

MEETING NO. 118

AGENDA OUTLINE

AEROSPACE CONTROL AND GUIDANCE SYSTEMS COMMITTEE

The Commons Hotel
615 Washington Avenue, SE
Minneapolis, MN 55414
612-379-8888

19-21 October 2016

Tuesday

18-Oct-16

6:00pm

1.0 PLANNING ADVISORY BOARD MEETING

Inventor 3 Room

Chairman

Phil Hattis

Vice-Chairman

Brian Lee

Immediate Past Chairman

Lou Knotts

Treasurer

Stan Pszczolkowski

Secretary

Marge Draper-Donley

Board Members

Christine Belcastro
Riccardo Bevilacqua
Oliver Brieger
Jan De Luca
Dave Doman
Shawn Donley
Dale Enns

Sanjay Garg
Irene Gregory
Klaus-Uwe Hahn
Ron Hess
Steve Jacobson
Gavin Jenney
Dave Klyde
Raman Mehra

Piero Miotto
Dave Mitchell
Jeb Orr
James Paduano
Dave Schmidt
Mark Tischler
Kevin Wise

Wednesday

19-Oct-16

7:00am – 8:30am

2.0 REGISTRATION AND BREAKFAST

Pinnacle Ballroom

8:30am – 9:00am

3.0 GENERAL BUSINESS MEETING

Pinnacle Ballroom

Phil Hattis – Chairman

Wednesday

19-Oct-16

9:00am – 12:00pm

4.0 GENERAL COMMITTEE TECHNICAL SESSION

Christine Belcastro and Dale Enns Co-Chairs

*NOTE: LISTED GENERAL SESSION BRIEFINGS ARE STILL PLACE HOLDERS
BASED ON ACTUAL PRESENTERS AT MEETING 117*

4.1 Government Agencies Summary Reports

4.1.1 DLR - Klaus-Uwe Hahn

4.1.2 NASA

4.1.2.1 Langley - Carey Buttrill

4.1.2.2 Marshall – John Wall

4.2 Research Institutions, Industry, and University Reports

4.2.1 Research Institutions and Companies

4.2.1.1 Systems Technology, Inc. - Dave Klyde

4.2.1.2 Calspan Flight Research Group - Lou Knotts

4.2.1.3 Scientific Systems Company - Raman Mehra

4.2.1.4 Barron & Associates - Alec Bateman

4.2.1.5 Mitchell Aerospace Research - Dave Mitchell

4.2.1.6 Sikorsky Aircraft - Vineet Sahasrabudhe

4.2.1.7 Crew Systems – Dick Newman

4.2.2 Technical Committee Liaison

4.2.2.1 SAE S-7 Committee – Brian Lee

4.2.3 Universities

4.2.3.1 University of Minnesota – Pete Seiler

4.2.3.2 Technical University Munich - Florian Holzapfel

4.2.3.3 Hamburg University of Technology - Frank Thielecke

4.2.3.4 Moscow Aviation Institute – Alexander Efremov

12:00pm – 1:30pm

LUNCHEON – Pathways Room (Meet in Subcommittees)

Subcommittee chairs, members and attendees will meet for lunch and agenda planning for Meeting No. 119.

1:30pm – 2:10 pm

5.0 6th Annual Dave Ward Memorial Lecture – Pinnacle Ballroom

Winner to be Announced

2:10pm – 2:50pm

6.0 SUBCOMMITTEE A – AERONAUTIC AND SURFACE VEHICLES

Steve Jacobson, Chair

Klaus-Uwe Hahn, Dave Mitchell, Vice Chairs

6.1 “Solar Impulse Flight Results” by Ralph Paul, Solar Impulse

Wednesday

19-Oct-16

2:50pm – 3:10pm

BREAK

3:10pm – 4:30pm

6.0 SUBCOMMITTEE A – AERONAUTIC AND SURFACE VEHICLES (cont)

Steve Jacobson, Chair

Klaus-Uwe Hahn, Dave Mitchell, Vice Chairs

6.2 “B-47 Fly-By-Wire Development Program 1966-1969,” by Gavin Jenney

6.3 TBD

4:30pm – 5:10pm

7.0 SUBCOMMITTEE B – MISSILES AND SPACE

Piero Miotto, Chair

Riccardo Bevilacqua, Vice Chair; Kevin Wise, Vice Chair

7.1 “Satellite Formation-Flying for Future Space Science and Exploration,” Simone D’Amico, Stanford University

