

between ESA and the EU was crucial. A long-term plan for space projects was needed as well as a coherent approach to the military space activities. The Panel also stressed the importance of the recent EU decision on GALILEO, the European satellite navigation system, which will provide an alternative to the US-controlled GPS.

The Panel on Research & Technology Development (Chair: Mr. G. Chichester, MEP, Keynote Address Mr. R. Marimon, President-in-Office of the Research Council) agreed that more efforts in R&TD are needed in Europe to enable companies to compete on a level playing field in the world market. The long development cycles for today's aerospace programmes require high investments at an early stage which are only affordable with support from the EU and national governments. ACARE, the Advisory Council for Aerospace Research in Europe, established in 2001, is playing a major part in establishing a Strategic Research Agenda which will serve as a guide in the planning of future research programmes at EU and national levels.

• Commissioner Liikanen, in his closing speech on the first day of the conference, said that "the Commission has repeatedly acknowledged the strategic role that the aerospace industry plays in Europe with regard to meeting both our economic and our security objectives", and that "it acts as a driver of innovation and guarantees global competition in important market segment". Furthermore he pointed out the importance of STAR 21, the Advisory Group on Aerospace which was set up in 2001. "The composition of the Group again expresses the strong commitment of EU policy makers, who are discussing the need for even more coherence in the actions of all aerospace players – industry, Member States and European institutions – to optimise the overall framework for aerospace. The STAR 21 report should become a reference point for future discussions about aerospace in Europe". ■



28TH EUROPEAN ROTORCRAFT FORUM ORGANISED BY THE ROYAL AERONAUTICAL SOCIETY IN BRISTOL, 17-20 SEPTEMBER 2002 - by Tim Cansdale

The 28th European Rotorcraft Forum was held in Bristol, England in September last year. The event was organised by the Royal Aeronautical Society and was chaired by Mr Tim Cansdale from the UK Ministry of Defence Science and Technology Laboratory.

The European Rotorcraft Forum (ERF) was initiated in 1976 by Professor Ian Cheeseman of Southampton University and fellow rotorcraft enthusiasts within Europe, to establish a forum for exchange of helicopter knowledge and experience amongst the engineers and scientists of Europe. Initially the organisation involved 5 nations - UK, France, Germany, Italy and the Netherlands - to be joined in 1996 by Russia. The forum in Bristol followed a successful event in Moscow in 2001.

ERF history

The ERF is unusual amongst such major international events in that it has no permanent host organisation; all responsibility for staging each year's event, including financial, lies with the host nation and for the UK this task has been undertaken by the RAeS since the 16th forum in Glasgow in 1990.

Over the years, the ERF has grown to attract a worldwide attendance, with particular support from the USA. A strong relationship has been established with the American Helicopter Society which holds its own equivalent annual forum and for many years a reciprocal arrangement has been in place for the author of the paper judged as "Best Presentation" at the ERF to be sponsored to present his paper at the next AHS forum, with a reciprocal arrangement for the AHS "Best Presentation".

Attendance of ERF 2002

The Bristol Forum drew an attendance of around 200 delegates, representing 15 nations. The opening session started with a welcome address by Mr Lee Balthazor, the President of the RAeS, who drew attention to the long association of the City of Bristol with engineering advance, including the outstanding innovative contribution of Brunel, and more recently in the field of aeronautics. He was followed by four keynote speakers: Grp Capt Simon Bollom, the UK MoD's Director of Equipment Capability for Tactical Mobility, described the way in which military helicopter operational requirements are developing and the demands that this will place for advances in technology; Lord Glenarthur, chairman of the European Rotorcraft Association, gave his highly perceptive view on the factors influencing the current civil helicopter scene and the ways in which technical advances could assist in the

expansion of the civil business; Mr Alan Johnston, Managing Director of Westland Helicopters Limited, presented an industrial perspective; and finally, Mr Rhett Flater, President of the American Helicopter Society, gave a fascinating presentation on the potential role of rotorcraft in disaster relief, drawing lessons from experiences of the events of 11 September in New York.

