

2013 AHS Specialists' Meeting on Unmanned Rotorcraft and Network-Centric Operations - Preliminary Program			
Tuesday , January 22, AM - Invited Speakers's Session 1- Session Chair - Ram JanakiRam -Boeing			
No.	Title	Authors	Affiliation
	Opening Remarks	Ram JanakiRam	The Boeing Company
1	Future Manned and Unmanned Rotorcraft in the Current Defense Environment	Mike Hirschberg	AHS International
2	Autonomy – Reshaping the Vertical Lift Market	M. Francis	UTRC
3	TBD	TBD	TBD
Session 2 UAV Control and Autonomy I Tuesday, January 22, PM			
1	Maneuverability Comparison of Flybar and Flybarless Micro-Helicopters	Renee Gardner, Sean Humbert and Inderjit Chopra	University of Maryland
2	Predictive Control for Aggressive Slung Load Maneuvers	Gerardo De La Torre, Eric Johnson and Tansel Yucelen	Georgia Institute of Technology
3	H6-U (Unmanned Little Bird) Deck Interface (Piloted and Autonomous Operations) Test results	Dr Bernard Ferrier, Mark Hardesty, Roger J. Hehr and Dino A. Cerchi	Boeing Company and Hoffman Engineering Corp
4	Launch and Recovery Shipboard Innovation for FireScout	Dr. Bernard Ferrier, Dr Robert Ernst and David Eccles	Hoffman Engineering Corp, Naval Air Warfare Center, NAVAIR PMA 266
5	Terrain Height Evidence Sharing for Collaborative Autonomous Rotorcraft Operation	Eric N. Johnson, John G. Mooney, Matthew White, Jonathan Hartman, Vineet Sahasrabudhe	Georgia Institute of Technology, Sikorsky Aircraft Corporation
6	Autonomous Technologies for Unmanned Aircraft Systems on the K-MAX UAS Testbed	Schlosser	Lockheed
7	Controllability and Disturbance Gramian Analysis of a Shrouded Rotor MAV in Hover	Vikram Hrishikeshavan, Sean Humbert and Inderjit Chopra	University of Maryland
8	Development of Transition Control Methodology for a Quad Rotor-Biplane Micro Air Vehicle From Hover to Forward Flight	Vikram Hrishikeshavan, Dean Bawek, Omri Rand and Inderjit Chopra	University of Maryland
9	Development and Testing of an Autonomous Autorotation System	Thanan Yomchinda, Nick Grande, Joseph F. Horn and Jack W. Langelaaan	Pennsylvania State University
Session 3 Navigation, Wednesday, January 23, AM			
1	Vision-Based Navigation and Exploration Strategies for Unmanned Helicopters in Disaster Scenarios	Franz Andert, Florian B�athge, Steffen Frehse, and J�org Dittrich	German Aerospace Center (DLR)
2	ULB Guidance, Navigation, and Control Laws and Evaluation of Their Performance During Shipboard Operations	Bryan Chu, Don Caldwell and Dino Cerchie	The Boeing Company
3	Sampling-Based Road Map Planning in a Probabilistic Environment	Thomas A. Frewen, Suresh Kannan, Harshad Sane	Sikorsky Aircraft Corporation
4	Development of Navigation and Automated Flight Control System Solutions for Maritime VTOL UAS Operations	Mark Hardesty, Sandy Kennedy, Sheena Dixon, Travis Berka, Jason Graham, Don Caldwell	The Boeing Company
5	Trajectory Optimization for Fuel Cell Powered Tilt Quad-Rotor UAV in Forward Flight	Min Zhou, J.V.R. Prasad	Georgia Institute of Technology

Session 4 Network Centric Operations, Wednesday, January 23, PM			
1	An Overview and Summary of AH-64D Apache Helicopter Networking Experimentation Enabled by the Manned/Unmanned Common Architecture Program (MCAP) Embedded Architecture	Dale L. Johnson	Aviation and Missile Research, Development, and Engineering Center Ft. Eustis, VA
2	Development and Evaluation of the Apache Block III Link 16 in Network Centric Operations	Christa C. Luna, Scott R. Swinsick	Boeing Company
3	Manned Unmanned Operations (MUMO) Capability Development Laboratory (CDL)	Charles Shepard , Terry Gibson, David Samples, Brent McCall, Jeff Erwin, Chuy Menchaca	Bell Helicopter and AAI
4	Enabling Situational Awareness and Network Centric Operations for Systems utilizing FACETM Open Systems Architectures	Dr. Ram D. JanakiRam, Stephen M. Simi	Boeing Company, Tucson Embedded Systems
Session 5 Design Operations and Testing Wednesday, January 23, PM			
1	Automated, Integrated Health Monitoring of the A160 Hummingbird: Flight Test Case Study	Timothy E. Lee, Mary Jayne Cribbs, John C. Krainski	Boeing Company
2	ROTORwing – A New Concept for a Long Endurance VTOL	Mark A. Page	DZYNE Technologies
3	A Comparative Study of Drooped Leading Edge Airfoil Dynamic Stall Behavior in the Low and High Reynolds Number Regimes	Lakshmi N Sankar, Eliya Wing and Ritu Marpu	Georgia Institute of Technology
4	Understanding and Suppressing Low Frequency In-Plane Harmonic Noise of Rotary-Wing Unmanned Air Vehicles	D. Caleb Sargent, Fredric H. Schmitz	University of Maryland
5	Firescout MQ-8C Growth Capabilities for Warfighter Flexibility	Terry Parisher, Charles Shepard	Northrop Grumman, Bell Helicopter
Session 6 Micro AirVehicles, Thursday, January 24, AM			
1	Development of a Hover-Capable 500 gram Cyclogyro Utilizing a Novel Cam-Based Passive Blade Pitching Mechanism	Zachary H. Adams, Moble Benedict, Vikram Hrishikeshavan , Inderjit Chopra	United States Air Force Academy, University of Maryland
2	Development of an 800 gram Quad-Cyclocopter Capable of Autonomous Hover	Moble Benedict, Joseph Mullins, Vikram Hrishikeshavan, Inderjit Chopra	University of Maryland
3	Force and Power Predictions for a Flapping MAV Wing in Hover	Brandon L. Bush and James D. Baeder	University of Maryland
4	Forward flight dynamics of an insect-inspired flapping wing vehicle	Kenneth MacFarlane , Nicholas Kostreskiy, and J. Sean Humbertz	University of Maryland
5	Investigation of Aerodynamics of Flexible Flapping Wings for MAV Applications	Ria Malhan, Vinod K. Lakshminarayan, Pierangelo Masarati, James Baeder, Inderjit Chopra	University of Maryland
6	Experimental Investigation of High Speed Flight Capability of the Revolutionary Cycloidal-Rotor Concept	Tejaswi Jarugumilli, Moble Benedict, Inderjit Chopra	University of Maryland