Thursday

20-Oct-16

7:00am – 8:00am

BREAKFAST – Eastover Room

8:00am – 9:20am

7.0 SUBCOMMITTEE B – MISSILES AND SPACE (cont)

Piero Miotto, Chair

Riccardo Bevilacqua, Vice Chair; Kevin Wise, Vice Chair

7.2 “Spacecraft Re-Entry Impact Point Targeting Using Aerodynamic Drag,” by Sanny Omar, University of Florida

7.3 TBD

9:20am – 10:00am

8.0 SUBCOMMITTEE C – AVIONICS AND SYSTEM INTEGRATION

Raman Mehra, Chairs

Jan DeLuca, Vice Chair; James Paduano, Vice Chair

8.1 “Micro Autonomous Systems for the Dismounted Soldier,” by Brett Piekarski, Army Research Laboratory

10:00am – 10:20am

BREAK

10:20am – 11:40am

8.0 SUBCOMMITTEE C – AVIONICS AND SYSTEM INTEGRATION (cont)

Raman Mehra, Chairs

Jan DeLuca, Vice Chair; James Paduano, Vice Chair

8.2 “Aurora Flight Science’s Advanced VTOL Autonomy Programs,” by Graham Drozeski, Aurora Flight Sciences

8.3 “Flight in Complex Environments Without GPS: Fast, Cheap and Very Much in Control” by Sanjiv Singh, Near Earth Autonomy

11:40am – 12:20am

9.0 SUBCOMMITTEE D – DYNAMICS, COMPUTATIONS, AND ANALYSIS

Ron Hess and Dave Doman, Co-Chairs

Dave Schmidt, Vice Chair

9.1 “Control of Flexible Aircraft,” by Peter Seiler, University of Minnesota

Thursday

20-Oct-16

12:20pm – 2:00pm

LUNCHEON

PAB will meet for lunch and agenda planning for Meeting No. 119 in Inventor 1 Room

Other attendees have open seating for lunch in the Pathways Room

2:30pm – 5:30pm

UNIVERSITY OF MINNESOTA AEROSPACE ENGINEERING AND MECHANICS DEPARTMENT TOUR

5:30pm – 7:00pm

RECEPTION IN THE BALAS ATRIUM, UNIVERSITY OF MINNESOTA

Friday

21-Oct-16

7:00am – 8:00am

BREAKFAST – Pinnacle Ballroom

8:00am – 9:20am

9.0 SUBCOMMITTEE D – DYNAMICS, COMPUTATIONS, AND ANALYSIS (cont)

Ron Hess and Dave Doman, Co-Chairs

Dave Schmidt, Vice Chair

9.2 “X-51 Flight Control,” by Mark Nugent, Boeing

9.3 “Development and Pilot-In-The-Loop Evaluation of Robust Upset Recovery Guidance” by Nate Richards, Barron Associates, Inc.

9:20am – 10:00am

10.0 SUBCOMMITTEE E – FLIGHT, PROPULSION, AND AUTONOMOUS VEHICLE CONTROL SYSTEMS

Sanjay Garg and Irene Gregory, Co-Chairs

10.1 “Sikorsky Rotorcraft Autonomy Research Program,” by Igor Cherepinsky, Sikorsky

10:00am – 10:20am

BREAK

10:20am – 11:40am

10.0 SUBCOMMITTEE E – FLIGHT, PROPULSION, AND AUTONOMOUS VEHICLE CONTROL SYSTEMS (cont)

Sanjay Garg and Irene Gregory, Co-Chairs

10.2 “TRAVELER – Trustworthy Autonomy Architecture,” by Mark Skoog, NASA/Armstrong

10.3 “GE CLEEN Research in Propulsion Control to Improve Fuel Burn,” by Mark Darnell, GE Aviation