Presentation and visits

Following this opening, some 90 papers were presented by representatives of 11 nations. Although these covered the full field of rotorcraft science, technology and operations, it is notable that, as in previous years, there was a predominance of papers in the traditional sciences such as aerodynamics and dynamics, whereas one of the common themes from the keynote speakers was the need for a broader approach to technology to address issues such as cost reduction, reliability, 24 hour all weather operations and operation in the worldwide environment.

On the final day of the forum, industrial visits were arranged to Westland Helicopters at Yeovil and Rolls Royce at Filton. Delegates also had the opportunity to visit the renowned Helicopter Museum at Weston-Super-Mare.

Conclusion

As with all such conferences, much of the value lies in the interactions outside the formal presentations, facilitated by the social programme- A relaxed reception was held on the first evening in the Bristol Industrial Museum, in the heart of the historic Dockland, and a dinner was held in the "Explore@Bristol" centre which allowed delegates and their guests an hours "playtime" amongst the interactive science and technology display, followed by a barbecue dinner with a traditional jazz band. A highlight of this dinner was to welcome the ERF founder, Professor Cheeseman to whom a presentation was made. At the dinner, the Forum Chairman formally handed over responsibility to Mr Bernd Gmelin of DLR in Germany who now has the task of staging the 29th ERF in Friedrichshafen on 16-19 September this year. ■

For further information :
Conference Department
Royal Aeronautical Society
4 Hamilton Place
London W1J 7BQ

Tel.: + 44 (0)20 7670 4300
Fax: + 44 (0)20 7670 4349
conference@raes.org.uk
www.aerosociety.org.uk

editorial

A QUARTERLY NEWSLETTER FOR THE CEAS

In March 2000, the CEAS signed an agreement with the Elsevier publication « Air & Space Europe » under which the Confederation would become an active partner of the latter. The agreement entered immediately into effect and worked very well, encouraging the hope that 'Air & Space Europe' was going to play the role of a decisive catalyst in the continuing development of our Confederation. However, this hope suffered a serious setback in mid-2001 when continuing financial losses led the publisher to conclude that publication of 'Air & Space Europe' should be terminated. The Council deeply regretted that conclusion but of course understood it.

On the occasion of our Council's meeting on 27 May 2002 in Brussels, the decision was taken to undertake the creation of a CEAS Quarterly Newsletter because we have arrived at a point in the development of the Confederation where we need a communication tool, a link between the roughly 25,000 members who form altogether our community. The CEAS is proud today to present the first Quarterly Newsletter as an instrument to promote the communication among its members and drive forward the goals and vision of aerospace.

Elsevier management has kindly agreed to authorize us to use the title of their previous magazine, so that our Newsletter is named :

AIR & SPACE EUROPE

The Quarterly Newsletter of the CEAS

We start this publication limiting ourselves to six pages per quarter, which will oblige us to operate a very careful selection of the matter to be published. We will concentrate mainly on the CEAS activities and achievements (fora, conferences, workshops, etc), aerospace news coming from the various

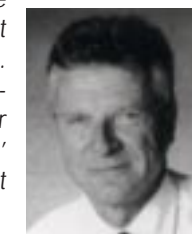
European Institutions (European Commission, Eurocontrol, AECMA, OCCAR, ESA,...) and the CEAS forthcoming event calendar.

Jean-Pierre Sanfourche (F), Director Delegate of the AAAF and Hywel Davies (UK), former Deputy Director General for Research in the European Commission are the edition co-ordinators of the Newsletter. They will work in close cooperation with the National Member Societies' representatives.

The present issue Number One marks an important milestone in the life of the CEAS and as the current Chairman, it is my firm intention to facilitate the work of the editorial committee and to give all necessary impulses and encouragements in order that this new endeavour turns rapidly into an unambiguous and durably successful CEAS link bulletin.

Aeronautics and Space is a global business in which Europe is one of the dominating players. The CEAS mission, bringing together the European Aerospace societies and its professionals, is highly dependent on information and communication. As said Voltaire «nothing can be done without a little enthusiasm». With the right spirit and the support of the CEAS members, we can envisage a gradual growth and, why not at a mid-term horizon, a high standing quarterly review ?

In advance, I wish to thank very much all the persons who will contribute to the success of this ambitious project.



