Chairman

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