

Welcome from the President of the International Council of the Aeronautical Sciences



On behalf of the International Council of the Aeronautical Sciences (ICAS), I welcome you to the 29th ICAS Congress. In the 57th year of this remarkable organisation founded

by Theodore von Kármán and his international colleagues, the congress will be held for the first time in Russia. It is a significant undertaking to stage the world's pre-eminent forum for aerospace engineers, scientists, technologists and managers, and ICAS is grateful for the efforts of its Russian colleagues, who are backed by TsAGI - the Central Aerohydrodynamic Institute. Founded by Nikolai Zhukovsky in 1918, TsAGI continues to this day to provide leadership in aeronautical research and technology, and also formally represents Russia at ICAS.

I am pleased to report that the international aeronautical community continues to build on the impressive heritage of ICAS, making its mission even more relevant to the global aerospace and aviation industries today than ever before. This world congress staged biennially by ICAS is the key opportunity for those committed to serving those industries to meet, present, discuss and create opportunities that can only be done in such an international environment. The pace of technological development and diversity of business challenges facing those working in aeronautics continue to increase unabated, thus the truly

international and apolitical nature of ICAS is perfectly suited to support these global imperatives. Therefore, with seemingly limitless availability of unfiltered information from a diversity of sources, ICAS Congresses represent unique opportunities to learn and interact with the leaders in the field from more than 40 countries.

The foundations of the industry, the aeronautical disciplines of aerodynamics, control, structures and propulsion, always feature strongly, however every Congress brings new topics. The growth continues in air traffic management, manufacturing, safety, and the environment, as does the focus on unmanned air vehicles and operational challenges. The response to the Call for Papers was stronger than ever, which has made the work of the Programme Committee even more challenging. Since last year, the ICAS Secretariat and the Local Organising Committee have worked with panel coordinators, session chairs, paper authors to prepare an excellent technical programme. I wish to take this opportunity to acknowledge this outstanding work on behalf of ICAS and its more than 60 Member Societies and Associates.

It is with great pleasure that I welcome you to St Petersburg and I invite you to actively participate in this historic 29th ICAS Congress, making the most of the broad array of technical, networking and cultural opportunities prepared for you by a dedicated team of colleagues from all over the world.

Prof. Murray Scott
President, ICAS

Welcome from the Executive Director of the Central Aerohydrodynamic Institute



The 29th Congress of the International Council of the Aeronautical Sciences (ICAS) will be held in St. Petersburg on 7 - 12 September 2014 hosted by the Central Aerohydrodynamic Institute (TsAGI).

ICAS was established in 1957 as a non-government, non-profit scientific organization with the mission to advance knowledge and facilitate collaboration in aeronautics. Today ICAS brings together 32 states from five continents. Among ICAS members are major world aerospace companies.

One of the most important activities of ICAS is the organization of biennial international congresses. Since the first ICAS Congress in Madrid in 1958, it has grown to become the world's pre-eminent forum for aeronautics which attracts well-known specialists and leaders of top aerospace research centers, companies and universities. Up-to-date scientific achievements in aeronautics, priority projects to design new generation aircraft, development of research facilities and improvement of service system constitute important topics of the Congress and reflect the aspirations of the international

aeronautical community.

The ICAS 2014 Congress in St-Petersburg has attracted an unprecedented number of papers. More than 1000 delegates from 40 countries are expected to take part in the Event. For the first time in history, the ICAS 2014 Congress will be featuring a vast representation of the Russian aeronautical science: more than 60 aerospace organizations, research institutes of the Academy of Science and universities from various regions of Russia are sending their representatives to present papers at the Congress.

Support from government and private organizations is crucial to guarantee a world class scientific, business and cultural agenda, to provide an interesting program for young participants.

The Congress is a unique opportunity for companies to showcase their support for one the most research-intensive industries and the readiness to invest in the world intellectual potential as well as to demonstrate to the audience their professional capabilities and resources.

We look forward to welcoming you to ICAS 2014.

Prof. Sergey Chernyshev

Executive Director, TsAGI

Chair, ICAS 2014 Organizing Committee