Joachim Szodruch
Chairman of the CEAS

Joachim Szodruch, born on 20 th September 1945 in Ebingen, Germany, graduated from the Technical University Berlin in 1971 followed by post-graduate study at Cambridge University, England.

He started his professional career in 1973 as a scientific assistant at the Aerospace institute of the Technical University Berlin where he obtained his doctorate (Dr.-Ing.).

In 1978 he received an Associateship from the National Research Council and worked for two years at the NASA Ames Research Center.

In 1981 he joined MBB Civil Transport Division in Bremen where he started in experimental aerodynamics, working on A310 and future projects. Later he became responsible manager for all aerodynamic research and was Assistant Chief Aerodynamicist.

He joined Airbus Industrie in Toulouse, in 1990, as a General Manager for Research & Technology.

Returning to Germany he became Vice President, Product Development and Technology, at the Daimler Chrysler Aerospace Airbus Headquarter in Hamburg.

With the formation of Airbus as an integrated company in mid-2001 he was appointed Vice-President Research and Technology based in Toulouse.

Since August 2002 he is a member of the Executive Board of the German Aerospace Center responsible for aviation and energy.

He also is President of the DGLR, current President of the CEAS and serves as a member of the Advisory Council for Aeronautical Research in Europe (ACARE) as well as the Chairman of the External Advisory Group (EAG) for Aeronautics.

Joachim Szodruch
DLR/ Köln
joachim.szodruch@dlr.de

WHAT HAPPENS NEXT IN THE EUROPEAN AEROSPACE FIELD ?

by Ulf Olsson

SIXTH FRAMEWORK PROGRAMME LAUNCHED IN BRUSSELS

On 11 November in Brussels, European Research Commissioner Philippe Busquin opened the biggest conference on EU research ever held in Europe. With more than 9,000 participants and 200 speakers the three-day event (11-13 November) marked the launch of the new EU Research Framework Programme (FP6 2003-2006), with the first calls for proposals to be published shortly.

The FP6 with a budget of € 17.5 billion (2003-2006) falls in the wider context of the "European Research Area", the ultimate goal of which is to implement a genuine research strategy instead of the mere addition of fifteen national policies with the inevitable associated duplication and dispersion. One of the novelties introduced through the FP6 is scope for the candidate countries to participate in the programme in the same grounds as the Member States.

The new programme will also have a somewhat wider range of instruments than the Fifth Framework Programme (FP5). It now contains a mix of the "new" instruments driven by the concepts of the European Research Area (ERA) and of the more "traditional" instruments similar to those in FP5.

The new instruments are:

- «Integrated Projects» partially replacing the «Technology Platforms» of FP5, «Networks of Excellence» aimed at creating an integration of research capacities;
- Initiatives for the joint implementation of national programmes referring to «Article 169» of the EU's Rome Treaty.

These «new» instruments, notably the integrated projects and the networks of excellence, are characterised by their capacity to mobilise the critical mass of expertise needed to achieve ambitious objectives. They are also characterised by the structuring and integrating effects that they will have on the fabric of European research.

NEW PERSPECTIVES IN AERONAUTICS AND SPACE

«Aeronautics and Space» is one of the seven priority areas in FP6 with a budget of € 1075 million. The aim of the programme in this area is to consolidate, by integrating its research efforts, the position of the European aeronautics and space industry vis-à-vis increasingly strong competition especially from the US, which now spends between three and six times as much on aeronautics research. It should also help exploit the potential of research in the Member States, candidate countries and other associated countries in this sector. Specific aeronautics research was funded for the first time by the EU in the FP2 (1990-1991) with € 35 million. The amount of funding has since been raised successively reaching € 1075 million for aeronautics and space combined in the FP6 now to be launched (Fig. 1).

A STRATEGIC RESEARCH AGENDA FOR THE NEXT 20 YEARS

In 2000 European Commissioner Philippe Busquin invited a Group of Personalities to set out an ambitious vision for the future of aeronautics over the medium to long-term. Their report «European Aeronautics - a Vision for 2020», based on a report by the EU Advisory Group for Aeronautics, was published in early 2001. Vision 2020 recommended the formation of an Advisory Council to develop a Strategic Research Agenda (SRA) to realise the main goals of Vision 2020. This Advisory Council for the Aeronautical Research in Europe (ACARE) was formed in mid 2001.

