

MEETING NO. 120
AGENDA Draft OUTLINE
AEROSPACE CONTROL AND GUIDANCE SYSTEMS COMMITTEE

Embassy Suites SEATAC Airport
15920 West Valley Highway
Tukwila, WA 98188
206-219-2144

31 October – 3 November 2017

Tuesday 31-Oct-17 6:00pm	1.0 PLANNING ADVISORY BOARD MEETING Canterbury
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Chairman	Brian Lee
Vice-Chairman	Marge Draper-Donley
Immediate Past Chairman	Phil Hattis
Treasurer	Stan Pszczolkowski
Secretary	Jeb Orr

Board Members

Christine Belcastro Riccardo Bevilacqua Oliver Brieger Jan De Luca Dave Doman Shawn Donley Dale Enns	Sanjay Garg Irene Gregory Steve Jacobson Gavin Jenney Dave Klyde Raman Mehra Naira Hovakimyan	Piero Miotto Dave Mitchell Jeb Orr James Paduano Mark Tischler Kevin Wise
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Wednesday 1-Nov-17 7:00am – 8:30am	2.0 REGISTRATION AND BREAKFAST Longacres
8:30am – 9:00am	3.0 GENERAL BUSINESS MEETING Longacres Brian Lee – Chairman

<p>Wednesday 1-Nov-17 9:00am – 12:00pm</p>	<p>4.0 GENERAL COMMITTEE TECHNICAL SESSION Christine Belcastro and Dale Enns Co-Chairs</p>
<p>10:00am – 10:20am</p>	<p>4.1 Government Agencies Summary Reports 4.1.1 DoD 4.1.1.1 Office of Naval Research (ONR) – Brian Holm-Hansen 4.1.1.2 Army – Mark Tischler 4.1.1.3 Air Force Research Lab (AFRL) – Dave Doman 4.1.2 NASA 4.1.2.1 Ames – Kelley Hashemi 4.1.2.2 Armstrong – Steve Jacobson 4.1.2.2 Langley – Irene Gregory for Jack Ryan</p> <p>BREAK</p> <p>4.2 Research Institutions, Industry, and University Reports 4.2.1 Research Institutions and Companies 4.2.1.1 Barron Associates, Inc. – Neha Gandhi 4.2.1.2 Scientific Systems Company - Raman Mehra 4.2.1.3 D.K. Schmidt & Associates – Dave Schmidt 4.2.1.4 Aurora Flight Sciences – Jim Paduano 4.2.1.5 Optimal Synthesis – P.K. Menon 4.2.2 Technical Committee Liaison 4.2.2.1 SAE S-7 Committee – Brian Lee</p> <p>4.1.3 Universities 4.2.3.1 University of Tennessee Space Institute – Mark Balas</p>
<p>12:00pm – 1:10pm</p>	<p>LUNCHEON – Belmont (Meet in Subcommittees) Subcommittee chairs, members and attendees will meet for lunch and agenda planning for Meeting No. 119.</p>
<p>1:10pm – 1:50 pm</p>	<p>5. SUBCOMMITTEE D – Dynamics, Computations and Analysis David Doman, Chair David Klyde, Vice Chair 5.1 ATARI / LSO UAS Approach, Buddy Denham, NAVAIR</p>
<p>1:50pm – 2:30pm 2:30pm – 3:10pm 3:10pm – 3:20pm 3:20pm – 4:00pm</p>	<p>5.2 “Manned Simulation Fidelity and its Role in Engineering, Jerry Lockenour, Retired 5.3 “Aircraft and Rotorcraft Flight Control Technologies and Challenges”, Mark Tischler US Army AMRDEC</p> <p>BREAK</p> <p>5.4 “HQ Design Criteria for UAS Carrier Approach”, Marge Draper-Donley, NAVAIR</p>
<p>Still Wednesday</p>	<p>6.0 SUBCOMMITTEE E – FLIGHT, PROPULSION, AND AUTONOMOUS VEHICLE CONTROL SYSTEMS</p>

