

# The International Council of the Aeronautical Sciences (ICAS)

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A Descriptive Briefing

May 2004



# ***Mission***

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**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

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- ❑ 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***

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- 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***

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- 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***

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- **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***

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## **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)***

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### **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 (1)**

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## **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 VonKármán Institute for Fluid Dynamics  
Chaussée de Waterloo 72  
1640 Rhode - St. Genese

## **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  
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 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)**

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### **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 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

## **ICAS Member Societies (3)**

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### **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  
c/o Center for Aerospace and Systems Technology  
Rm 229, Bldg 52, 195-12 Sec 4, Chung Hsing Rd. Chutung,  
Hsinshu, Taiwan 310, R.O.C.

# **ICAS Associates**

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## **SAE – Society of Automotive Engineers**

400 Commonwealth Drive  
Warrandale, PA 15096-0001  
USA

## **The Boeing Company**

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

## **VKI- von Karman Institute for Fluid Dynamics**

Chaussee de Waterloo 72  
1640 Rhode-St. Genese  
Belgium

## **NLR- National Aerospace Laboratory**

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

## **FOI – Swedish Defense Research Agency**

SE-17290 Stockholm  
Sweden

## **National Chen Kung University**

Tainan, Taiwan

# ***ICAS links & agreements with other organisations (1)***

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

## ***ICAS links & agreements with other organisations (2)***

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### **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)***

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## **Extract from ICAS – CEAS Agreement**

- The objectives of this agreement are to provide a platform for future co-op-oration 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***

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



# ***ICAS Congresses – some statistics (1)***

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	<b>1998</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>
	<b>Melbourne</b>	<b>Harrogate</b>	<b>Toronto</b>	<b>Yokohama</b>
<b>Number of Participants:</b>	<b>554</b>	<b>505</b>	<b>575</b>	
<b>Countries represented:</b>		<b>30</b>	<b>34</b>	
<b>Abstracts received:</b>	<b>521</b>	<b>507</b>	<b>509</b>	<b>530</b>
<b>Papers in final programme: <sup>(1)</sup></b>	<b>313</b>	<b>359</b>	<b>442</b>	
<b>Accepted oral:</b>	<b>272</b>	<b>279</b>	<b>334</b>	
<b>Reserves:</b>	<b>26</b>	<b>45</b>	<b>75</b>	

(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)***

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## **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.

# ***Topic Areas - ICAS 2004***

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- 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***

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- 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***

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**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***

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**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

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- ❑ 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***

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## **ICAS Secretariat**

**Anders Gustafsson**

**c/o FOI**

**SE- 17290 STOCKHOM**

**Sweden**

**Phone: +46-8.5550 4229**

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**Fax: +46-8.5550 4201**

**Email: [secrexec@icas.org](mailto:secrexec@icas.org)**

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

## ***ICAS Website***

**[www.icas.org](http://www.icas.org)**