The first year of work of ACARE

ACARE presented the findings of its first year of work in a comprehensive Strategic Research Agenda (SRA) during the FP6 conference in Brussels. It is the first time in EU history that government representatives, industry and research have jointly developed and endorsed a R&D plan for the aeronautics sector. The SRA is the product of hundreds of contributors from across Europe and ACARE has drawn upon the best expertise to make credible statements of what is needed, and why, in a coherent and comprehensive form.

The report addresses the challenges that aviation faces in the age of sustainable growth. In spite of the events of 11 September 2001, air traffic will continue to grow. This will increase noise, emissions, congestion, delays and inconvenience. The Strategic Research Agenda aims to optimise research efforts to make air travel safer, cleaner, quieter, more affordable and more secure. The Agenda calls for an overall research investment of up to € 100 billion over 20 years. It also makes a case for joint research projects with technology integration platforms for testing and adopting new technologies and for an educational system capable of delivering the required diverse and multi-cultural skilled research workforce.

Subsequent editions will probably appear at 2-3 year intervals. ACARE is confident that the SRA will provide a firm foundation for the fulfilment of European aspirations for sustainable long-term global aerospace leadership.

What are the overall aims of the Aeronautics and Space programme ?

Aeronautics

The overall aims of the Aeronautics Programme (see Table 1) are to:

- strengthen the competitiveness of the aeronautics industry;
- improve the environmental impact with regard to emissions and noise;
- improve aircraft safety and security;
- increase the operational capacity and safety of the air transport system so that airspace and airports will be able to accommodate rising traffic without undue delays.

Space

The Space part of the work programme aims to enhance the benefits of space applications for European citizens by focussing on:

- Earth Observation and other data collection sensors (in-situ and airborne) to serve the Global Monitoring for Environment and Security (GMES) initiative;
- Satellite communications as additional capabilities to complement ground communications particularly in the GMES context;
- Positioning/navigation/timing systems of the Galileo programme.

The first FP6 call has been launched on 17 December 2002.

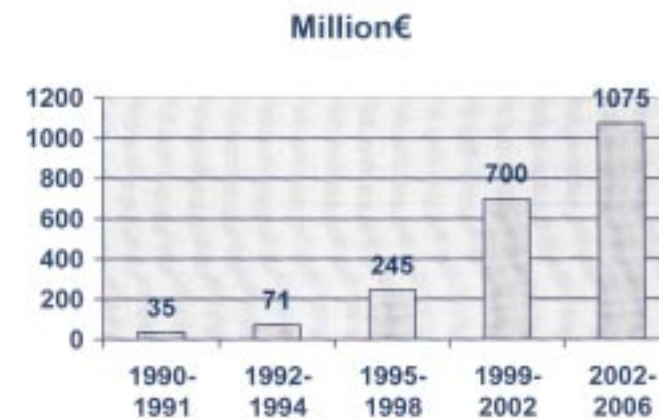


Fig. 1 : Evolution from 1990-1991 (FP2) to FP6 (2002-2006), of the Aeronautics Research funding.

ON 28 AND 29 MAY 2002 IN BRUSSELS, THE FIRST «EUROPEAN AIR & SPACE CONFERENCE»

by Shirley Compard (AAAF) and Marc Haese (AECMA)

The conference, jointly organised by AECMA, CEAS (Confederation of European Aerospace Societies) and AAAF (Association Aéronautique et Astronautique de France) with the participation of EUROSPACE (Association for the European Space Industry) took place in Brussels on 28 and 29 May 2002. It brought together some 300 high-level representatives and experts from the EU institutions, the aerospace industry and aviation bodies from all over Europe, including Jean-Paul Béchat, AECMA President and CEO, SNECMA ; Commissioner Erkki Liikanen, and Ramon Marimon, the Spanish Secretary of State for Science and Technology and President-in-Office of the Research Council. In a plenary session on the first day the broad political and strategic lines were discussed, whereas on the second, experts were given the opportunity to delve into technical detail related to various sectors of aerospace.

