

The International Council of the Aeronautical Sciences (ICAS)

A Descriptive Briefing

May 2006



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

(2005-2006)

Officers

President :	<i>J. N. Hefner, U.S.A.</i>
Executive Secretary :	<i>A. Gustafsson, Sweden</i>
Honorary Treasurer :	<i>W. Schmidt, Germany</i>
Chairman Programme Committee :	<i>F Abbink, Netherlands</i>
Past President :	<i>B. Fredriksson, Sweden</i>

Members

<i>R. Bengelink, USA</i>	<i>G. M. Carlomagno, Italy</i>
<i>A. Filatyev, RUS</i>	<i>D. Muller-Wiesner, DE</i>
<i>C. Mari, FR</i>	<i>I. Poll, United Kingdom</i>
<i>S. Suzuki, JP</i>	<i>M. Scott, AUS</i>
<i>J. Szodruch, DE</i> <i>(associated for ICAS 2006)</i>	

ICAS Member Societies (1)

Argentina

Universidad Nacional de Cordoba
Depto de Aeronautica
Avda. Dr. Velez Sarsfield 1611
X5016GCA Cordoba

Australia

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

Belgium

Royal Flemish Association of Engineers
c/o Technological Institute, Aeronautical Section
Desguinlei 214
BE-2018 Antwerpen

Brazil

Associao Brasileira de Ciencias Mecanicas
c/o Centro Tecnico Aeroespacial
Instituto de Aeronautica e Espaco
12228-904 Sao José dos Campos

Canada

**CASI - Canadian Aeronautics and
Space Institute**
1750 Courtwood Crescent, Suite 105
Ottawa, Ontario K2C 2B5

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 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

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

ICAS Member Societies (2)

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

Poland

Polish Society of Aerospace Sciences

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

TsAGI - Central Aerohydrodynamics Institute

1, Zhukovski Street
Zhukovski
Moscow Region 140160

Republic of South Africa

CSIR - Defencetek

PO Box 395
Pretoria 0001

ICAS Member Societies (3)

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/SVFW**
c/o RUAG Aerospace
CH-6032 Emmen

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

AASRC - Aeronautical and Astronautical
Society of the Republic of China
Room R3-211, No. 300, Jhongda Rd.,
Jhongli City, Taoyuan County 320, Taiwan (R.O.C.)

ICAS Associates (1)

**Cooperative Research Centre for
Advanced Composite Structures Ltd**

506 Lorimer Street,
Fishermans Bend, Victoria,
3207 Australia

VKI - von Karman Institute for Fluid Dynamics

Chaussee de Waterloo 72
1640 Rhode-St. Genese
Belgium

Institute for Aerospace Research (IAR/NRC)

Montreal Road
Ottawa, Ontario, K1A 0R6
Canada

**ONERA French Aeronautics and Space
Research Center**

BP 72
92322 Chatillon Cedex
France

Snecma

2 bd du Général Martial Valin
75724 Paris CEDEX 15
France

DLR – German Aerospace Center

Linder Höhe
51147 Köln
Germany

CIRA – Italian Aerospace Research Center

Via Maiorise
81043 Capua (Caserta)
Italy

ICAS Associates (2)

JAXA - Institute of Aerospace Technology (IAT)

7-44-1, Jindaiji Higashi-machi, chofu-shi
Tokyo 182-8522
Japan

EADS N.V.

Le Carré, Beechavenue 130-132
1119 PR Schiphol-Rijk
Netherlands

NLR - National Aerospace Laboratory

PO Box 90502
1006 BM Amsterdam
Netherlands

ALAC – Air Launch Aerospace Corporation

9 Druzhinnikovskaya Street
123242 Moscow
Russia

CIAM - Central Institute of Aviation Motors

2, Aviamotornaya St.
111116 Moscow
Russia

MAI – Moscow Aviation Institute

4 Volokolamskoye shosse
125993 Moscow
Russia

Russian Academy of Engineering - Aerospace Section

Novoposelkovaya street 6
125459 Moscow
Russia

ICAS Associates (3)

SAAB AB

58188 Linköping
Sweden

Volvo Aero Corporation

SE-46181 Trollhättan
Sweden

FOI – Swedish Defense Research Agency

SE-16490 Stockholm
Sweden

Swedish Aeronautical Forum (NFF)

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

The Boeing Company

WHQ, Technical Relations
100 North Riverside, MC 5003-5495
Chicago, IL 60606
USA

Lockheed Martin Aeronautics

Forth Worth
Texas 76101
USA

Honda R&D Americas Inc.

6423 B Bryan Blvd.,
Greensboro, NC 27409
USA

ICAS links & agreements with other organisations (1)

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

ICAS links & agreements with other organisations (2)

Examples ISABE & SAE

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

Resulting in:

- ISABE & SAE sessions at ICAS congresses**
- ICAS sessions at ISABE & SAE 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-operation 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 United States - Anchorage |
| 1982 United States – Seattle | 2010 ?? |
| 1984 France - Toulouse | |

ICAS Congresses – some statistics

	1998 Melbourne	2000 Harrogate	2002 Toronto	2004 Yokohama
Number of Participants: ⁽¹⁾	554(+65)	539(+93)	522 (+53)	570(+80)
Countries represented:		30	34	30
Abstracts received:	521	507	509	530
Papers in final programme: ⁽²⁾	313	359	442	428
Accepted oral:	272	279	334	338
Reserves:	26	45	75	90

(1) Figure within bracket = accompanying persons

(2) including additional invited lectures + SAE and ISABE sessions

NOTE: Increase from 7 to 8 parallel sessions for ICAS 2002 and ICAS 2004

Topic Areas - ICAS 2006

- 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, France, U.S.A., United Kingdom)**

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

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

**2004: GARTEUR Programme
(Germany, France, Italy, Netherlands, Spain, Sweden, United Kingdom)**

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)

2004 B. LASCHKA (Germany)

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

**Anders Gustafsson
c/o FOI**

**SE- 16490 STOCKHOM
Sweden**

Phone: +46-8.5550 3151

Mobile: +46-70.373 1196

Fax: +46-8.5550 3397

Email: secr.exec@icas.org

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

ICAS Website

www.icas.org

