



Aerospace Control and Guidance Systems Committee Meeting No. 130

Spring 2023

Missoula, MT

DRAFT AGENDA – March 3, 2023

TUESDAY, 21 March 2023

07:00 pm -9:00 pm	PLANNING ADVISORY BOARD MEETING – Russell Boardroom
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Chairman	Jeb Orr
Vice-Chairman	John Valasek
Immediate Past Chairman	Piero Miotto
Treasurer	Stan Pszczolkowski
Secretary	Kevin Duda

Planning Advisory Board Members		
Mike Bolender Dave Doman Marge Draper-Donley Jared Grauer Irene Gregory	Phil Hattis Dave Klyde Brian Lee Raman Mehra Chris Miller	Dave Mitchell Brett Ridgely Kevin Wise Tansel Yucelen

PAB Emeritus				
Shawn Donley	Ron Hess	Lou Knotts	Gavin Jenney	Dave Schmidt

WEDNESDAY, 22 March 2023 – Day 1

7:00 am – 8:30 am	Registration and Breakfast – Bitterroot Room
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8:30 am – 9:00 am	GENERAL BUSINESS MEETING – Bitterroot Room Jeb Orr – Chairman
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9:00 am – 11:00 am	GENERAL COMMITTEE TECHNICAL SESSION – Bitterroot Room <ul style="list-style-type: none"> • Marco Lotterio, Systems Technology, Inc. • Scott Condie, Virgin Galactic • Chris Miller, NASA AFRC • Jeb Orr, Mclaurin Aerospace • Oliver Brieger, Airbus
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11:00 am – 11:20 am	Break
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SUBCOMMITTEE D – DYNAMICS, COMPUTATIONS, AND ANALYSIS

Co-Chairs: Dave Doman, Mike Bolender, and Dave Klyde

Room: Bitterroot

11:20 am – 12:00 pm	D.1 “Increasing the Availability of the Precision Landing Mode on the F/A-18E/F/G,” Jacques (Jack) Romano, Naval Air Warfare Center Aircraft Division
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12:10pm – 1:30 pm	LUNCHEON – (Meet in Subcommittees) – Blackfoot Room
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1:30 pm – 2:10 pm	D.2 “Design and Challenges of the Model Following Algorithm on the X-62 VISTA,” Chris Cotting, USAF Test Pilot School, Edwards AFB and Que Harris, Lockheed Martin ADP
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2:10 pm – 2:50 pm	D.3 “DARTS: A Versatile Dynamics Toolkit for Guidance and Control,” Carl Leake, NASA Jet Propulsion Laboratory
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2:50 pm – 3:10 pm	Break
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3:10 pm – 3:50 pm	D.4 “Decision Making Under Uncertainty with Application to Precision Airdrop and Beyond,” Adam Gerlach, USAF Air Force Research Laboratory, Aerospace Systems Directorate
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SUBCOMMITTEE C – AVIONICS AND SYSTEM INTEGRATION (Session 1 of 2)

Co-Chairs: Raman Mehra and Jared Grauer

Room: Bitterroot

3:50 pm – 4:30 pm	C.1 “Active Flow Control,” Rene Wozidlo, Aurora Flight Sciences
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6:00 pm – 9:00 pm	RECEPTION – Blackfoot Room
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THURSDAY, 23 March 2023 – Day 2

07:00 am-8:30 am	Breakfast – Bitterroot Room
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SUBCOMMITTEE C – AVIONICS AND SYSTEM INTEGRATION (Session 2 of 2)
Co-Chairs: Raman Mehra and Jared Grauer
Room: Bitterroot

8:30 am – 9:10 am	C.2 “Aerospace Fault Detection and Fault Tolerance Industrial Benchmark,” Phillipe Goupil, Airbus
9:10 am – 9:50 am	C.3 “Sustainability and Future Mobility,” Kevin Wise, Boeing
9:50 am – 10:30 am	C.4 “On The Emergence of AI Language Models as a Design Tool,” Jeb Orr, Mclaurin Aerospace

10:30 am – 10:40 am	Break
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SUBCOMMITTEE B – MISSILES AND SPACE
Co-Chairs: Phil Hattis, Brett Ridgely, and Kevin Wise
Room: Bitterroot

10:40 am – 11:20 pm	B.1 “Flight Experience with Space Launch System Core Stage TVC,” John Wall, NASA MSFC (Mclaurin Aerospace/ESSCA)
11:20 am – 12:00 pm	B.2 “Survival Design and Strategies for Aborted Crewed Missions for Mars Exploration,” Phil Hattis, Draper

12:10 pm – 1:30 pm	LUNCHEON – Blackfoot Room PAB LUNCHEON – Russell Room
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1:30 pm – 2:10 pm	B.3 “Current JPL Guidance and Control Section Activities,” John Liu, NASA Jet Propulsion Laboratory
2:10 pm – 2:50 pm	B.4 “Dual Quaternion Guidance for the SPLICE Program,” Behçet Açikmeşe, University of Washington

2:50 pm – 3:00 pm	Break
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SUBCOMMITTEE E – FLIGHT, PROPULSION, AND AUTONOMOUS VEHICLE CONTROL SYSTEMS
Co-Chairs: John Valasek, Irene Gregory
Room: Bitterroot

3:00 pm – 3:40 pm	E.1 “Primary Flight Control at DLR-SR – Recent Flight Test Experiences & Projects,” Christian Weiser, DLR
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FRIDAY, 24 March 2023 – Day 3

07:00 am – 8:00 am	Breakfast – Bitterroot Room
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SUBCOMMITTEE A – AERONAUTIC AND SURFACE VEHICLES
Co-Chairs: Dave Mitchell and Chris Miller
Room: Bitterroot

8:00 am – 8:40 am	A.1 “Analytic INS Error Calculation using Nonlinear Contraction Theory,” Winfried Lohmiller, Airbus
8:40 am – 9:20 am	A.2 “A Proposed Method of Compliance to Support Certification of Advanced Flight Controls in General Aviation and Hybrid Vehicles,” Marco Lotterio, Systems Technology, Inc.

9:20 am – 9:40 am	Break
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9:40 am – 10:20 am	A.3 “Investigating Effects of Instantaneous Center of Rotation Location on Handling Qualities for Up-and-Away Tasks,” Joey Duncan and Capt. Luke Babich, 773 TS/ENFA, US Air Force, Edwards AFB, CA.
10:20 am – 11:00 am	A.4 “Vertical Motion Simulation of the Lift + Cruise Vehicle with Real-Time Complex Powertrain Models,” Peter Suh, NASA AFRC

11:00 am – 11:30 am	Adjourn
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