Aerospace in Europe is currently the target of promising strategic initiatives. However, in all its sectors, such as civil aviation, defence, space and research & technology development, more coherent policies and concerted actions are necessary in order to enable companies to successfully compete on the world markets.

In his keynote address, Jean-Paul Béchat stressed that the customers of the manufacturing industry "are presently staggering under the blow of September 11th events, and this blow has strongly affected our industry as well". In addition to that he said that "to provide even more affordable, competitive and environmentally friendly aircraft, a continued effort in research will be required in the years to come. Our US counterparts get strong support from their government to finance their R&D - almost 3 times ours. If we are to compete with them on a level playing field, a similar support should be available in Europe to partly fund the 100 bn Euro that R&D will need over the next 20 years, as quoted by the High Level Group chaired by Commissioner Philippe Busquin in 2000".

- The Panel on Civil Aviation (Chair: Mrs. J. Foster, MEP; Keynote Address by Mrs. F. Mascardi, European Commission, Cabinet de Palacio) recognised that the aviation sector was only gradually recovering from the September 11 events which resulted in the greatest losses ever for the European airlines. But although the negative impact may last until 2003, the traffic is expected to treble by 2020. Moreover, new considerations of

Table 1. The overall aims of the "FP6" aeronautics programme

FP6 research area	Objectives
Strengthening competitiveness	<ol style="list-style-type: none"> 1. Reduce aircraft development costs by 20% and 50 % in the short and long term (5-10 and 15-20 years) respectively. 2. Reduce aircraft operating costs by 20% and 50 % in the short and long term respectively. 3. Increase passenger choice with regard to travel costs, time to destination, on-board services and comfort.
Improving environmental impact with regard to emissions and noise	<ol style="list-style-type: none"> 1. Reduce CO₂ emissions (and thus fuel consumption by 50% per passenger-kilometre in the long-term). 2. Reduce NO_x emissions by 80% 3. Reduce unburnt hydrocarbons and CO emissions by 50% in the long term. 4. Reduce external noise by 4-5 dB and by 10 dB per operation in the short and long term respectively.
Improving aircraft safety and security	<ol style="list-style-type: none"> 1. Reduce the accident rate by 50% and 80% in the short and long-term respectively. 2. Obtain a 100% capability for avoiding or recovering from human errors. 3. Mitigate the consequences of survivable aircraft accidents. 4. Reduce significantly hazards of on-board hostile actions while in flight.
Increasing the operational capacity and safety of the air transport system	<ol style="list-style-type: none"> 1. Improve today's safety levels by providing better information to both the pilot and the controller on surrounding traffic; 2. Increase system capacity to safely handle three times more air movements by 2020. 3. Achieve an average maximum delay of one minute per flight. 4. Maximise airport operating capacity in all weather conditions.

aviation safety and security as well as the environmental impact of aviation call for full integration of all relevant policies and a coherent legislation. The Panel welcomed the developments related to the Single European Sky and urged the Commission to persevere with its initiative to replace the current ATM system.

- The Panel on Defence (Chair: Mr. R. Leray, European Commission; Keynote Address by Gen. R. Romano, Chairman of WEAG) noted that although there is no common armaments policy in the EU as yet, industry has already restructured, but now needed a framework in which to develop, comparable to that in the US European governments must harmonise their requirements and procurement. A significant improvement in defence R&TD investment was needed within the framework of an action plan linked to the ECAP, the European Capability Action Plan. Speakers also recognised the need to build partnerships, rather than separate fortresses, with the United States, but regretted that the access to the US market is still difficult - and getting more so since September 11 - for European companies.
- The Panel on European Space Policy (Chair: Mr. G. Savary, MEP Keynote Address by Mr. A. Mitsos, Director General for Research, European Commission) welcomed the heightened awareness of the importance of a European space policy for the future of the continent, but recognised that time was of the essence in giving the concept a treaty definition and creating a sound industrial basis at home before engaging in international cooperation and global competition. Strong partnership

THE LIFE OF THE CEAS

by Ulf Olsson

EUROPEAN RESEARCH CONFERENCE 2002 AEROSPACE DAY ENDED IN STYLE

On 12 November 2002, following a morning session that featured the presentation of the highly anticipated Strategic Research Agenda by the Advisory Council for Aeronautics Research in Europe (ACARE), Commission Director for Aeronautics and Space Jack Metthey introduced a high-flying panel of aerospace experts for a stimulating discussion on the opportunities and challenges facing the industry. The opening featured charismatic ACARE Chairman and President of the Helmholtz Association Walter Kröll.

