

# ICAS 92

**18th ICAS CONGRESS**  
**Beijing, People's Republic of China**  
**20-25 September 1992**

## CALL FOR PAPERS

The objective of ICAS (International Council of the Aeronautical Sciences) is the international exchange of information among all branches of aeronautical science and technology. The next ICAS Congress will be held in Beijing, People's Republic of China and will emphasise, as did the most recent successful Congresses of Jerusalem (1988) and Stockholm (1990), the fundamentals, as well as the inter-relations, of the various aeronautical disciplines, culminating in recent developments in design practice. Hence, in addition to important basic topics of aerodynamics, stability and control, structures and propulsion, there will be particular emphasis on aircraft design, operations, human factors and systems technology. Papers will be welcome that reflect new developments having promise for the future. A list of topic headings is appended as a guideline to those wishing to present papers, but it need not be regarded as exclusive or as strictly defining the various sessions of the Congress.

Following the experience of the recent Congresses, the number of papers in the final programme will be between 200 and 240 and they will be organised in a number of parallel sessions.

In addition there will be two student sessions. Students completing their last year of undergraduate studies or their first year of graduate studies in 1991 or 1992 may submit an abstract to their ICAS member society on any topic of the congress. The abstract and the subsequent paper are to be authored and presented by the student. A monetary award will be made to the best student paper 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 the paper is to be considered.

**The abstracts of the papers should be sent by 24 May 1991 to: ICAS 92, Royal Aeronautical Society, 4 Hamilton Place, London W1V 0BQ. Tel: 071-499 3515. Fax: 071-499 6230.**

### 1. CONFIGURATION AND DESIGN INTEGRATION

- \* Transport Aircraft
- \* Military Aircraft and Missiles
- \* Hypersonic Aircraft
- \* Commuter and General Aviation Aircraft
- \* Rotocraft
- \* Sailplanes and Ultralight Aircraft
- \* Multidisciplinary Optimisation

### 2. AERODYNAMICS

- \* Subsonic
- \* Transonic and Supersonic
- \* Hypersonic Aerothermodynamics
- \* High Angle of Attack
- \* Computational Fluid Dynamics
- \* Transition and Turbulence
- \* Wind Tunnel and Flight Experiments
- \* Experimental Facilities and Techniques

### 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 and Impact
- \* Structural Testing

### 4. PROPULSION

- \* Gas Turbines
- \* Propellers and Fans
- \* Hypersonic Propulsion
- \* Inlets and Nozzles
- \* Propulsion/Airframe Integration
- \* Noise

### 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, Hydraulics and Environmental Systems
- \* Avionic Systems
- \* Landing Gear
- \* Auxiliary Power Units
- \* Fault Tolerance Systems
- \* Advanced Sensors

### 7. MANUFACTURING TECHNOLOGY

- \* CAD/CAM and Computer Integrated Manufacturing
- \* Manufacturing Processes
- \* Robotics

### 8. AIRCRAFT OPERATIONS

- \* Flight Safety
- \* Flight Management, Navigation and Communications
- \* Airport and Air Traffic Control
- \* Airworthiness and Certification
- \* Reliability and Maintainability
- \* Environmental Effects

### 9. HUMAN FACTORS

- \* Man-Machine Integration
- \* Simulation Technology
- \* Crash Survival

### 10. APPLIED MATHEMATICS AND MECHANICS IN AERONAUTICS

- \* Mathematics and Mathematical Modelling
- \* Solid Mechanics
- \* Fluid Mechanics

