

MEETING NO. 117
PRELIMINARY AGENDA
AEROSPACE CONTROL AND GUIDANCE SYSTEMS COMMITTEE

Embassy Suites Napa Valley
1075 California Blvd
Napa, CA 94559
707-253-9540

15-18 March 2016

Tuesday

15-Mar-16

6:00pm

1.0 PLANNING ADVISORY BOARD MEETING

Pinot Noir B

Chairman	Phil Hattis
Vice-Chairman	Brian Lee
Immediate Past Chairman	Lou Knotts
Treasurer	Stan Pszczolkowski
Secretary	Marge Draper-Donley

Board Members

Christine Belcastro
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
Dave Schmidt
Mark Tischler
Kevin Wise

Wednesday

16-Mar-16

7:30am – 8:30am

2.0 REGISTRATION

Pinot Noir BC

8:30am – 9:00am

3.0 GENERAL BUSINESS MEETING

Pinot Noir BC

Phil Hattis – Chairman

Wednesday

16-Mar-16

9:00am – 12:00pm

4.0 GENERAL COMMITTEE TECHNICAL SESSION

Christine Belcastro and Dale Enns Co-Chairs

The following General Committee Technical Session agenda is only representative, based on the prior meeting's actual agenda – this list of presenters will be finalized during the month before meeting 117

4.1 Government Agencies Summary Reports

4.1.1 DLR - Klaus-Uwe Hahn

4.1.2 DoD

4.1.2.1 AFRL – Dave Doman

4.1.3 NASA

4.1.3.1 Langley - Carey Buttrill

4.1.3.2 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

4.2.2 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 – The Terrace I (Meet in Subcommittees)

Subcommittee chairs, members and attendees will meet for lunch and agenda planning for Meeting No. 118.

1:30pm – 2:50pm

5.0 SUBCOMMITTEE B – MISSILES AND SPACE

Piero Miotto, Chair

Kevin Wise, Vice Chair

5.1 “Green Run Frequency Response Testing of Space Launch System Thrust Vector Control,” Jeb Orr, Draper

5.2 “Passively Safe Satellite Cluster Design,” Michael Messina, Northrop Grumman

Wednesday

16-Mar-16

2:50pm – 3:10pm

BREAK

3:10pm – 4:30pm

5.0 SUBCOMMITTEE B – MISSILES AND SPACE (cont.)

Piero Miotto, Chair

Kevin Wise, Vice Chair

5.3 “Dual Exploration Architectures for Breaking the Decades-Long Cycles of Planetary Science,” Brett Streetman, Draper

5.4 “Solar Radiation Pressure Applications on Geostationary Satellites,” Ricardo Bevilacqua, University of Florida

4:30pm – 5:10pm

6.0 SUBCOMMITTEE C – AVIONICS AND SYSTEM INTEGRATION

Raman Mehra, Chair

Jan DeLuca, Vice Chair

6.1 “Towards Automated Validation and Verification of Guidance and Control Systems,” Misty Davies, NASA Ames

6:00pm – 7:00pm

Catered Reception– The Terrace I

Thursday

17-Mar-16

7:30am – 8:00am

Registration – Pinot Noir BC

8:00am – 10:00am

6.0 SUBCOMMITTEE C – AVIONICS AND SYSTEM INTEGRATION (cont.)

Raman Mehra, Chair

Jan DeLuca, Vice Chair

6.2 “Robotic Landing Gear of Helicopter,” Mark Costelo, Georgia Tech

6.3 “Multicore in Flight Critical Avionics – Current Practices, Trends and Outlook for Certification,” Larry Kinnan, WindRiver

6.4 “Mars Helicopter,” Bob Balaram, JPL

10:00am – 10:20am

BREAK

10:20am – 12:20pm

7.0 SUBCOMMITTEE D – DYNAMICS, COMPUTATIONS, AND ANALYSIS

Ron Hess and Dave Doman, Co-Chairs

Dave Schmidt, Vice Chair

7.1 “Controller State and Reference Governor for Enforcing State and Control Constraints in Aerospace Applications” Ilya Kolmanovsky, University of Michigan

7.2 “Control Law Design of the Bell 525 Fly by Wire helicopter,” POC Bob Fortenbaugh

7.3 “UAS Traffic Management Research and Development,” by Parimal Kopardekar, NASA Ames

Thursday

17-Mar-16

12:30pm – 2:00pm

LUNCHEON – The Terrace I

PAB will meet for lunch and agenda planning for Meeting No. 118
Meeting attendees have open seating for lunch.

2:00pm – 2:40pm

7.0 SUBCOMMITTEE D – DYNAMICS, COMPUTATIONS, AND ANALYSIS (cont.)

Ron Hess and Dave Doman, Co-Chairs
Dave Schmidt, Vice Chair

7.4 “DARPA ALIAS (Aircrew Labor In-Cockpit Automation System) Program,”
speaker pending

2:40 pm–3:20 pm

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

Sanjay Garg and Irene Gregory, Co-Chairs

8.1 “NASA Aeronautics Autonomy Roadmap and Current Activities,” Mark Ballin,
NASA/LaRC

3:20 pm – 3:40 pm

BREAK

3:40 pm–5:00 pm

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

Sanjay Garg and Irene Gregory, Co-Chairs

8.2 “Sikorsky Rotorcraft Autonomy Research Program,” Igor Cherepinsky, Sikorsky

8.3 “Flight and Propulsion Control Technical Challenges for NASA Aeronautics
Strategic Research Thrusts,” Carey Buttrill (NASA LaRC)

Friday

18-Mar-16

7:00 am – 8:00 am

Registration – Pinot Noir BC

8:00 am – 8:40 am

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

Sanjay Garg and Irene Gregory, Co-Chairs

8.4 “Aero-Propulsion Controls and Diagnostic Research under NASA Aeronautics
Programs – An Overview,” Sanjay Garg, NASA/GRC

8:40 am – 9:20 am

9.0 SUBCOMMITTEE A – AERONAUTIC AND SURFACE VEHICLES

Steve Jacobson, Chair
Klaus-Uwe Hahn, Dave Mitchell, Vice Chairs

9.1 “The Man4Gen Project – Managing the Unexpected,” Jan-Philipp Buch, DLR

Friday

18-Mar-16

9:20 am – 9:40 am

BREAK

9:40 am – 11:20 am

9.0 SUBCOMMITTEE A – AERONAUTIC AND SURFACE VEHICLES (cont.)

Steve Jacobson, Chair

Klaus-Uwe Hahn, Dave Mitchell, Vice Chairs

9.2 “Safe and Mission Efficient Cooperation of Autonomous and Heterogeneous Vehicles,” Bruno Lamiscarre, ONERA

9.3 “X-56 Control and Dynamics Challenges and Lessons Learned from Flight,” by Jacob Schaefer, NASA/Armstrong

9.4 TBD