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DIVISION ON ENGINEERING AND PHYSICAL SCIENCES
AERONAUTICS AND SPACE ENGINEERING BOARD

**Aeronautics Research and Technology Roundtable**
**NASA Autonomy Research**
**August 2, 2016**
**NAS Keck Building Room 100**
**500 Fifth Street, NW, Washington, DC 20001**

# PRELIMINARY AGENDA

## Tuesday, August 2, 2016

### OPEN SESSION

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| 8:00 am | *Room opens (breakfast available in the room)* | |
| 9:00 am | Meeting convenes; Welcome and introductions | Dwayne Day<br>Roundtable members |
| 9:15 am | Opening remarks<br>- Key drivers for autonomy research<br>- Meeting purpose<br>- Motivate topics for discussion | Jaiwon Shin<br>John Tracy, Chair<br>John-Paul Clarke |
| 9:45 am | NRC and NASA roadmap perspectives:<br>- NRC Autonomy Study barriers<br>- NASA Roadmap Introduction<br>  - Vision for the future of civil aviation<br>  - Autonomy research challenges | <br>John-Paul Clarke<br>Mark Ballin |
| 10:30 am | Discussion (facilitated by John Tracy and J-P Clarke)<br>- What are the most compelling reasons for NASA ARMD to invest in autonomy research?<br>- How well did NASA address NRC barriers?<br>- Are there other important areas that should be included? | Roundtable members |
| 11:15 am | *Break (15 minutes)* | |
| 11:30 am | Selected ongoing ARMD autonomy research activities | Parimal Kopardekar |
| 12:00 pm | *Working lunch; discussion continues* | |
| 12:30 pm | Discussion (facilitated by John Tracy and J-P Clarke) | Roundtable members |

- How well do these activities address NRC autonomy barriers?
- Recommendations for new activities that address other needed autonomy research areas

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| 1:00 pm | NASA roadmap advancement strategies | Mark Ballin |
| 1:15 pm | Discussion (facilitated by John Tracy and J-P Clarke)<br>- How will these strategies support NASA autonomy objectives | Roundtable members |
| 1:45 pm | NASA roadmap candidate mission products, community feedback process, and feedback to date | Mark Ballin |
| 2:30 pm | Discussion (facilitated by John Tracy and J-P Clarke)<br>- Which mission products do members consider to best address NRC autonomy study barriers?<br>- What are the suggested priorities? | Roundtable members |
| 3:15 pm | *Break (15 minutes)* | |
| 3:30 pm | Current NASA activities in autonomy;<br>programmatic approach and status | Doug Rohn<br>Richard Barhydt |
| 3:45 pm | Discussion (facilitated by John Tracy and J-P Clarke)<br>- Q&A and recommendations | Roundtable members |
| 4:15 pm | Roundtable Member Comments - Closing remarks | John Tracy<br>John-Paul Clarke<br>Roundtable Members |
| 5:00 pm | *Meeting adjourns for the day* | |

Last updated: July 28, 5:45 PM

Aeronautics Research and Technology Roundtable Statement of Task

The Aeronautics Research and Technology Roundtable (ARTR) convenes senior-most representatives from industry, universities and NASA to define and explore critical issues related to NASA's aeronautics research agenda that are of shared interest; to frame systems-level research issues; and to explore options for public-private partnerships that could support rapid, high-confidence knowledge transfer. This forum will be designed to facilitate candid dialogue among participants, to foster greater partnership among the NASA-related aeronautics community, and, where appropriate, carry awareness of consequences to the wider public.

**The following information is provided for any members of the general public who may be in attendance:**

This meeting is being held to facilitate dialogue among the participants. This roundtable will examine the information and material obtained during this, and other meetings, in an effort to

inform its work. Although opinions may be stated and lively discussion may ensue, no conclusions are being drawn at this time and no recommendations will be made by the roundtable. Therefore, observers should draw conclusions about the roundtable's work based on today's discussions.

Furthermore, individual roundtable members often engage in discussion and questioning for the specific purpose of probing an issue and sharpening an argument. The comments of any given member may not necessarily reflect the position he or she may actually hold on the subject under discussion.