



The American Institute of Aeronautics and Astronautics (AIAA)

is the world's largest technical society
dedicated to the global aerospace profession

2015 Forum Venues

- AIAA Science and Technology Forum and Exposition
5-9 January 2015
Gaylord Palms and Convention Center
Kissimmee, Florida
- AIAA Aviation and Aeronautics Forum and Exposition
22-26 June 2015
Hilton Anatole
Dallas, Texas
- AIAA Propulsion and Energy Forum and Exposition
27-29 July 2015
Hilton Orlando
Orlando, Florida
- AIAA Space and Astronautics Forum and Exposition
31 August- 2 September 2015
Pasadena Convention Center
Pasadena CA
- AIAA Defense and Security Forum and Exposition is still in development

AIAA Aircraft Design Technical Committee (TC)

- Part of the Aircraft and Atmosphere Systems Group
- Scope: The design and optimization of complete aircraft systems, including analysis of their future potential.
- Chair: Dr. Hernando Jimenez, Georgia Institute of Technology
- Vice Chair: Dr. ir. Willem A.J. Anemaat, DARcorporation
- What Do We Do?

Aircraft Design TC Activities

- Organize Technical Sessions at Conferences (SciTech, Aviation)
- Support University Aircraft Design Competitions
 - Write RFP's
 - Supply Judges
 - Host Winners at Conference
- Workgroup: CADWG21
- Liaison with other TC's
- Publications
 - Aerospace America Year-in-Review Article
 - Newsletter (Dr. Roelof Vos, TUDelft)
- Aircraft Design Award

Aircraft Design Award 2015

- Nominees:
 - Luigi Pascale (Tecnam)
 - Darold Cummings
 - Air Tractor AT-802 (Team nomination)
- Judges: Aircraft Design TC Members
- Award will be presented at Aviation 2015
- Nomination Deadline for 2016: October 1, 2015

Aircraft Design TC Activities (Continued)

- ATIO Best Paper Award
- Aircraft Design Competitions
 - Team Undergraduate
 - Near-Future Turboprop-Powered Passenger Aircraft
 - 1st place: KU Jayhawk Economic Turboprop Transport
 - 2nd place: Cal Poly SLO ERA Aeolus
 - 3rd place: tie between Cal Poly SLO ETA Aviation and KU Dragonfly
 - Team Graduate
 - Supersonic Multi-Utility Technology Test-bed
 - 1st place: TU Delft SMART
 - 2nd place: KU Delta Spike
 - 3rd place: GA Tech Peterodyne MASTER
 - Individual Undergraduate
 - Advanced Pilot Training Aircraft
 - 1st place: TU Delft Adv Transonic Trainer
 - 2nd place: KU Spica Nox Jet Trainer
 - 3rd place: KU Pegasus Jet Trainer

Aircraft Design TC Activities (Continued)

- 2014-2015 RFP
 - VSTOL Air Taxi (Doug Wells and Bill Fredericks, NASA LaRC) – Grad Team
 - Next Generation Military Transport (Hernando Jimenez, GT) – UG Team
 - Uninhabited Long Range Strike Vehicle (Steve Brandt UASAFA) – UG Individual



Cessna Aircraft Company
Raytheon Missile Systems
AIAA Foundation

- Cessna/Raytheon Missile Systems Student **D**esign/**B**uild/**F**ly competition
- Student teams will design, fabricate, and demonstrate the flight capabilities of an unmanned, electric powered, radio controlled aircraft which can best meet the specified mission profile. The goal is a balanced design possessing good demonstrated flight handling qualities and practical and affordable manufacturing requirements while providing a high vehicle performance.
- 19th Annual Event

2014 DBF Winners: UC Irvine



TC Meetings and Conference Calls

- SciTech 2015 Kissimmee, Florida, USA, January 5-9, 2015
- Design, Build, Fly Competition (DBF), Tucson, Arizona, USA, April 10-12, 2015
- Aviation 2015, Dallas, Texas, USA, June 22-26, 2015
- Two Conference Calls



5 – 9 January 2015, Kissimmee, FL

Title	Abbreviat	Date	Start Time	End Time	Location	Chair
Aircraft Design Optimization	ACD-01	Tuesday 1/06/2015	9:30 AM	12:30 PM	Naples 3	Hernando Jimenez
High Speed Aircraft Design	ACD-02	Wednesday 1/07/2015	9:30 AM	12:30 PM	Tallahassee 2	Steve Komadina
Aircraft Design Tools	ACD-03	Wednesday 1/07/2015	9:30 AM	12:30 PM	Naples 3	Andy Hahn
CADWG - Computer Aided Design Working Group	ACD-04	Thursday 1/08/2015	9:30 AM	12:30 PM	Naples 3	Tim Takahashi & Willem Anemaat
Propulsion Integration for Aircraft Design	ACD-05	Thursday 1/08/2015	2:00 PM	5:30 PM	Emerald 8	Ed DiGirolamo
Aircraft Design Methodology	ACD-06	Thursday 1/08/2015	2:00 PM	5:30 PM	Osceola Ballroom 3	Cees Bil
Transport Aircraft Design	ACD-07	Friday 1/09/2015	9:30 AM	1:00 PM	Osceola Ballroom 3	Michael Drake
Aircraft Design Case Studies	ACD-08	Friday 1/09/2015	9:30 AM	1:00 PM	Osceola Ballroom 4	Gil Crouse
Competition Winner Presentations						
Undergrad Team	ACD-07	Friday 1/09/2015	12:30 PM	1:00 PM	Osceola Ballroom 3	Michael Drake
Undergrad Individual	ACD-02	Wednesday 1/07/2015	11:30 AM	12:00 PM	Tallahassee 2	Steve Komadina
Graduate Team	ACD-02	Wednesday 1/07/2015	12:00 PM	12:30 PM	Tallahassee 2	Steve Komadina

SciTech 2014 Aircraft Design TC Meeting

- Tuesday Jan 6, 2PM to 5 PM
- 1st place winners of the aircraft design competitions (undergraduate team, undergraduate individual, graduate team) have been invited by SAC to attend the conference with financial support, and to present an oral presentation in aircraft design technical sessions. They have also been invited by chairman to present their designs at the ADTC meeting and to engage with all attending members

CADWG21 Meeting

- Daytime ACD technical session: ACD-04 Thursday 1/8 9:30AM to 12:30 PM
- Co-Chairs: Dr. Tim Takahashi, Dr.ir. Willem A.J. Anemaat
- Event is structured as an expert panel on conceptual design tools, will follow a typical presentation and discussion format
- Panel:
 - Jason Merret, Gulfstream
 - Colin Johnson, Desktop Aeronautics
 - Jason Welstad, NASA/LaRC
 - Shreekant Agrawal, Northrop-Grumman Corporation
 - Ed Alyanak, United States Air Force AFRL/RVQC
 - Arthur Rizzi, KTH, Sweden
 - Juan Alonso, Stanford University
- Topic: How much physics / computation is needed for conceptual aircraft sizing to explore advanced technologies and / or new concepts? (How much fidelity is enough, and how do you know it is enough?)



Shaping the Future of Aerospace

Application Forms to Join TC:

www.aiaa.org