Congress Program

Congress Theme
The theme for the Congress is "Building on History for the Future".

Call for Papers
The call for papers for the 14th Australian International Aerospace Congress is now closed.

Abstract for Papers to be Peer Reviewed Submission Closed at 5:00pm, 16 July 2010

Abstract for Papers NOT Requesting Peer Review Submission Closed at 5:00pm, 24 September 2010
(01 October for APISAT)

Program
AIA14 Congress Program will offer two days of sessions followed by a visit to AVALON 2011.

The Congress will incorporate the;
- 14th Australian Aeronautics Conference,
- 7th International Conference on Health & Usage monitoring (HUMS2011) and

On Thursday 3 March delegates will visit AVALON 2011 – Australian International Airshow and Aerospace & Defence Exposition.

Keynote Speakers
A variety of international speakers are currently being approached by the Organising Committee for the 14th Australian International Aerospace Congress.

Please click on "Keynote Speakers" for further information.

Presenter Log-in
Presenters can log-in to a password protected area to receive information relevant for their paper submission, presentations, poster displays and the key dates. Passwords are emailed to the submitting abstract author.

© 2011 14th Australian International Aerospace Congress 2011 | Site by Go4
14th Australian International Aerospace Congress incorporating:
14th Australian Aeronautical Conference
7th DSTO International Conference on Health & Usage Monitoring (HUMS2011)
3rd Asia-Pacific International Symposium on Aerospace Technology (AIPSAT 2011)

AIAC14 and its incorporated Conferences attracted 467 International and National delegation and provided significant technical and business opportunities for aerospace professionals worldwide.

We would like to take this opportunity to thank the Invited Speakers for sharing their time and expertise and to those who contributed to our stimulating program by making oral and poster presentations. We would also like to thank the delegates and Sponsors for their participation in making the AIAC14 Congress a successful one.

Once again we thank you and hope to see many of you at the 15th Australian International Aerospace Congress (AIAC15) in 2013.

14th Australian International Aerospace Congress CD of Proceedings
The AIAC14 Congress Committee has made available a CD of Proceedings for those who weren’t able to attend AIAC14 2011. Should you wish to purchase a copy of proceedings please complete the AIAC14 CD of Proceedings Order Form to obtain your copy.

Congress Co-Hosts:  Associated Event:

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Call for Papers

Key Dates
Call for Abstract Submission
Keywords/Topics
Paper Review Process
Congress Proceedings
Recognition of Best Papers
Oral and Poster Presentation Format
Speaker Registration
Contact Details

Key Dates
Abstract for Papers to be Peer Reviewed Submission Closes
16 July 2010
Abstract for Papers NOT Requesting Peer Review Submission Closes
24 September 2010
Abstract for Papers NOT Requesting Peer Review for APISAT 2011
01 October 2010
Submission Deadline for papers to be Peer Reviewed
01 October 2010
Early Bird Registration Closes
03 December 2010
Submission Deadline for papers that are NOT Peer Reviewed
03 December 2010
Speaker Registration Closes
20 December 2010
Final Submission Deadline for papers that have taken part in the
Peer Review Process
10 January 2011

Call for Abstract Submission
Members of the international aerospace community are invited to submit abstracts for proposed papers and
technical briefings that are consistent with the overall Congress theme and topic areas for the three conferences:

- 14th Australian Aeronautical Conference,
- 7th DSTO International Conference on Health and Usage Monitoring (HUMS2011) and

The papers may take the form of detailed Technical Papers discussing research results and other largely original
work, or papers of more general interest nature such as Technical Briefings on capability development programs
and new product developments.

If you wish to submit an abstract for consideration by the Program Committee, you must also intend to register for
the Congress. On-line submission is the only method of receipt of abstracts.

Abstract submission is a two step process:

STEP 1
Abstract template: download the abstract template, save it to your desktop and complete it:
- Use this template to present your abstract in the required format. Abstracts not submitted using this template
  will be returned for correction.
- Your abstract text should be no more than 500 words.
- Your abstract should clearly and concisely outline the CONTENT of the presentation and should include key
  points/ideas to be addressed.
- Delete all text in red when you have completed this template.
- After completing the abstract template, move onto step 2.

