

The International Council of the Aeronautical Sciences (ICAS)

A Descriptive Briefing

Update June 2008

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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

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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

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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

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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

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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

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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

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ICAS Executive Committee

(2007-2008)

Officers

President :	F Abbink, Netherlands
Executive Secretary :	A. Gustafsson, Sweden
Honorary Treasurer :	B. Fredriksson, Sweden
Chairman Programme Committee :	I. Poll, UK
Past President :	J. N. Hefner, USA

Members

R. Bengelink, USA	G. M. Carlomagno, Italy
A. Filatyev, RUS	D. Muller-Wiesner, DE
C. Mari, FR	M. Scott, AUS
S. Ying, USA (associated for ICAS 2008)	S. Suzuki, JP

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ICAS Member Societies (1)

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
ABCM - Associação Brasileira de
Ciências Mecânicas
Av. Rio Branco, 124/14
Andar- Centro
20040-001 - Rio de Janeiro

Canada
CAASI - Canadian Aeronautics and
Space Institute
350 Terry Fox Drive, Suite 104
Karlana Ontario K0K 2V5

People's Republic of China
CSAA - Chinese Society of
Aeronautics and Astronautics
No 5 Liangjiuchang Road
Dangcheng 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
6, rue Galliéni
75782 Paris Cedex 16

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

Greece
HAES - Hellenic Aeronautical Engineers Society
3, Kartha Street
10561 Athens

Hungary
Scientific Society of Mechanical Engineers
PO Box 433
1371 Budapest

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

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ICAS Member Societies (2)

Indonesia
IUKI
Institut Teknologi Bandung
Jalan Ganesha 10
40132 Bandung

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

Italy
ANAA - Associazione Italiana Di
Aeronautica e Astronautica
Casella Postale 227
00187 Roma V. R.

Japan
JSASS - Japan Society for
Aeronautics and Space Sciences
Meikou Bldg. Bldg. Bldg.
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

Lithuania
Aviation Engineers Association
Rodunes kelias 30
LT-02187 Vilnius

The Netherlands
NVVA - Netherlands Association of
Aeronautical Engineers
Anthony Fokkerweg 2,
1059 CH, Amsterdam

Poland
Polish Society of Aerospace Sciences
c/o Warsaw University of Technology
ul. Nowowiejska 24

Portugal
CPTAE - Centro de Ciências e Tecnologias
Aeronauticas e Espaciais
c/o Instituto Superior Técnico
Av. Provesa Pais, 1069 Lisboa Cedex

Republic of Serbia
Serbian Aerospace Society
c/o Faculty of Mech. Engineering
University of Belgrade,
Kraljica Marije 16, 11120 Belgrade 35

Republic of South Africa
AESSA - Aeronautical Society of South Africa
P.O. Box 14717
Sinnoville 0129

Romania
Commission d'Aeronautique de
l'Académie de Roumanie
125 Calea Victoriei S.1
71102 Bucaresti

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ICAS Member Societies (3)

Russian Federation
TSAGI - Central
Aerohydrodynamics Institute
1, Zhukovskiy Street
Zhukovskiy
Moscow Region 140160

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-8032 Emmen

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 20091

ICAS Affiliated Societies

Taiwan, China
AASRC - Taiwan, China
c/o Center for Aerospace and Systems Technology, Rm 229, Bldg 52,
195-12 Sec. 4, Chung Hsing Rd. Chutung, Hsinchu,
Taiwan 310, China

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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

VZLU - Aeronautical Research and Test Institute
Bátarňových 130
19806 Praha - Letňany
Czech Republic

**ONERA - French Aeronautics and Space
Research Center**
BIF 72
93222 Chatillon Cedex
France

SAFRAN
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 Maforise
81043 Capua (Caserta)
Italy

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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

ILOT - Institute of Aviation
Al. Krakowska 110/114
02-256 Warsaw
Poland

CSIR - Defencetek
PO Box 335
Pretoria 0001
Republic of South Africa

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

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ICAS Associates (3)

**Russian Academy of Engineering
- Aerospace Section**
Novoposelkovaya street 6
125459 Moscow
Russia

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 Aircraft Company Inc.
6423 B Bryan Blvd.,
Greensboro, NC 27409
USA

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ICAS links & agreements with other organisations (1)

- ISABE (MoU)
- CEAS Agreement

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ICAS links & agreements with other organisations (2)

Example ISABE

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

Resulting in:

- ISABE sessions at ICAS congresses
- ICAS sessions at ISABE conferences

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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.

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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 Nice - France
1984 France - Toulouse	

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ICAS Congresses – some statistics (1)

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

(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

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ICAS Congresses – some statistics (2)

	2002	2004	2006
	Toronto	Yokohama	Hamburg
Number of Participants ⁽¹⁾ :	522 (+53)	570 (+80)	837 (+70)
Countries represented:	34	30	42
Abstracts received:	509	530	669
Papers in final programme ⁽²⁾ :	442	428	565
Accepted oral:	334	338	414
Accepted standby:	75	90	82
Accepted posters:	33	31	69

(1) Figure within bracket = accompanying persons

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

NOTE: Increase from 8 to 10 parallel sessions for ICAS 2006

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Topic Areas - ICAS 2008

- 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

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ICAS Workshops

In connection with ICAS Programme Committee meetings (odd years) a workshop with invited speakers is arranged. Themes of recent workshops has been:

- Towards a Global Vision for Aeronautics (2003)
- Towards a Global Vision on Aviation Safety and Security (2005)
- UAV-Airworthiness, certification and access to the airspace (2007)

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ICAS Honors and Awards

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

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Recent recipients of the von Karman Award

- 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)
- 2006: A-380 Programme
(France, Germany, Spain, UK)

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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)
- 2006 J. GREEN (United Kingdom)

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Recent recipients of the Award for Innovations in Aeronautics

- 2006 Robert H. Liebeck (USA) – first recipient
- 2008

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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

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ICAS Contact address

ICAS Secretariat
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SE- 16490 STOCKHOM Fax: +46-8.5550 3397
Sweden 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

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