



Aerospace Control and Guidance Systems Committee Meeting No. 134

Spring 2025

Houston, Texas

TUESDAY, 11 March 2025

06:00 pm -8:00 pm	PLANNING ADVISORY BOARD MEETING - PDR or "Private Dining Room" at the LUNA Restaurant and Bar at the hotel
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Chairman	John Valasek
Vice-Chairman	Haithem Taha (Online)
Immediate Past Chairman	Jeb Orr
Treasurer	Stan Pszczolkowski
Secretary	Kevin Duda

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

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

WEDNESDAY, 12 March 2025 – Day 1

7:00 am – 8:00 am	REGISTRATION & BREAKFAST - Atlantis 1 & 2
8:00 am – 8:30 am	GENERAL BUSINESS MEETING – Atlantis 1 & 2 John Valasek – ACGSC Chair
8:30 am – 10:00 am	GENERAL COMMITTEE TECHNICAL SESSION – Atlantis 1 & 2 <ul style="list-style-type: none">- Philippe Goupil, Airbus- Jared A Grauer, NASA Langley- Umberto Saetti, University of Maryland- John Valasek, Texas A&M University
10:00 am – 10:20 am	Break - Atlantis 1 & 2
Subcommittee E – FLIGHT, PROPULSION, AND AUTONOMOUS VEHICLE CONTROL SYSTEMS	
10:20 am – 11:00 am	E.1 History Talk: “Origins and history of the technology implemented in the F-35 Flight Control System,” Dave Bodden, LMAS retired
11:00 am – 11:40 am	E.2 “Comparison of Methods to Verify Probabilistic Requirements,” Sankalp Bhan, Amazon/WashU
12:00 pm – 1:30 pm	LUNCHEON – Atlantis 1 & 2
1:50 pm – 2:30 pm	E.3 “Hierarchical Learned Auctions for Communication-Sparse Satellite Environments,” Hannah Lehman, TAMU
Subcommittee D - DYNAMICS, COMPUTATIONS, AND ANALYSIS	
2:30 pm - 3:10 pm	D.1 “Safety Under Uncertainty for Aerospace Systems Via an Error-Based Safety Buffer,” Peter Fisher, MIT
3:10 pm – 3:30 pm	Break - Atlantis 1 & 2
3:30 pm – 4:10 pm	D.2 “Weapon Engagement Zones: From First Principles to Applications,” Alexander Von Moll, AFRL
4:10 pm – 4:50 pm	Ward Award Lecture: “Extended Reality Simulation and Control of Rotorcraft,” Umberto Saetti, University of Maryland
6:00 pm – 8:00 pm	RECEPTION – Atlantis 1 & 2

THURSDAY, 13 March 2025 – Day 2	
07:00 am – 8:00 am	BREAKFAST - Atlantis 1 & 2
7:50 am – 8:00 am	Day 2 Introduction John Valasek – ACGSC Chair
Subcommittee C - AVIONICS AND SYSTEM INTEGRATION	
8:00 am – 8:40 am	D.3 “Transforming 2D Path Planning and Pursuit-Evasion to Spherical Surface,” Satyanarayana Manyam, DCS Corporation
8:40 am – 9:20 am	C.1 “Model Based Controls in a software-centric future,” Chris Sullivan, Pictorus titled
9:20 am – 9:40 am	Break - Atlantis 1 & 2
9:40 am – 10:20 am	C.2 “Strategies for application of AI to Avionic Systems,” Phillipe Goupil, Airbus
10:20 am – 11:00 am	C.3 “Convex-Optimization-Based Methods for Sensor Pointing Guidance with Aerospace Applications,” Samuel Buckner, NASA JSC
11:00 am - 11:40 am	E.4 “Assurance Challenges in Developing AI/ML Components for Civil Aviation,” Natasha Neogi, NASA LARC
12:00 pm – 1:30 pm	LUNCHEON – Atlantis 1 & 2 PAB LUNCHEON – Atlantis 1 & 2
1:50 pm – 2:30 pm	A.2 “Space Robotics and the TAMU Space Institute,” Robert Ambrose, TAMU
3:00 pm - 5:00 pm	NASA JSC Tour!

FRIDAY, 14 March 2025 – Day 3

07:00 am – 8:00 am	BREAKFAST - Atlantis 1 & 2
7:50 am – 8:00 am	Day 3 Introduction John Valasek – ACGSC Chair
Subcommittee B - MISSILES AND SPACE Subcommittee A - AERONAUTIC AND SURFACE VEHICLES	
8:00 am – 8:40 am	B.2 “Real Time Spacecraft Stability Margin Estimation Using Telemetry from Planned On-Orbit Operations,” Jimmy Jang, Draper
8:40 am - 9:20 am	A.1 “From Delta-Wing Aircraft to Deployable Spacecraft: Novel Control Effectors for Moment Trimming and Position Tracking,” Wendy Okolo, NASA ARC
9:20 am - 9:40 am	Break - Atlantis 1 & 2
9:40 am - 10:20 am	B.1 “Autonomous Navigation in Cislunar Space,” Chris D’Souza, NASA/NESC
10:20 am - 11:00 am	A.3 “Tight Constraint Prediction with Transformer-based Powered Descent Guidance (T-PDG),” Julia Briden, NASA JSC
11:00 am – 11:40 am	S.1 “FAA Special Topic and ACGSC History,” Stan P., FAA retired
11:40 pm	Concluding Remarks - Adjourn