STEP 2
Online abstract submission form: to complete the online abstract submission form, the following information is
required:
- Your contact details
- The title of your abstract
- Nominate your preferred presentation format
- Keywords / topics

The Abstract Submission has now closed. Please contact the Congress Office if you have any queries.

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Keywords/ Topics

14th Australian Aeronautical Conference
7th DSTO International Conference on Health & Usage Monitoring (HUMS2011)
3rd Asia-Pacific International Symposium on Aerospace Technology (APISAT 2011)

Fourteenth Australian Aeronautical Conference
A joint event of Engineers Australia and the Royal Aeronautical Society, Australian Division
Chair: Dr Noel Marlin
Research Leader-Airborne Mission Systems, Air Operations Division, Defence Science and Technology Organisation (DSTO)

The technical program of the 14th Australian Aeronautical Conference will be a joint venture of Engineers Australia and the Royal Aeronautical Society, Australian Division. The Conference aims to present key innovations and achievements in aeronautical technologies and systems, and their current and future aerospace applications. This Call for Abstracts is seeking papers that will report on original work and state-of-the-art reviews that enhance knowledge of aeronautics in the broad areas of:

- Aeronautic Systems, Science, and Technology
- Applications of Aeronautic Systems or Technology to Military, Civil or Commercial Endeavours
- Aerodynamics, Flight Mechanics and Fluid Mechanics
- Aero Structures
- Material Sciences
- Combustion and Propulsion
- Navigation, Guidance and Control
- Avionics and Mission Systems
- Space Technologies and Systems
- Unmanned Aerial Systems
- Aging Aircraft, Cost of Ownership, and Sustainment
- Air Operations and Traffic Control
- System Engineering and Management for Science in the Aerospace Industry
- Government Policy that Directs or Drives Aerospace Programs, Systems, and Technologies.

Further topics of interest underpinning many of the above broad areas include, but are not limited to, modelling and simulation, training, support and maintenance, computer aided design and design optimisation, test and evaluation, experimentation, computer aided decision making, corrosion, fatigue, software engineering as well as the development and maintenance of flight critical software, automation and robotics, safety, security, regulation, qualification, and certification.

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Seventh DSTO International Conference on Health & Usage Monitoring (HUMS2011)
Organised by the Defence Science & Technology Organisation
Chair: David Forrester
Propulsion Systems Branch, Air Vehicles Division, Defence Science and Technology Organisation (DSTO)
Co-Chair: Graham Forsyth
Consultant and Founder of HUMS Conference for Defence Science and Technology Organisation (DSTO)

Increasingly, mechanical devices whether fixed systems, land vehicles, marine vehicles (including submarines) or aircraft (including helicopters), are being managed using various Condition Monitoring (CM) or Condition-Based Maintenance (CBM) approaches. All these approaches rely on health (condition) and usage monitoring systems and are most suited to ensuring availability, reliability and safety of critical and high-value assets.

Abstracts for HUMS2011 will be sought for, but not limited to, papers in topics:*

- Health/Condition and Usage Monitoring Strategies
- Condition-Based Maintenance
- Cost-Benefit Analysis
- Data Management
- HUMS Field Experience
- Monitoring Techniques for Propeller/Rotor Track and Balance
- Monitoring Techniques for Engine and Transmission Vibration
- Prognostics and Health Management (PHM)
- Structural Loads Monitoring
- Usage Monitoring

As these apply in areas such as:

- Helicopters
- Fixed-Wing Aircraft
- Land Vehicles
- Marine Vehicles
- Fixed Machinery
- Other or Multiple Areas

Third Asia-Pacific International Symposium on Aerospace Technology (APISAT 2011)
Chair: Dr. Professor Cee Bia
Chairman National Organising Committee (APISAT)
Royal Aeronautical Society Australian Division

The Asia-Pacific International Symposium on Aerospace Technology (APISAT) is an initiative by the Korean Society for Aeronautical and Space Sciences (KSASS), the Japan Society for Aeronautical and Space Sciences (JSASS), the Chinese Society for Aeronautics and Astronautics (CSAA) and the Royal Aeronautical Society Australian Division (RAeS Australian Division). For APISAT-2011, the host society is the RAeS Australian Division and the symposium forms part of the 14th Australian International Aerospace Congress. The symposium provides an opportunity for researchers from Asia-Pacific nations and other countries to present their achievements in aerospace R&D and to join us to reflect on aerospace matters concerning our region.

