

The International Council of the Aeronautical Sciences (ICAS)

A Descriptive Briefing

Jan. 2004

Mission

The International Council of Aeronautical Sciences intends to provide regularly scheduled events and publications that enable a *better understanding of engineering science and practice and an improved level of cooperation* among aeronautical engineering professionals from around the world

Objectives

- **Facilitate the exchange of ideas, information, and understanding about the body of aeronautics knowledge among the *international* community so that important research can proceed rapidly**
- **Expose the *international* research community to challenges and issues through lectures by leading experts in aeronautics and its technologies**
- **Engage young people in the *global* aeronautical community through special events and prizes**
- **Create a vibrant *international* network that produces increased understanding, appreciation, and tolerance among participants**

Process

- **Implement our objectives through the involvement of appointed representatives of our Member Societies and the valued advice and counsel of our Affiliated Societies and Associated Organizations**
- **Provide a biennial Congress to present useful, high quality work from world-wide research and technology organizations to all interested engineers and scientists**
- **Provide articulate experts to challenge our global community on issues of specific interest to aeronautics**
- **Provide supporting sessions and papers to meetings of Member and Affiliated Societies upon request**
- **Provide global recognition for key leaders and researchers in aeronautics through several prestigious awards**
- **Provide a global platform for young engineers and students to begin to develop an international network of colleagues**

Background

- **ICAS was founded by Theodore von Karman in the mid-fifties as a non-government not-for-profit scientific organization to encourage the free international exchange of information on aeronautical research and technology**
- **ICAS currently serves as the *only* international support organization to representative aeronautical engineering professional societies, affiliated societies, and associated organizations and their members in 33 countries**

Governance

- **ICAS functions under three primary bodies**
 - **General Assembly (meets biennially)**
 - **Executive Committee (meets at least twice each year)**
 - **Program Committee (meets annually)**
- **The Executive Committee provides the administrative continuity and direction supported by:**
 - **Full-time Secretariat**
 - **Finance Subcommittee**
 - **Strategic Planning Subcommittee**
 - **Honors and Awards Subcommittee**
 - **External Relations Subcommittee**
 - **Membership Subcommittee**

ICAS Organization

General Assembly

Representatives of Member Societies

Executive Committee (Board)

Officers (President, Past President, Executive Secretary, Honorary Treasurer, Chairman Programme Committee)

Additional members (2-8)

Programme Committee

- planning of the scientific and technical content of ICAS programmes
- about 50 members
- Supported by the Programme Planning SubCommittee

ICAS Executive Committee (2003-2004)

Officers

President : B. Fredriksson, Sweden

Executive Secretary : A. Gustafsson, Sweden

Honorary Treasurer : J. M. Swihart, U.S.A.

Chairman Programme Committee : J. N. Hefner, U.S.A.

Past President : W. Schmidt, Germany

Members

F Abbink, Netherlands

R. Bengelink, USA

G. M. Carlomagno, Italy

J.P. Marec, France

I. Poll, United Kingdom

S. Kobayakawa, Japan

ICAS Member Societies

Argentina

Universidad Nacional de Cordoba
Depto de Aeronautica
Facultad de Ciencias Exactas, Fisicas Y
Naturales
Casilla de Correo 395
5000 Cordoba

Australia

The Royal Aeronautical Society
Australian Division
PO Box 573
Mascot, NSW 2020

Belgium

Royal Flemish Association
of Engineers
c/o VonKàrmàn Institute for Fluid Dynamics
Chaussée de Waterloo 72
1640 Rhode - St. Genese

Brazil

Associao Brasileira de Ciencias Mecanicas
C/O Centro Tecnico Aerospacial
Instituto de Aeronautica e Espaco
12228-904 Sao José dos Campos

Canada

CASI - Canadian Aeronautics and Space
Institute
1685, Russel Road
Suite 1A
Ottawa, Ontario K1G 0N1

People's Republic of China

CSAA - Chinese Society of Aeronautics and
Astronautics
No 5 Liangguochang Road
Dongcheng District
Beijing 100010

Czech Republic

Czech Society for Mechanics
C/O Brno University of Technology
Institute for Aerospace Engineering
Engineering Technicka 2
616 69 Brno

Finland

The Finnish Association of Graduate
Engineers TEK
Ratavartijankatu 2
00520 Helsinki

France

AAAF - Association Aéronautique et
Astronautique de France
61 avenue du Château
78480 Verneuil sur Seine
France

Germany

DGLR - Deutsche Gesellschaft für Luft und
Raumfahrt
Godesberger Allee 70
53175 Bonn