1 November, 2017	Sanjay Garg, Chair Irene Gregory, Lou Knotts, Vice-Chairs
4:00pm – 4:40pm	6.1 “Aircraft Loss of Control: Problem Analysis and Research Toward a Holistic Solution”, Chris Belcastro, NASA Langley
4:40pm – 5:20pm	6.2 “US Army Degraded Visual Environment Mitigation Program – NATO Flight Trials”, Brian Fujizawa, Aviation Development Directorate -- AFDD
5:30pm – 7:00pm	RECEPTION - Belmont
Thursday 2-Nov-17 7:00am – 8:00am	BREAKFAST – ATRIUM / Longacres Room
	6.0 SUBCOMMITTEE E – FLIGHT, PROPULSION, AND AUTONOMOUS VEHICLE CONTROL SYSTEMS (cont) Sanjay Garg, Chair Irene Gregory, Lou Knotts, Vice-Chairs
8:00am – 8:40am	6.3 “Boeing In-Situ program” – Jeff Swain, Boeing
8:40am – 9:20am	6.4 “SAFE Learning – UC Berkley”, Clair Tomlin
	7.0 SUBCOMMITTEE A – Aeronautical and Ground Vehicles Steve Jacobson, Chair Dave Mitchell, Dominik Niedermeier, Vice Chairs
9:20am – 10:00am	7.1 “Online Parameter Identification and Aircraft Icing Modeling on Embraer Aircraft”, Per Ohme, DLR
10:00am – 10:20am	BREAK
10:20am – 11:00am	7.2 “Learn to Fly Flight Test Results” Steven Snyder, NASA Langley Research Center
11:00am – 11:40am	7.3 “Autonomous formation flight test results”, Joe Pahle, NASA Armstrong Flight Research Center
11:40am – 12:20pm	7.4 “KC-46 Boom System Development Program Overview”, Shawn Rexus, USAF AFMC
12:20pm – 2:00pm	LUNCHEON – Belmont PAB will meet for lunch and agenda planning for Meeting No. 120 in Pimlico Other attendees have open seating for lunch in Belmont
2:00pm – 2:50pm	8.0 Ward Award Lecture – “Real-Time Frequency Response Estimation and Applications”, Jared Grauer, NASA Langley Research Center

Thursday 2-Nov-17	9.0 SUBCOMMITTEE B – MISSILES AND SPACE Piero Miotto, Chair Riccardo Bevilacqua, Vice Chair; Kevin Wise, Vice Chair
2:50pm – 3:30pm	9.1 “Cost Effective V&V for Guidance Using Enhanced Ground Testing (EGT)”, Peter Castelli, DRAPER
3:30pm – 3:50pm	BREAK
	SUBCOMMITTEE B – MISSILES AND SPACE (cont) Piero Miotto, Chair Riccardo Bevilacqua, Vice Chair; Kevin Wise, Vice Chair
3:50pm – 4:30pm 4:30pm – 5:10pm	9.2 “Space Launch System Adaptive Augmenting Control”, John Wall, NASA 9.3 “Piloting Spacecraft, Guidance and Control of Human Space Vehicles”, Kevin Duda, DRAPER
5:20pm	BUS LEAVES FOR MUSEUM OF FLIGHT
5:30pm – 9:00pm	Dinner at Museum of Flight
Friday 3-Nov-17 7:00am – 8:00am	BREAKFAST – ATRIUM / Longacres
	SUBCOMMITTEE B – MISSILES AND SPACE (cont) Piero Miotto, Chair Riccardo Bevilacqua, Vice Chair; Kevin Wise, Vice Chair
8:00am – 8:40am	9.4 “Flying Testbed DA 42 “OE-FSD” – Application to AOA Limiting for GA”, Simon Schatz, Technical University, Munich
	10. SUBCOMMITTEE C – Avionics and Systems Integration Raman Mehra, Chair Jan De Luca, Jim Paduano, Vice-Chairs
8:40am – 9:20am 9:20am – 10:00am	10.1 “Some Recent Progress in Dealing with the Dual Curse of High Nonlinearity and Large Uncertainty for Space Situational Awareness,” John Junkins, Texas A&M University 10.2 “Interval Management (IM), a NextGen Air Traffic Management Concept,” Lesley Weitz, MITRE
10:00am – 10:20am	BREAK
10:20am – 11:00AM 11:00AM – 11:40am	10.3 “Robust and Adaptive Output Feedback Control for Non-Minimum Phase Systems with Arbitrary Relative Degree”, Eugene Lavretsky, Boeing 10.4 “Towards an Algorithmic Control Theory,” Mehran Mesbahi, University of Washington
11:40AM	ADJOURN