We invite papers that report on innovation, technical and scientific advances on topics that may include, but not limited to:

- Computational Fluid Dynamics
- Wind Tunnel Testing
- Flow Visualization
- Unsteady Aerodynamics
- Acoustics
- Aircraft, Helicopter and UAV Design
- Flight Simulation
- Navigation
- Guidance and Control
- ATM/CNS
- Sensors and Actuators
- Satellite Attitude Control
- Structural Analysis
- Structural Testing
- Smart Structures
- Composite Structures
- Structural Dynamics and Control
- Aeroelasticity and Control
- Combustion Analysis
- Fuel Injection
- Turbines
- Engines
- Cooling Systems
- Spacecraft Propulsion

Paper Review Process
Abstracts for proposed papers are due by 16 July 2010. Authors are requested to indicate, by clicking the appropriate box, which of the three respective conferences that they are submitting their paper to for consideration.

Authors will be notified of acceptance or rejection of their Abstract by the 13 August 2010.

Authors are requested to notify the respective Conference, by clicking the appropriate box, if they wish to have their full paper Peer Reviewed. Note that the deadline for peer reviewed papers is 01 October 2010. Reviewers feedback will be returned to the authors.

The paper template and on-line submission form can be downloaded from the Congress website. Incorrect formatting will not be accepted.

The final deadline for non-peer reviewed papers is 03 December 2010 and amended peer-reviewed papers is 10 January 2011.

Congress Proceedings
All papers, whether presented using the oral or poster format, will be included in the Congress Proceedings on CD-ROM. Papers that satisfy the Peer Review process will be indicated as such in the Congress Proceedings.

Recognition of Best Papers
Papers will be considered for the Conference Best Paper awards program. Selected Technical Papers will be recommended for inclusion in the Australian Aeronautics Journal, published by the Royal Aeronautical Society Australian Division.

Oral and Poster Presentation Format
The Congress will provide for both oral and poster presentation formats. Every effort will be made to fully integrate both presentation formats into the technical program. When submitting your abstract, you are invited to nominate a preferred presentation format by clicking the appropriate box, however the Program Committee reserves the right to decide on the format of presentation for each paper on the basis of time, space available and applicability to the Congress theme and Conference topics/keywords.

Speaker Registration
The invitation to submit an abstract does not constitute an offer to pay travel, accommodation or registration costs associated with the Conference. Similarly, no speaker fee is paid to successful participants.

All speakers must register for the Congress by Monday 20 December 2010. Speakers who are not registered by this date will have their paper withdrawn from the Congress and it will not be published.

Contact Details
For any enquiries regarding abstract submission please contact the Congress Office:

AIA.C14 Congress Office
Alison Armstrong
Program Coordinator
WALDRONSMITH Management
61 Danks Street West
Port Melbourne VIC 3207 Australia
Tel: +61 3 9645 6311
Fax: +61 3 9645 6322
Email: aiac@wsm.com.au

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### Monday 28 February 2011

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### Tuesday 01 March 2011

**OPENING PLENARY SESSION**

- Meeting Rooms 106 & 110
- Don Lowe
- Congress Opening Address
- The Right Hon the Lord Mayor Robert Doyle
- The Hon Warren Snowdon, Member for Langley
- Minister for Veterans' Affairs
- Minister for Defence Science and Personnel
- Minister for Indigenous Health
- Congress Plenary Address:
  - AWM Chris O'Dwyer
  - Defence Medical Organisation
  - AUSTRALIA
  - Managing Defence Programs - The Wedge Tail Experience

**Keynote Address 1**

- Meeting Room 105
- David Farrar
- Terry Scudder
- Defence Science and Technology Organisation
- AUSTRALIA

**Keynote Address 2**

- Meeting Room 106
- Ceas Bil
- Junieho Kawaguchi
- Japan Aerospace Exploration Agency
- JAPAN

**Keynote Address 3**

- Meeting Rooms 109 & 110
- Noel Martin
- Gerard Walles
- Open Systems Architecture, Strategy and Complexity
- Open Systems Architecture, Strategy and Complexity

**Break**

- Tea
1030 - 1200

**Session 1A**
- **101** Aerospace Design
  - Kevin Goldsmith
  - Dynamic Model of a Novel Ducted Fan Configuration
  - University Of Tokyo JAPAN

