Research, Engineering Development Advisory Committee Subcommittee on Aircraft Safety (SAS)

2017 Spring Meeting Findings and Recommendations

Meeting Summary:

The Subcommittee on Aircraft Safety (SAS) met on March 8 and 9, 2017 in Oklahoma City, OK, at the FAA Civil Aerospace Medical Institute for its routine spring meeting. This meeting had three specific objectives on its agenda:

- 1. Review and provide comment on the FAA's FY 2019 safety research plan
- Continue to explore previously identified emerging issues and trends from an industry perspective that may be helpful for the FAA gaining a deeper understanding of required research
- 3. Consider what input, if any, should be included in the Agency's internal strategic guidance document for developing the FY 2020 aviation safety research plan

To assess the FY 2019 research plan, a new approach was developed which greatly assisted our efforts. Rather than the traditional quad charts we have historically reviewed, the FAA staff prepared a Research Program Area Review. This review bundled current and proposed research into 15 major program areas. We then had an opportunity to gain a higher-level insight into the research outcomes, tasks, and anticipated 2019 deliverables. Additionally, we were provided visibility to more comprehensive funding information which enabled a broader picture of the research efforts. All SAS members agreed that this method of review was far superior to prior efforts and that the Subcommittee dialogue was greatly enhanced. SAS continued its practice of engaging both Subcommittee members and agency expertise to inform our discussions. Findings and Recommendations related to advanced propulsion materials, fatigue, and UAS are attached to this report.

The Subcommittee was pleased to note progress on several of our prior recommendations. Specifically, we were provided an update on the agencies efforts to refresh the National Aviation Research Plan (NARP) and enhance its connection to the specific safety research of the agency. As a Subcommittee, we were provided an opportunity to discuss the specific goals and objectives being considered in future versions of the NARP. We were also quite pleased to see significant progress on the development of comprehensive research related to Additive Manufacturing. This has been a topic for which the SAS has issued four previous findings and recommendations. We have closed our prior Findings and Recommendations in this area. Subcommittee members were encouraged to individually provide specific feedback on the NARP goals and objectives direct to the FAA. The Subcommittee members provided this feedback prior to the close of the meeting.

SAS believes that there is value in considering the existing and planned research against a set of emerging and future issues, which may have an impact on aviation safety. We continue to keep these previously developed issues in mind in our reviews and in fact, they drive the formulation of our meeting agendas with deep dive presentations. Of note at this meeting, was a briefing on General Aviation safety and the impact of the convergence of distributed electric propulsion and autonomy. This is an area that we will continue to watch closely. With these future issues

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in mind, the SAS has made a general recommendation that, once again, our emerging issues get a broader audience within the AVS community by including them in the FY 2020 strategic guidance document.

The SAS will meet next on September 6 and 7, 2017 in Atlantic City, NJ for our fall 2017 meeting.

Respectfully Submitted,

Ken Hylander Chair, REDAC Subcommittee on Aviation Safety