

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

Since the last meeting of the ICAS community in 2010 in Nice, France, the demand for civil air - transport increased again. Military air systems have been deployed in many crisis areas around the world. For single aisle aircraft the integration of new engine options with less fuel consumption has been brought to the global market with record numbers in orders. The number of test-, or even regular flights, using alternative fuel from different sources is increasing and worldwide initiatives are active to foster the introduction of alternative fuels for aircraft. People engaged in those initiatives and developments are member of the ICAS community. Therefore, it is not by chance that the neutral stage provided by ICAS often produced the first real global view from different perspectives to the demanding challenges of aeronautics. Now in 2012, we continue in writing and communicating together a further chapter in the long ICAS history.

ICAS is delighted that the Australian Division of the Royal Aeronautical Society, in cooperation with the Institution Engineers Australia, is hosting the 28th ICAS Congress in Brisbane – Australia's "New World City". Located in sub-tropical South-East Queensland - the Sunshine State of Australia, Brisbane is the country's third-largest city. On behalf of the Council, I thank the hosts for accepting this substantial organizational task.

The ICAS Congress provides a unique, global forum for scientists, engineers, managers and students, from industry, government agencies and universities to meet, to learn, to debate and to share ideas and technical information. This helps to create a stronger international network, to develop a collective awareness of the most important issues and to build those relationships that are critically important to the success of our industry, the creation of new knowledge and the advancement of our profession. For those participating for the first time this year or simply want to learn more about ICAS, "Mentors" from the ICAS Program Committee are prepared to help on request for a personal introduction to the ICAS community.

The "Call for Papers" for ICAS 2012 produced a never seen before response with about 900 submissions coming from around 40 countries. The ICAS Program Committee carefully reviewed these abstracts and finally compiled an exciting program for Brisbane, including invited General Lectures on special topics. ICAS Award presentations, social events and time between the lectures will produce a frame for networking and join all participants as ICAS Family.

I express my thanks to all who contributed to the preparation of the 28th ICAS Congress: the authors and session chairs, who are bringing their expertise and sharing their ideas, the program committee and executive committee, the members of the council and especially the hosting societies and local organisers.

I wish to all that you will have outstanding professional and private experiences through your participation in the 28th ICAS Congress.

Detlef Müller-Wiesner, ICAS President

Welcome from the President of the Royal Aeronautical Society – Australian Division

I am very pleased to invite you to join us in Brisbane for the 28th Congress of the International Council of the Aeronautical Sciences on 23 – 28 September 2012.

ICAS 2012 promises to be a great event with a record breaking number of papers on a wide range of topics. The Congress will inform you about recent advances in aeronautical research and development and is an opportunity to network with researchers, industry executives and government officials from Australia and other parts of the world.

The Congress will be held at the Brisbane Convention & Exhibition Centre, located at Southbank on the Brisbane River. Brisbane offers a metropolitan atmosphere, but also provides easy access to Queensland's natural splendours, such as the Whitsunday Islands and the Great Barrier Reef, as well as other wonderful destinations in Australia.

I look forward to meeting you in September at the 28th ICAS Congress in Brisbane.

Andrew Drysdale, President RAeS Australian Division