**Session 1B**
- **102** Population
  - Nigel Smith
  - Defence Science & Technology Organisation AUSTRALIA

**Session 1C**
- **103** Avionics
  - Paul Johnson
  - A Commaion of Positive Persuasion on Aerospace Engineering
  - University Of Tokyo JAPAN

**Session 1D**
- **104** CBM
  - Ian Jennings
  - University Of New South Wales AUSTRALIA

**Session 1E**
- **105** Helicopter Technologies
  - Albert Wang
  - Implementing Smart Test for the Next Generation of Helicopters
  - University Of New South Wales AUSTRALIA

**Session 1F**
- **106** UAVs
  - Matt Garrett
  - Introduction to UAVs and their Applications
  - University Of New South Wales AUSTRALIA

**Session 1G**
- **107** Structures
  - Brian Fawkes
  - Development of a Novel Material for Aircraft Structures
  - University Of New South Wales AUSTRALIA

**Session 1H**
- **108** Materials
  - Richard Chesters
  - An Innovative Approach to Aircraft Materials Development
  - University Of New South Wales AUSTRALIA

**Session 1I**
- **109 & 110** Aerospace Structures
  - Bruce Woodyatt
  - Aerospace Structures
  - University Of New South Wales AUSTRALIA

**Session 1J**
- **111 & 112** Aircraft Control
  - Farhan Faruki
  - Advanced Aircraft Control Systems
  - University Of New South Wales AUSTRALIA

1100 - 1300

**Session 2A**
- **111** Development of an Efficient Verification System for New Airplane Concepts
  - Gary Downes
  - CAE Aerospace Engineering Services AUSTRALIA

**Session 2B**
- **112** Approaches to Performance Evaluation of Airliner Systems Integration
  - Meri O'Neill
  - Defence Science & Technology Organisation AUSTRALIA

**Session 2C**
- **113** Automatic and Reliable Logic Simulation from the UAV to UAS
  - Nick Lenihan
  - University Of Southern Queensland AUSTRALIA

**Session 2D**
- **114** Precise Autonomous Aerial Photography System Integrated with UAVs and UGVs
  - University Of Southern Queensland AUSTRALIA

**Session 2E**
- **115** Filtering Methods to Determine Reliability of Aircraft System
  - University Of Southern Queensland AUSTRALIA

**Session 2F**
- **116** Design of a New Aircraft
  - University Of Southern Queensland AUSTRALIA

1300 - 1500

**Session 3A**
- **117** Improved Preliminary Singing Method for Optimal Aircraft Design Optimization
  - Dae-Sung Kwon
  - University Of Technology Sydney KOREA

**Session 3B**
- **118** Investigation of Multiple airliner Aircraft Concepts for the Next Generation
  - Seong Hoon
  - University Of Technology Sydney KOREA

**Session 3C**
- **119** A Terrain Following Navigation Algorithm Using Terrain Elevation Data
  - Kyoung Hee
  - RMIT University KOREA

**Session 3D**
- **120** Overview of In-situ Environmental Monitoring and Data Collection Systems for Aircraft Environmental Management
  - Andrew Schultz
  - Institute Of Aerospace Systems KOREA

**Session 3E**
- **121** Use of Artificial Neural Networks for Large-Scale Simulation
  - Catherine Ching
  - National Aeronautics Council Canada

**Session 3F**
- **122** Scientific Application and Design of a New Unmanned Aircraft System
  - Hyoung-Seok
  - Korea Advanced Institute Of Science & Technology AUSTRALIA

**Session 3G**
- **123** Shape Estimation Approach for the General Structure Based On The Movie Data
  - Hong-Geun
  - Korea Advanced Institute Of Science & Technology AUSTRALIA

**Session 3H**
- **124** Experimental Investigation of an Energy Absorbing Composite Sandwich Panel
  - Matthew Josteen
  - University Of New South Wales AUSTRALIA

**Session 3I**
- **125** On the Influence of the Effect of Natural Frequencies of the Structure
  - University Of New South Wales AUSTRALIA