Greece

Hellenic Aeronautical Engineers Society
3, Karitsi Street
10561 Athens

Hungary

Scientific Society of Mechanical Engineers
PO Box 433
1371 Budapest

India

Aeronautical Society of India
13-B, Indrapasthra Estate
New Delhi - 110002

Indonesia

IAAI
Institut Teknologi Bandung
Jalan Ganesha 10
40132 Bandung

Israel

Israel Society of Aeronautics and Astronautics
PO Box 2956
Tel-Aviv 61028

Italy

AIDAA
Via Nazionale 200
00184 Rome

Japan

JSASS - Japan Society for Aeronautics and
Space Sciences
Meikou Bldg. Bekkan, 1-18-2 Shinbashi
Minato-ku
Tokyo 105

Korea

KSASS - Korean Society for Aeronautical and
Space Sciences
#635-4, Yeogsam-dong, Kangnam-ku,
Seoul 135-703

The Netherlands

NVvL
Anthony Fokkerweg 2,
1059 CM, Amsterdam

Pakistan

The Institution of Engineers Pakistan
I.E.P. Bldg., 4th Floor
177/2 Liaquat Barracks
Karachi 75530

ICAS Member Societies

Poland

Polish Society of Mechanical Engineers and Technicians
C/O Warsaw University of Technology
ul. Nowowiejska 24
00-665 Warsaw

Portugal

JNICT
C/O Instituto Superior Técnico
Av. Provisos Pais
1069 Lisboa Cedex

Romania

Commission d'Astronautique de l'Académie de Roumanie
125 Calea Victoriei S.1
71102 Bucuresti

Russia

Central Aerohydrodynamics Institute
1, Zhukovski Street
Zhukovski
Moscow Region 140160

Republic of South Africa

Aerotek, CSIR
PO Box 395
Pretoria 0001

Spain

INTA
Institutional Relations Directorate
Carretera de Ajalvir Km.4
28850 Torrejon de Ardoz

Sweden

SSAA - Swedish Society for Aeronautics and Astronautics
PO Box 4207
17154 Solna

Switzerland

Schweizerische Vereinigung Für Flugwissenschaften
c/o Pilatus Aircraft
6371 Stans

Turkey

Technical University of Istanbul, Maslak
P.K.9 Taskim
Istanbul 80191

United Kingdom

RAeS - Royal Aeronautical Society
4 Hamilton Place
London W1V 0BQ

U.S.A.

AIAA - American Institute of Aeronautics and Astronautics
1801 Alexander Bell Drive
Suite 500
Reston, VA, 22091

Republic of Yugoslavia

Yugoslav Aerospace Society
27, Marta Str. 80
11000 Beograd

ICAS Affiliated Societies

Taiwan, China

Aeronautical and Astronautical Society
of the Republic of China (AASRC)
321 Kuang Fu Road, Sec. 2
Hsinchu, Taiwan 300

ICAS Associates

SAE – Society of Automotive Engineers

400 Commonwealth Drive
Warrandale, PA 15096-0001
USA

von Karman Institute for Fluid Dynamics

Chaussee de Waterloo 72
1640 Rhode-St. Genese
Belgium

FOI – Swedish Defense Agency

SE-17290 Stockholm
Sweden

National Chen Kung University

Tainan, Taiwan

National Aerospace Laboratory (NLR)

PO Box 90502
1006 BM Amsterdam
Netherlands

SAAB AB

58188 Linkoping
Sweden

Volvo Aero Corporation

SE-46181 Trollhatten
Sweden

Swedish Aeronautical Forum (NFF)

c/o KTH Aeronautics Dept.
SE-10044 Stockholm
Sweden

ICAS links & agreements with other organisations (1)

- **SAE (MoU)**
- **ISABE (MoU)**
- **CEAS Agreement**

*ICAS links & agreements
with other organisations (2)*
Examples SAE & ISABE

- Provide invited lectures/sessions at each others conferences
- Publication/announcements of Call for Papers

Resulting in:

- SAE & ISABE sessions at ICAS congresses
- ICAS sessions at SAE & ISABE conferences

ICAS links & agreements with other organisations (3)

Extract from ICAS – CEAS Agreement

- The objectives of this agreement are to provide a platform for future co-op-eration between CEAS and ICAS and to ensure that, where the opportunity exists, the two organisations support each other.
- Co-operation will entail the *exchange of information on future programme plans*, the exercise of *best endeavours by both organisations to minimise conflicts* and, where appropriate, the promotion of each others activities and publications. The co-operation may in future be expanded to include other activities such as joint sponsorship of conferences and special events, joint honours and awards etc.