Facing the future now

Prof. Dr. Kröll has been a driving force behind much of the work undertaken in recent years in the co-ordination of European aeronautics strategy. "Future success cannot be assured under present arrangement," he said. "What we need are changes in existing technologies, structures and mechanisms, but also in mentalities. We must learn to rank our common advances above national interests." Space research went centre stage as European Space Agency (ESA) Director-General Antonio Rodotà took the floor. As with aeronautics, space has seen a number of recent initiatives aimed at integrating research efforts, including the creation of a Joint Task Force charged with implementing the European Strategy for Space, developed by the European Commission and ESA. "Space is no longer a new frontier," he said. "More and more it is playing a part in our daily lives. Space can now answer real needs of European citizens, but we have to work closely together, ESA and the Commission to demonstrate this to the public."

The presentation of the prestigious CEAS Award to space pioneer Frederik Engström



The highlight of the session came when Fedde Holwerda (pictured right), President Elect of the Confederation of European Aerospace Societies (CEAS), presented Frederik Engström, former director of

launchers of the European Space Agency, in recognition of his outstanding contributions to the European space programmes. In his acceptance speech, he said: "When I launched my first rocket back in the early sixties, space was an adventure. Today, it is still an adventure, but it is also big business."

REPORT FROM THE CEAS COUNCIL MEETINGS HELD IN 2002

• At the 30th Meeting of the Council on 22 February 2002 in Lucerne, the Presidency of the Confederation was passed from Italy to Germany and Dr Joachim Szodruich is now the president of CEAS.

It was decided to start a newsletter to be circulated to the members of each of the CEAS Society based on four edition a year.

• At the 31st Meeting of the Council held 27 May in Brussels, Vice-Presidents were appointed with the following areas of responsibility:

- Vice-President - Technical Programmes Professor Ian Poll
- Vice-President - Awards and Publications Dr Ulf Olsson
- Vice-President - External Affairs Dr Jean-Michel Contant

It was also decided that the CEAS Council should organise a biennial European Air and Space Conference in Brussels with this conference being pitched at a strategic level and focussing on political/economic/social issues.

• At the 32nd Meeting of the Council held on Friday 1st november 2002 in Cambridge, United Kingdom :

- Mr. Contant, Vice-President External Affairs, reported that the European Air and Space Conference 2002 had taken place in Brussels immediately after the previous meeting.

He reported that the AAAF was organising a conference on 12-14 June 2003, immediately prior to the Paris Airshow at Le Bourget, on the topic of Information Technologies (ITs) at the Heart of the Aeronautical Systems. It was said that the CEAS should be closely associated to this event.

It was agreed that AAAF should run the conference in Brussels in 2004. In addition, it was agreed that Professor Poll should identify those topics that are likely to become significant in the next 2-3 years and may provide possible subjects for future European Aerospace Conferences.

- Mr. Olsson, reported a revised protocol for the CEAS gold metal. It was agreed that the revised protocol would be used for the 2003 Award. The closing date for nominations for the 2003 should be set for 1st February 2003 and all Societies were requested to submit nominations.

CEAS Vice-President, Technical Programmes

Professor **Ian Poll**
Head - College of Aeronautics
Cranfield University
Cranfield - Bedfordshire
MK43 OAL • U K
Tel: + 44 1234754749
Fax: + 44 1234751640
d.i.a.poll@cranfield.co.uk


CEAS Vice-President, Awards and Publications

Dr **Ulf Olsson**
Vice-President, Technology
Volvo Aero Corporation
Trollhärta • Sweden
Tel: + 46 520 94468
Fax: + 46 520 98538
Ulf.Olsson@Volvo.com