Lunch

**1200 - 1300**

**Session 4A**
- **126** Keynote Address A:
  - Australian Ukrainian Society Industry
  - Australia

**Session 4B**
- **127** Keynote Address B:
  - Australian Ukrainian Society Industry
  - Australia

1300 - 1500

**Session 5A**
- **128** Meeting Room 100
  - Ken Anderson
  - NASA Langley Research Center
  - New Building Blocks for Aerospace: Advanced Materials and Processing Technologies

**Session 5B**
- **129** Meeting Room 110
  - Mark Stuart
  - NASA Langley Research Center
  - New Building Blocks for Aerospace: Advanced Materials and Processing Technologies

**Session 5C**
- **130** Meeting Room 101
  - David Graham
  - Australia
  - Addressing the Current and Future Challenges of Space Safety
### 1340 - 1340

#### Session 2A
- Room: Space
- Chair: Ian Tddy
- Presentation:
  - SCRAMSPACE: Supersonic-based Access-to-Space Systems
    - Russell Boxx
    - University of Queensland, Australia
  - Numerical Characterization of Aerodynamics
    - Michael Mathews
    - University of Queensland, Australia
  - Multi-core CPUs for Mission Computing and Software
    - Ji-Hyea Yang
    - KAIST, Korea
  - Super Horos: F101
    - Andrew Elliott
    - Defence Science & Technology Organisation, Australia
  - Implementation of Structural Health Monitoring Systems
    - Matthew Williams
    - University of New South Wales, Australia
  - Decoding the Unmapped Sky: An Analysis of a UAV Sensors
    - Jan Droske
    - University of New South Wales, Australia
  - Developing Cooperative Aircraft Systems: A Building Block Approach
    - Mathew Atkinson
    - University of New South Wales, Australia
  - The Effect of Fly Thrust and Inlet Shape on Efficiency
    - Adam Oertel
    - RMIT University, Australia
  - Multi-Objective Design Optimization: An Application of Formulation
    - Matthew Wiltis
    - RMIT University, Australia
  - Modeling of Aircraft Ground Handling: A Distributed Approach
    - Peter Flynn
    - Defence Science & Technology Organisation, Australia

#### Session 2B
- Room: Propulsion
- Chair: Albert Wong
- Presentation:
  - System Design and Development of a MEMS
    - Ji-Hyea Yang
    - KAIST, Korea
  - Flight Testing of an Aircraft with an Innovative Engine
    - Andrew Elliott
    - Defence Science & Technology Organisation, Australia
  - Development of a More Turbulent Engine Nozzle Design
    - Andrew Elliott
    - Defence Science & Technology Organisation, Australia
  - Investigation of Different Aircraft Engine Inlet Designs
    - Brian Fildman
    - University of Sydney, Australia
  - Developments in Structural Health Monitoring: An Application of Innovative Sensors
    - Andrew Elliott
    - Defence Science & Technology Organisation, Australia
  - Formula 1 Aerodynamics: An Insight into High-Speed Flight
    - Paul Harries
    - Edge Hill University, United Kingdom
  - Simulation of Aircraft Ground Handling: A Distributed Approach
    - Peter Flynn
    - Defence Science & Technology Organisation, Australia

#### Session 2C
- Room: Avionics
- Chair: Graham Smith
- Presentation:
  - A New Generation of Aircraft Avionics
    - Ji-Hyea Yang
    - KAIST, Korea
  - Enhancing Propulsion System Condition Monitoring
    - Andrew Elliott
    - Defence Science & Technology Organisation, Australia
  - Monitoring and Damage Detection in Aircraft Structures
    - Andrew Elliott
    - Defence Science & Technology Organisation, Australia
  - Preliminary Aerodynamic Design of a Box-Wing Aircraft
    - Andrew Elliott
    - Defence Science & Technology Organisation, Australia
  - The Effect of Aerodynamic Load on the Performance of a Composite Aerofoil
    - Paul Harries
    - Edge Hill University, United Kingdom
  - Flight Testing of an Integrated Engine and Aircraft System
    - Peter Flynn
    - Defence Science & Technology Organisation, Australia