ICAS Congress History

- | | |
|-------------------------------------|--|
| 1958 Spain - Madrid | 1986 United Kingdom - London |
| 1960 Switzerland - Zurich | 1988 Israel - Jerusalem |
| 1962 Sweden - Stockholm | 1990 Sweden - Stockholm |
| 1964 France - Paris | 1992 China - Beijing |
| 1966 United Kingdom - London | 1994 United States - Anaheim |
| 1968 Germany - Munich | 1996 Italy - Sorrento |
| 1970 Italy - Rome | 1998 Australia - Melbourne |
| 1972 Netherlands - Amsterdam | 2000 United Kingdom - Harrogate |
| 1974 Israel - Haifa | 2002 Canada – Toronto |
| 1976 Canada - Ottawa | 2004 Japan – Yokohama |
| 1978 Portugal - Lisbon | 2006 Germany – Hamburg |
| 1980 Germany - Munich | 2008 USA ? |
| 1982 United States – Seattle | |
| 1984 France - Toulouse | |

ICAS Congresses – some statistics (1)

	1998 Melbourne	2000 Harrogate	2002 Toronto
Number of Participants:	554	505	575
Countries represented:		30	34
Abstracts received:	521	507	509
Papers in final programme: (1)	313	359	442
Accepted oral:	272	279	334
Reserves:	26	45	75

(1): including additional invited lectures + SAE and ISABE sessions

NOTE: Increase from 7 to 8 parallel sessions at ICAS 2002

ICAS Congresses – some statistics (2)

ICAS 2002 Toronto – more details

Abstracts from > 30 countries: Canada 78, USA 52, China 39, Germany 37, UK 33, Japan 31, Italy 30, France 25, Australia 19, Russia 15, Netherlands 11, Sweden 9, Finland 3, Israel 6, Pakistan 13, Czech Republic 12, Poland 10, Taiwan 8, Hungary 4, Brazil 7, Indonesia 9, Portugal 5, Turkey 12, South Africa 2, India 6, Switzerland 5, Romania 4, Spain 3 + others

Participants from 34 countries: Canada 148, USA 99, Germany 56, Japan 54, France 40, UK 40, Sweden 22, Italy 21, China 19, Netherlands 19, Russia 15, Australia 8, Finland 7, Israel 6, Pakistan 6, Czech Republic 5, Poland 4, Taiwan 4, Hungary 3, Greece 3, Brazil 2, Indonesia 2, Ireland 2, Korea 2, Portugal 2, South Africa 2, and one each from Hong Kong, Iran, Malta, Romania, Spain, Switzerland, Turkey, and Yugoslavia.

Areas of Interest

- **Aircraft and Systems Integration**
- **Aerodynamics**
- **Materials and Structures**
- **Propulsion**
- **Flight Dynamics and Control**
- **Systems, Subsystems and Equipments**
- **Systems Engineering and Supply Chain**
- **Air Transport System Efficiency**
- **Safety and Security**
- **Challenge of the Environment**

ICAS Honors and Awards

- **Daniel and Florence Guggenheim Memorial Lecture**
- **von Karman Award for International Cooperation**
- **Maurice Roy Medal**
- **John J. Green Award**
- **John McCarthy Student Awards**
- **Life Membership**

Recent recipients of the von Karman Award

**1996: V2500 Commercial Engine Development
(U.S.A., United Kingdom)**

**1998: BOMBARDIER GLOBAL EXPRESS
(Canada, Germany, France, United Kingdom)**

**2000: HYPR Programme
(Japan)**

**2002: F/A18 Follow-on Structural Test Program
(Canada, Australia)**

**2003: X-31 Demonstrator Aircraft Project
(Germany, U.S.A.)**

Recent recipients of the Maurice Roy Medal

1992 J. SWIHART (U.S.A.)

1994 A. YOUNG (United Kingdom)

1996 J. WEN MEI (China)

1998 R. V. HARRIS (U.S.A.)

2000 J. ROEDER (Luxemburg)

2002 J. BALAZARD (France)

2003 P. SANTINI (Italy)

Value of ICAS

- **ICAS is the only *truly global* organization supporting the *aeronautical engineering* professional societies in 33 countries**
- **ICAS provides a *global* support network to each of its Member and Affiliated societies. Through these societies it provides access to leading members of the world-wide aeronautical engineering community**
- **Through its *global* meetings and programs ICAS provides an opportunity for students and young engineers to develop an international network of colleagues and peers**
- **ICAS provides significant coverage of the financial risk for the local society involved in the sponsorship of a biennial Congress**

ICAS Contact address

ICAS Secretariat

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Sweden

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The ICAS Secretariat is from January 2003 hosted by the Swedish Society for Aeronautics and Astronautics (SSAA).

ICAS Website

www.icas.org