CEAS Vice-President, External Affairs
Dr **Jean-Michel Contant**

Executive Manager, EADS-LV
Vice-President, AAAF
66, route de Verneuil - BP 3002 - 78133
Les Mureaux Cedex
Tel: + 33 (0)1 39 06 37 62
Fax: + 33 (0)1 39 06 25 46
jean-michel.contant@launchers.eads.net.fr

CEAS EVENT CALENDAR

Date	Location	Organising society	Event and theme
4-6 June 2003	AMSTERDAM	NVL	International Forum <i>Aeroelasticity and Structural Dynamics</i>
10-12 June 2003	LONDON	RAeS	Conference <i>Aerodynamics Research Conference</i>
12-14 June 2003	PARIS - NORD Villepinte and LE BOURGET (Musée de l'Air et de l'Espace)	AAAF / CEAS	International Conference STIC-AERO' 2003 <i>Information Technologies at the Heart of Aeronautical Systems</i>
 <ul style="list-style-type: none"> • As a preview to PARIS AIR SHOW'2003 • On the occasion of Aviation's Centenary <p>Main objectives:</p> <ul style="list-style-type: none"> • To assess the ground covered since 1953 and thereby identify the revolution created in aviation by electronics and computer developments, and more generally, by information and communication technologies. • Through prospective thought about the probable coming scientific and technological advances and also on future operational needs, to identify the most promising leads in the aviation world for the use of information and communication technologies (ITs). • Through a summary, to highlight top priority Research and Technology Development programmes with a view to preparing for the future on a 2020-2030 time horizon. 			
16-18 Sept. 2003	FRIEDRICHSHAFEN	DGLR	Forum <i>29th European Rotorcraft Forum</i>
15-17 Oct. 2003	ROME	AIDAA	Forum <i>Virtual Engine. A challenge for Integrated Computer Modelling</i>
TBD		AIDAA	Forum <i>Icing Problems</i>
TBD		DGLR	Forum <i>Future ATM Concepts</i>

► The dual civil/military aspect will determine the spirit of the STIC-AERO Conference, which will be essentially technological and future-oriented.

► The intention is to give this event a European perspective, whilst also opening it up to the whole world. Led by Session Chairmen and Speakers of different nationalities, it will make possible extended exchanges of view, thanks to many panel discussions.

For further information, please contact :
Jean-Pierre Sanfourche
AAAF/SEE Congress Dept. - 17, rue Hamelin
75783 Paris Cedex 16 - France
tel.: +33 (0)1 56 90 37 09
fax: +33 (0)1 56 90 37 19
aaaf.stic-aero@see.asso.fr
www.stic-aero.org

EDITORIAL BOARD

Director of the Publication

• Dr Ulf Olsson

Edition Coordinators

• Dr Hywel Davies
52 Britain Lane
Sevenoaks
TN13 2JP • UK
Tel/Fax: + 44 1732 456 359
hyweldavies@aol.com

• Dr Ing. Jean-Pierre Sanfourche
Director Delegate, AAAF
61, avenue du château
F-78480 Verneuil-sur-seine
Tél.: + 33 (0)1 39 79 75 15
secrexec@aaaf.asso.fr

Edition

Sophie Bougnon
26, rue de Crussol • 75011 Paris
soboo@club-internet.fr

CEAS National Member Representatives

Germany
Dr.-Ing. Holger Friehmelt
DLR e.v.
Lilienthalplatz 7 • 38108 Braunschweig
Tel.: + 49 (0)531/295-2650
holger.friehmelt@dlr.de

Italy
Prof. Antonio Castellani
AIDAA General Secretary
Via Ravenna 9b
00161 Rome • Italy
Tel.: + 39 06 44 041 44
info@aidaa.it

Spain

Emilio Blanco
Emilio.Blanco@casa.eads.net

Sweden

Lars Andersson
Kammakargatan 52 • 11160 Stockholm
Tel: + 46 8 791 84 91
Ftf@mailbox.swipnet.se

United Kingdom

Andrew Little
RAeS • 4, Hamilton Place
London W1J7BQ
Tel.: + 44 (0)20 76 70 43 11

Secretary

Elisabeth Ortega
AIAE • Hermosilla, 30, 1er piso
28001 Madrid • Spain
Tel.: + 34-609004386
Elisabeth.Ortega@airbus.com