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<td>Structures</td>
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<td><strong>3rd Australian International Aerospace Congress</strong></td>
<td><strong>Building on History for the Future</strong></td>
<td><strong>Congress Dinner, Plaza Ballroom, Reception Theatre</strong></td>
<td><strong>Congress Dinner, Keynote 2</strong></td>
<td><strong>Matt Hall</strong></td>
<td><strong>Matt Hall</strong></td>
<td><strong>AUSTRALIA</strong></td>
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**14**
| Time  | Session 4A                                      | Session 4B                                      | Session 4C                                      | Session 4D                                      | Session 4E                                      | Session 4F                                      | Session 4G                                      | Session 4H                                      | Session 4I                                      | Session 4J                                      |
|-------|------------------------------------------------|-------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|

**Wednesday 2 March 2013**

0715 - 0915  
Student Breakfast  
Meeting Room 203

0915 - 0945  
**Session 4A**  
**Optimal Trajectory Design for D-SEND Wing**  
Hitoshi Tsuchii  
Japan Aerospace Exploration Agency  
JAPAN

0945 - 1015  
**Session 4B**  
**A Simplified Simulation of Aircraft Engine**  
Hanspyong Chang  
University of New South Wales  
AUSTRALIA

1015 - 1045  
**Session 4C**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

1045 - 1115  
**Session 4D**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

1115 - 1145  
**Session 4E**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

1145 - 1215  
**Session 4F**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

1215 - 1245  
**Session 4G**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

1245 - 1315  
**Session 4H**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

1315 - 1345  
**Session 4I**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

1345 - 1415  
**Session 4J**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

**Keynote Address 7**  
**Meeting Room 109 & 110**  
Gerry Wallis  
Fabrice Rochereau  
EADS Australia Pacific  
AUSTRALIA

**Keynote Address 8**  
**Meeting Room 106**  
Costa Bl  
Yueping Lu  
Air Traffic Management Bureau  
CHINA

**Capitalising on Experience to Build Up a Strong Defence and Aerospace Industry: a European Example**

**Development of Air Traffic Management in China**

**Move between session**  
**Session 4A**  
**Optimal Trajectory Design for D-SEND Wing**  
Hitoshi Tsuchii  
Japan Aerospace Exploration Agency  
JAPAN

**Session 4B**  
**A Simplified Simulation of Aircraft Engine**  
Hanspyong Chang  
University of New South Wales  
AUSTRALIA

**Session 4C**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

**Session 4D**  
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Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

**Session 4E**  
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Defence Science & Technology Organisation  
AUSTRALIA

**Session 4F**  
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**Session 4G**  
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Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

**Session 4H**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

**Session 4I**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

**Session 4J**  
**A Simplified Simulation of Aircraft Engine**  
Robert Slattery  
Defence Science & Technology Organisation  
AUSTRALIA

**Morning Tea**
<table>
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<tr>
<th>Time</th>
<th>Session 5A</th>
<th>Session 5B</th>
<th>Session 5C</th>
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<tr>
<td>1045 - 1115</td>
<td>Simulation</td>
<td>Propulsion</td>
<td>Vertical Flight</td>
<td>CBM other</td>
<td>Techniques 2</td>
<td>Unmanned Aerial Systems</td>
<td>Structures</td>
<td>Materials</td>
<td>Aerosdynamics</td>
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<td></td>
<td>Peter Ryan</td>
<td>Farid Chresta</td>
<td>Jeremy Blackwell</td>
<td>Graham Foray</td>
<td>David Forrester</td>
<td>Anvind Sinha</td>
<td>Steve Gates</td>
<td>Puri Saburamami</td>
<td>Lachlan Thompson</td>
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<td></td>
<td>Apparent Motion of the Runway Sidewalk as a Visual Cue to Plane Towing: An Investigation through Full-Flight Simulator Experiments</td>
<td>Korea Advanced Institute of Science &amp; Technology KOREA</td>
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<td>Flight Envelope of a Tetrahedral Unmanned Aerial Vehicle</td>
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<td>Old Ideas Employed Through Modern Technology</td>
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<td>The Small Scales of Turbulence: A Significant Challenge to Micro Flight Design</td>
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<td>1145 - 1215</td>
<td>Progress in Automatic Grid Generation for Accurate Non-Stationary Simulations</td>
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<tr>
<td>1215 - 1315</td>
<td>Lunch</td>
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### 14th Australian International Aerospace Congress

