



## **Message from the President of the International Council of the Aeronautical Sciences**

It was with great pleasure that the International Council of the Aeronautical Sciences accepted the invitation from the American Institute of Aeronautics and Astronautics (AIAA) to come again to the USA to hold the 26<sup>th</sup> ICAS Congress in Anchorage 14 – 19 September 2008. This year ICAS will celebrate its 50<sup>th</sup> anniversary and we invite you to participate in this great event.

At the inaugural meeting of ICAS in 1957, the vision set out by Theodore von Karman and the Founding Fathers was that the ICAS Congress should provide aeronautical scientists and engineers from all over the world with a forum in which they could meet to learn about new discoveries in aeronautical science, technology and products, exchange ideas and experiences and develop a friendly professional network free from cultural, political and ideological constraints. For 50 years ICAS has served that vision well and over the years ICAS has increasingly established itself as the foremost international forum for aeronautical science and engineering. Today, special attention is being given to students and young engineers and scientists, and the opportunity that the ICAS Congress provides for them to meet with colleagues from all over the world. Also, due to the increasingly global nature of our industry and the increasingly international nature of all aspects of aeronautical products, from research through development, production, operations, training and maintenance, the ICAS Congress provides opportunities for scientists and engineers, researchers and designers, manufacturers and managers, and university faculty and students from all over the world to share ideas and technical information, and to build relationships that are important to the globalization of our profession and our aeronautics industry.

The global changes in the structure of the industry along with new priorities in R&T topic areas such as information technology, electronics, micro-systems and “system of systems” solutions are challenges for our established scientific and engineering community. The ICAS Executive Committee and the Programme Committee are seriously watching these changes and are adjusting to both today’s and future requirements to support a healthy collaboration between academia, research and industry.

The Call for Papers for the 26<sup>th</sup> Congress attracted over 650 submissions from around 40 countries. From these, the ICAS Programme Committee, chaired by Ian Poll of UK, had the difficult task of selecting about 350 papers for oral presentation. Furthermore the 8<sup>th</sup> AIAA Aviation, Technology, Integration, and Operations (ATIO) Conference will be fully integrated with the ICAS 2008 programme. This has resulted in two additional session tracks with papers related to these topic areas. In total about 470 papers will be presented orally together with a good number of poster presentations. The total programme contains more than 650 papers (oral, standby and poster). The caliber of the authors and the quality of their submission were well up to the high standards set by previous ICAS Congresses and, as is evident from the programme set out in the following pages. ICAS 2008 promises to be a highly stimulating and rewarding event.

Anchorage - Alaska will provide a most attractive venue for the Congress and, on behalf of ICAS, I would like to thank the AIAA for undertaking the substantial organizational task that is entailed in hosting this event. I would also like to extend my grateful thanks to all authors who are sharing their work and ideas with us as well as to all session chairs who are bringing in their expertise. I have no doubt that, for everyone who participates in the 50 years ICAS Congress, it will be a meeting to remember.

*Fred Abbink, ICAS President*

## **Message from the President of the American Institute of Aeronautics and Astronautics**

I am delighted to invite you to participate in the 26<sup>th</sup> Congress of ICAS, to be held in Anchorage, Alaska, United States, 14-19 September 2008. The American Institute of Aeronautics and Astronautics (AIAA) is proud to host and organize this event on behalf of ICAS.

This Congress will commemorate the 50<sup>th</sup> anniversary of ICAS and will include AIAA’s 8<sup>th</sup> Aviation, Technology, Integration, and Operations (ATIO) Conference. We believe that the inclusion of ATIO with ICAS will make the program dynamic and appealing to a wide variety of attendees. We estimate 800 to 1000 aerospace engineers, enthusiasts, and leaders will be attending this conference from around the world, making this one of the premier “international” professional conferences for technical exchange and for networking.

Alaska is a great state to host the Congress - it has about one registered pilot for every 58 residents, six times as many pilots and 14 times as many airplanes per capita as the rest of the United States. The Congress will be held in the downtown city of Anchorage, Alaska. With 277,000 inhabitants, it is the largest city in Alaska with 42 percent of the state’s population. Alaska is actually the northern, western, and easternmost point in the United States. Alaska has activities for everyone that include fishing, kayaking, camping, glacier cruises, exquisite hiking trails, shopping, gold panning, river rafting, bear viewing, and so much more! I encourage you all to bring your families, as there is much to do and see.

*George Muellner, AIAA President 2008-2009*