

# Aerospace Control and Guidance Systems Committee Meeting No. 132 Spring 2024 Salt Lake City, UT

DRAFT AGENDA (3/6/24)

## TUESDAY, 16 April 2024

07:00 pm -9:00 pm

PLANNING ADVISORY BOARD MEETING - Dining Room

| Chairman                | Jeb Orr            |
|-------------------------|--------------------|
| Vice-Chairman           | John Valasek       |
| Immediate Past Chairman | Piero Miotto       |
| Treasurer               | Stan Pszczolkowski |
| Secretary               | Kevin Duda         |

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

|              |          | PAB Emeritu | IS           |              |
|--------------|----------|-------------|--------------|--------------|
| Shawn Donley | Ron Hess | Lou Knotts  | Gavin Jenney | Dave Schmidt |

| I                 | WEDNESDAY, 17 April 2024 – Day 1  |
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| 7:00 am – 8:00 am | REGISTRATION & BREAKFAST - Blue Spruce  |
|                   |   |
| 8:00 am – 8:30 am | GENERAL BUSINESS MEETING – Blue Spruce  |
|                   | Jeb Orr – ACGSC Chair   |
| 8:30 am -10:00 am | GENERAL COMMITTEE TECHNICAL SESSION – Blue Spruce   |
|                   | <ul> <li>Dave Schmidt, <i>PAB Emeritus</i>, DK Schmidt &amp; Associates, LLC</li> <li>Dave Mitchell, Mitchell Aerospace Research</li> </ul> |
|                   | Marge Draper-Donley, NAVAIR   |
|                   |   |
|                   | Philip Goupil, Airbus   |
|                   | Brian Lee, Boeing   |
|                   | <ul> <li>John Valasek, Texas A&amp;M University</li> </ul>  |
|                   | Raman Mehra, Scientific Systems Company, Inc.   |

10:00 am – 10:20 am Break

| SUBCOMMITTEE A – AERONAUTIC AND SURFACE VEHICLES (Session 1 of 2) - Blue Spruce |  |
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| Co-Chairs: Dave Mitchell, Oliver Brieger, and Chris Miller                      |  |

| 10:20 am – 11:00 am | A.1 "Method for Predicting Multi-Axis Task Performance and Handling<br>Qualities Rating for a Coaxial-Compound and Tiltrotor Rotorcraft with<br>Validating Data," Ed Bachelder, San Jose State University |
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| 11:00 am – 11:40 am | A.2 "EU Project SENS4ICE Hybrid Ice Detection Architectures Demonstration Results," Carsten Schwarz, DLR  |

| 11:50 am – 1:20 pm 🛛 L | LUNCHEON – (Meet in Subcommittees) – Aspen |
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| 2023 Dave Ward Memoria | I Lecture                   |
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| 1:30 pm – 2:30 pm      | Dr. Heather Hussain, Boeing |
|                        |                             |
| 2:30 pm – 2:50 pm      | Break                       |

| SUBC | OMMITTEE A – AER | ONAUTIC AND SURFACE VEHICLES (Session 2 of 2) - Blue Spruce   |
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| 2:5  | 50 pm – 3:30 pm  | A.4 "X-57 Maxwell Lessons Learned," James Reynolds, NASA AFRC |

| SUBCOMMITTEE B – MISS<br>Co-Chairs: Phil Hattis and K | SILES AND SPACE (Session 1 of 2) - Blue Spruce<br>Kevin Wise                         |
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| 3:30 pm – 4:10 pm                                     | B.1 "Orion's Powered Flight Guidance Performance During Artemis I," Tom Fill, Draper |
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| 6:00 pm – 9:00 pm                                     | RECEPTION – Cottonwood   |

| THURSDAY, | 18 April 2024 – Day | 2 |
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| 07:00 am – 8:00 am                              | BREAKFAST - Blue Spruce  |
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| 7:50 am – 8:00 am                               | Day 2 Introduction<br>Jeb Orr – ACGSC Chair  |
|   | RONAUTIC AND SURFACE VEHICLES (Session 2 of 2) - Blue Spruce   |
| Co-Chairs: Phil Hattis and                      | Kevin Wise   |
| Co-Chairs: Phil Hattis and<br>8:00 am – 8:40 am | Kevin Wise<br>B.2 "Closed-Loop Flight Testing on Astrobotic Reusable Rocket Testbeds,"<br>Sean Bedford, Astrobotic |

| 9:20 am – 9:30 am | Break |
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| SUBCOMMITTEE C – AVIONICS AND SYSTEMS INTEGRATION - Blue Spruce<br>Co-Chairs: Raman Mehra and Jared Grauer |  |
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| 9:30 am – 10:10 am   | C.1 "12 Years of Experience at EASA," Cédrik Harang, Airbus  |
| 10:10 am – 10:50 am  | C.2 "Sustainability and Future Mobility," Kevin Wise, Boeing |
| 10:50 am - 11:30 am  | C.3 "Certification Strategies for Autonomy," Wirk Aerospace  |

| 11:40 am – 1:00 pm | LUNCHEON – Aspen           |
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|                    | PAB LUNCHEON – Dining Room |

| 1:15 pm – 5:00 pm | Hill Air Museum Tour - Meet in Lobby at 1:15 PM |
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### FRIDAY, 19 April 2024 – Day 3

| 07:00 am – 8:00 am | BREAKFAST - Blue Spruce                     |
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| 7:50 am – 8:00 am  | Day 3 Introduction<br>Jeb Orr – ACGSC Chair |

#### **SUBCOMMITTEE D – DYNAMICS, COMPUTATIONS, AND ANALYSIS** - Blue Spruce Co-Chairs: Dave Doman, Mike Bolender, Dave Klyde, and Brian Lee

| 8:00 am – 8:40 am  | D.1 "Alternative Swarm Architectures: Insect Navigation and Control in Group Flight," Imraan Faruque, Oklahoma State University |
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| 8:40 am – 9:20 am  | D.2 "Machine Learning for Air Data Systems," Zach Meves, Boeing   |
| 9:20 am – 10:00 am | D.3 " "Cognitively Enhanced Complex Event Processing," Dakota Evans and Scott Douglas, AFRL                                     |

10:00 am – 10:20 am Break

#### **SUBCOMMITTEE E – FLIGHT, PROPULSION, AND AUTONOMOUS VEHICLE CONTROL SYSTEMS** Co-Chairs: John Valasek and Irene Gregory

| 10:20 am – 11:00 am | E.1 "Development of a Computer Vision Database for Urban Air Mobility"<br>Nelson Brown, NASA AFRC |
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| 11:00 am – 11:40 am | E.2 "Airbus A330 SMART MRTT Automatic Air-to-Air Refueling (A3R)," Oliver Brieger, Airbus         |

| 11:40 am – 12:00 pm | Concluding Remarks    |
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|                     | Jeb Orr – ACGSC Chair |

| 12:00 pm | Adjourn |
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