Subject: ODM and Emerging Tech Joint NASA-FAA Workshop; Save the date and Working Group Startup ODM and Emerging Aviation Technologies Roadmapping Participants—

Thank you again for your participation at the October workshop. The enthusiasm, commitment, and breadth of participation in Kansas City (KC) truly impressed our senior leaders and there is a growing understanding of the potential of ODM, both as a transformational capability and as an incubator for rapid aeronautics technology infusion. This email lays out the next actions as we build on the progress at KC. Briefly summarized, these actions are

- 1) Hold March 8th and 9th as the dates for the follow-on workshop in Arlington, VA.
- 2) Initiate technology working group membership and participation.
- 3) Review the initial Goal/Objective decomposition and Technology Data Sheet attachments that will be used to guide the working group products for the next workshop.
- 1) In order to maximize the opportunity for NASA and FAA decision makers to participate, the next workshop will be held just outside Washington DC. We're finalizing arrangements to host the meeting at the Lockheed Martin Washington Operations Global Vision Center in Arlington, VA, March 8th and 9th; the venue is a short walk from the Crystal City Metro station. A preliminary agenda outline for the March workshop is included at the end of this email. Please let us know if you have any suggestions or would like to request a slot during one of the industry/govt. presentation slots. Similar to the Kansas City meeting, we anticipate having at \$25/day catering option to facilitate working lunches. Please hold these dates and expect to receive guidance on hotels and registration in January.
- 2) Working groups will continue developing the preliminary road map started in Kansas City with focused remote participation in early January. Based on the breakouts and discussion at KC, we're chartering the following four workgroups (initial point of contact indicated in parenthesis):
 - Electric Propulsion and Configuration Integration (Mark Moore, mark.d.moore@nasa.gov)
 - Simplified Vehicle Operations (Ken Goodrich, k.goodrich@nasa.gov)
 - Manufacturing, Integrated Structures, and Community Impact (Michael Patterson, michael.d.patterson@nasa.gov)
 - ODM Airspace Integration (Ken Goodrich, k.goodrich@nasa.gov)

Nearly all the technologies suggested at the meeting fit within these groups (see the breakout session summaries at www.nianet.org/ODM/roadmap.htm if you haven't already done so). Given the importance and unique challenges of developing certification methods for advanced technologies, processes, and operations, consideration was given to forming a standalone certification group. Ultimately, since the primary focus of the roadmap is technologies, it seemed more appropriate to keep certification considerations tied directly to the technology groups, at least initially. Also we don't want to compete with current FAA-ASTM working groups, but instead find ways to encourage greater participation and leverage those efforts.

Please contact the POCs for the group(s) in which you'd like to participate at your earliest convenience so we can start organizing distribution lists and arrange for the initial WebEx meeting in January.

3) As guides for the working groups and to standardize results, there are two documents at the NIA website (www.nianet.org/ODM/roadmap.htm) you should review. The first document, the ODM Technology Data Sheet (TDS), is an Excel spreadsheet configured to record the impact and development

opportunities of proposed technology investments. The TDS will help document the details of proposed technologies and support the build-up of the overall roadmap. Please take a look at the spreadsheet and provide any formatting suggestions back to us. Also of course, begin thinking about what technologies you'd like the working groups to include.

The second document, ODM Goals Objectives, and Example Technologies, is a PowerPoint presentation overviewing the top-level goals as prioritized in KC. It also provides initial thoughts on decomposing the goals into sub-goals when appropriate and proposes metrics for communicating and measuring progress. Example technologies are included to indicate potential approaches to meeting the goals. Again, please provide your feedback on this presentation and thoughts on furtherer defining the metrics to set and communicate the thresholds to enable ODM, as well as measure progress towards meeting them.

As a final action, please share this invitation with other interested industry members and researchers you think would be interested in contributing to the roadmap. Shortly we'll follow-up with a website to register for the next workshop with additional details.

Best regards and Happy Holidays,

Mark Moore,

Ken Goodrich

2nd On-Demand Mobility and Emerging Aviation Technology Roadmapping Workshop March 8th and 9th, Lockheed Martin Global Vision Center, 2121Crystal Drive, Arlington, VA 22202

March 8th

- Kansas City workshop summary
- Overview, technology reference and scale up/down missions
- Working group reports
- Keynote lunch
- International regulatory & research organizations perspectives
- Industry presentations, focusing on technology perspectives and opportunities

March 9th

- Operator perspectives
- Strategic vision formulation, Bruce Holmes
- Priority of technology goals & metrics
- Inter working group breakouts
- Formulation of technology development strategy (e.g. government-led, industry-led, public-private partnership, leverage)