Subcommittee on Airports' Report to the FAA Research, Engineering, & Development Advisory Committee

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ACI-NA
April 17, 2024

Airports Subcommittee Meeting

- Met February 27-28, 2024 at the FAA Technical Center in Atlantic City
- Reviewed the current Airport Technology Research & Development portfolio and research progress
- Briefed by the Airport Cooperative Research Program, Airport Asphalt Pavement Technology Program, and Airport Concrete Pavement Technology Program on complementary research areas
- Had research briefings on a wide range of FAA projects
  - Fluorine free foam (F3)
  - Autonomous ground vehicle use in the airport environment
  - Vertiport design standards
  - Integration of new entrants and uncrewed aircraft system (UAS) detection and mitigation systems
  - Runway incursion mitigation (RIM) program
  - Pavement testing facility sustainment
  - Sustainable pavement research
  - Pavement materials testing
  - Field instrumentation and testing efforts

Observations

1. The Program's Strategic Outlook for Aviation Research (SOAR) chart and supporting explanatory text have been helpful in informing decision makers—including the Subcommittee—about both high priority and emerging research areas.
2. Additional subject matter expertise is needed on the Subcommittee to address unrepresented stakeholders and provide subject matter expertise regarding key emerging technologies. Action to supplement membership planned after REDAC Committee membership is finalized.
3. The Subcommittee appreciates the dedicated efforts of Program staff to meet very demanding deadlines associated with UAS detection and mitigation research, which have already been used to inform the findings and recommendations of the FAA's UAS Detection and Mitigation Systems Aviation Rulemaking Committee and provide a foundation for future UAS detection system standards.
4. We also appreciate the productivity and collaborative engagement of researchers working under the Airport Asphalt Pavement Technology Program (AAPTP) and Airport Concrete Pavement Technology Program (ACPTP) which have supplemented the Program's other pavement research efforts.

Observations (cont'd)

5. The Subcommittee continues to support new pavement materials testing facilities, especially to enable asphalt binder testing. The Subcommittee agreed that the new facilities will provide faster and higher-quality in-house testing than is currently available, facilitating planned pavement research.
6. Improved coordination and communication between Program researchers, industry associations represented on the Subcommittee, and those associations' members could help expand Program research that relies on field instrumentation. Direct outreach to airports regarding field instrumentation opportunities—possibly through a virtual meeting(s)—would be useful.

Subcommittee Finding/Recommendation

Finding

As the first EMAS systems installed in the United States approach (or exceed) the end of their design lives, airport operators would like to understand if there are additional alternatives that could be used in their place. Program staff suggested that they could issue a broad industry announcement (BAA) requesting information about potential alternatives to the two EMAS systems that are currently approved for use by FAA.

Recommendation

The Subcommittee recommends that Program staff investigate whether there are new EMAS technologies worthy of consideration by the FAA, with the goal of expanding the range of available EMAS solutions that are approved by the FAA for use at US certificated airports via a BAA or comparable means.

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