#### Session 6A

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<thead>
<tr>
<th>Session 6A</th>
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<tr>
<td>Sustainment</td>
<td>Structures</td>
<td>Control Systems</td>
<td>Data Aquisition/SHM</td>
<td>Halo HUMS</td>
<td>Unmanned Aerial Systems</td>
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<td>Kevin Goldsmith</td>
<td>Robert Boykett</td>
<td>Noel Martin</td>
<td>Steve Gates</td>
<td>Andrew Becker</td>
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#### Session 6G

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<td>107</td>
<td>108</td>
<td>109 &amp; 110</td>
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<td>Certification &amp; Safety</td>
<td>Materials</td>
<td>Aerodynamics</td>
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#### Session 6K

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**Chair**

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**Room**

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**Theme**

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**Other Details**

- **Keynote Address 9**
  - Meeting Room: 109 & 110
  - Brian Darcy
  - Ian Race
  - Integrated Vehicle Health Management Centre
  - United Kingdom

- **Keynote Address 10**
  - Meeting Room: 108
  - Cees Bil
  - Jai Moon Kim
  - Korea Aerospace Research Institute
  - KOREA

- **Tribator UAV Development and Ground Test**
  - The Static Flight Performance Analysis of a Korea-Traditional Kite
  - Taekwon Kang
  - Korea Air Force Academy KOREA

- **Application of CT Scanning to Investigate the Failure of Carbon Fiber Composites**
  - Byung-Keun Park
  - Japan Aerospace Exploration Agency JAPAN

- **The Influence of UAVs on In-Flight Performance Using Data-Shaped Ventilation**
  - Yukio Hirai
  - Japan Aerospace Exploration Agency JAPAN

- **Design of a Small-scale Superconducting Magnet with Reduced Field Error**
  - Kazuhito Nishimoto
  - Japan Aerospace Exploration Agency JAPAN

- **The Reliability of Flight Test and Evaluation of the Mechanical and Durability Properties of Aluminum**
  - Byung-Keun Park
  - Japan Aerospace Exploration Agency JAPAN

- **The Certification and Qualification Flight Test Campaign of the Korean K-200 for the BAe Systems**
  - Miguel Morell
  - Aeronautic Centre of Colombia COLOMBIA
<table>
<thead>
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<th>Time</th>
<th>Session TA</th>
<th>Session TB</th>
<th>Session TC</th>
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<td>1600 - 1700</td>
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<td>Lachlan Thompson</td>
<td>Nathan Poyner</td>
<td>Richard Koolen</td>
<td>Albert Wong</td>
<td>Kevon Joyce</td>
<td>Jeremy Buckwell</td>
<td>Lora Motz</td>
<td>Jan Drohik</td>
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<td>1630 - 1700</td>
<td>Special Overview Briefing: Roscosmos and Australia Perspective Cooperation Trends</td>
<td>Raykov, Nikolay Panichkin, Viktor Ivanov</td>
<td>Central Research Institute for Machine Building RUSSIA</td>
<td>A Novel Method for the Prediction of Remaining Useful Life Based on the Linear Approach</td>
<td>Study for Initial Attitude Estimation of Gliding Munitions through Observability Analysis of the ODP/ADO Algorithm</td>
<td>Preliminary Flight Testing of Autonomous Landing with the Kuroi-UAS</td>
<td>Risk Analysis of Safety</td>
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<td>Noel Martin</td>
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Day 3 - Thursday 3 March 2011

Australian International Airshow & HUMS2011 Program

0730 - 0900  Coach Transfer from Melbourne Convention Centre to AVALON 2011

0930 - 1230  HUMS - Technical Briefings at Australian International Airshow AVALON 2011

0930 - 1000  Onboard Helicopter Rotor Condition Monitoring System and Optimising Algorithms
              Peter Marriott, Helocon & Steve Pollard, University of Bristol

1000 - 1030  F414 Engine Condition Monitoring System (ECMS) - Program Demonstration
              Matt Williams, TAFE

1030 - 1100  Next Generation Multi-mission Recorders: A Reliable, Flexible Solution
              Neil Hefferman, Arc Control

1100 - 1130  To be advised

1130 - 1200  To be advised

1500 - 1700  Coach Transfer from AVALON 2011 to Melbourne Convention Centre

KEY

Presentation Titles Marked With An * Indicates the Paper has been Peer Reviewed

AERO Papers
HUMS Papers
APISAT Papers