

## Agenda



### Modern Operations with Future Integrated Vehicle Management Systems VIRTUAL Technical Meeting



Thursday Aug. 19 – Friday Aug. 20, 2021

**Thursday August 19, 2021**

**Virtual Presentations will take place in US Eastern Daylight Time – [Time & Date](#)**

10:00 – 10:15 AM	<b>Welcome/Introductions</b>	
10:15 – 10:45 AM	<b>Technical Paper Presentation</b> <i>Piloted Evaluation of Adaptive Flight Controls Designed to Improve Performance, Safety, and Survivability for Advanced VTOL</i>	<b>Derek Bridges</b> , Piasecki Aircraft Corp.
10:45 – 11:15 AM	<b>Technical Paper Presentation</b> <i>Machine-learning Framework for Online Probabilistic Rotor Fault Detection, Identification and Quantification on a Multicopter using Boom Strain Signals</i>	<b>Airin Dutta</b> , RPI – Center for Mobility with Vertical Lift (MOVE)
11:15 – 11:45 AM	<b>Invited Presentation</b> <i>Vision of an ATM System for Future AAM</i>	<b>Nick Lappos</b> , Sr. Fellow, Sikorsky, LMCO & Chair, Nat'l. Academy of Eng., Aero. & Space Eng. Board
11:45 AM–12:15 PM	<b>Keynote Presentation</b> <i>Advanced VMS – A Perspective</i>	<b>Russell Enns and Fernando Dones</b> , Boeing Vertical Lift
12:15 – 12:20 PM	<b>Sponsor Presentation</b> <i>Accelerating Avionics Design &amp; Deployment Real-Time Innovations (RTI)</i>	<b>Ross Gilson</b> , Senior Field Applications Engineer, RTI
12:20 – 12:45 PM	<b>Break</b>	
12:45 – 1:15 PM	<b>Technical Paper Presentation</b> <i>Candidate VMS Architecture Approaches to Support Future AH-64 Apache Attack Helicopter Requirements</i>	<b>Gary Klein</b> , Boeing Vertical Lift
1:15 – 1:45 PM	<b>Technical Presentation</b> <i>Domain-Specific Language Configuration for COTS Flight-Control Software Building Blocks</i>	<b>Ivan Makarov</b> , Catalyst Aerospace Technologies
1:45 – 2:15 PM	<b>Technical Paper Presentation</b> <i>Evolving System Integration Labs in the Age of Digital Transformation</i>	<b>Bill Eccles</b> , Bloomy Controls
2:15 – 2:30 PM	<b>Break</b>	
2:30 – 3:00 PM	<b>Invited Presentation AIAA</b> <i>Case Studies in Adaptive Flight Control</i>	<b>Dr. Anthony J. Calise</b> , Georgia Institute of Tech. (Ret.)
3:00 – 3:30 PM	<b>Invited Presentation Near Earth Autonomy</b> <i>Assured Autonomy: Why? What? How?</i>	<b>Sanjiv Singh</b> , Near Earth Autonomy
3:30 – 4:00 PM	<b>Invited Presentation: Vertical Flight Society (VFS)</b> <i>The Future of Vertical Flight</i>	<b>Mike Hirschberg</b> , Executive Director, VFS
4:00 – 4:15+ PM	<b>Day 1 Wrap-up</b>	



Vertical Flight Society  
Philadelphia Chapter

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Vehicle Management Systems  
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Vertical Flight Society  
Aberdeen Chapter

**Friday August 20, 2021**

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10:00 – 10:15 AM	<b>Welcome/Introductions</b>	
10:15 AM – 12:00 PM	<p><i>Panel Discussion: Reimagining Vehicle Management Systems for UAS</i></p> <p><b>Matt Rhinehart, Flight Dynamics Branch Head, Naval Warfare Center Aircraft Division</b> <b>Ted Maciuoba, Deputy Director, Robotics Requirements Army Futures Command</b> <b>Dr. Bill Evans, Human Agent Teaming Essential Research Program DEVCOM-Army Research Lab</b> <b>Dr. Tom Berger, Flight Controls Lead, DEVCOM AvMC</b> <b>Mark Butkiewicz, V.P., SURVICE Engineering Co.</b></p>	<b>Moderated by Dr. Jean-Paul Reddinger, DEVCOM Army Research Lab</b>
12:00 PM – 12:15 PM	<b>Break</b>	
12:15 – 12:45 PM	<p><b>Technical Presentation</b> <i>Role of Physics-Based Models in Simulation for VMS</i></p>	<b>Michael Avera, DEVCOM Army Research Lab</b>
12:45 – 1:15 PM	<p><b>Invited Technical Presentation</b> <i>A GNC Architecture for Autonomous Transitioning Aerial Vehicles</i></p>	<b>Kristoff McIntosh and Prof. Sandipan Mishra RPI – Center for Mobility with Vertical Lift (MOVE)</b>
1:15 – 1:45 PM	<p><b>Invited Technical Presentation</b> <i>Deterministic Reconfiguration of Flight Control Systems for Multirotor UAV Package Delivery</i></p>	<b>Anthony Gong, DEVCOM AvMC</b>
1:30 – 1:55 PM	<p><b>Invited Technical Presentation</b> <i>Coordinated Planning with Aerial and Ground Vehicles for Long-Term Autonomy</i></p>	<b>Prof. Pratap Tokekar, University of Maryland</b>
1:45 – 2:00 PM	<b>Meeting Wrap-up</b>	

**General Chair: Mr. Dan Wells, Leonardo**

**Technical Co-Chairs:**

**Mr. Kevin W. Wise, Boeing Vertical Lift**

**Dr. Rajneesh Singh, DEVCOM Army Research Lab**

**Thanks to our sponsor [Real-Time Innovations \(RTI\)](#)**

