



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

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ACI-NA
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Airports Subcommittee Meeting

- Met July 30-31, 2024 at the FAA Technical Center in Atlantic City
- Had opportunity to review progress of FAA's Airport Technologies Research and Development Program
 - Provided comments regarding program's priorities and research project progress
- Within Safety and Planning portfolio, ARPTS subcommittee was briefed on
 - Runway incursion mitigation
 - Vertiport design standards
 - Fluorine free foam (F3) transition,
 - Solar-powered lighting
- Within Pavement portfolio, ARPTS subcommittee was briefed on
 - Sustainable pavement research
 - Field instrumentation and testing efforts
 - Current pavement test cycles at the at the NAPTF
- Briefings were also received on complementary airport research programs
 - Airport Cooperative Research Program (ACRP)
 - Airport Asphalt Pavement Technology Program (AAPTP)
 - Airport Concrete Pavement Technology Program (ACPTP)

Observations

1. We continue to recognize that additional subject matter expertise is needed on the Subcommittee to address unrepresented stakeholders and provide subject matter expertise regarding key emerging technologies. Subcommittee members concurred that representation from emerging entrants—AAM, UAS, and possibly commercial space—would be helpful. In addition, representation from airlines, general aviation, and construction stakeholders would help to round out Subcommittee expertise. The Subcommittee awaits guidance from the FAA regarding when we will be able to seek additional representatives.
2. Related to Observation 1, we appreciate the increased emphasis the Program is placing on new entrant research activities and support the ongoing development of a new entrants section within the Program's organizational structure.
3. We 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.
4. The Subcommittee wants to the need for continuing sustainment of aging pavement testing facilities and equipment associated with the National Airport Pavement Testing Facility and appreciates Program staff's attention to these needs in both budgeting and resource allocation.

Observations (cont'd)

5. Subcommittee representatives were impressed and intrigued by interim findings emerging from recently completed pavement testing. These findings provide insight into factors that affect pavement performance and useful life. We encourage to Program staff to continue its focus on factors that impact long-term pavement performance.
6. Subcommittee members would like to receive a briefing at our March 2025 meeting regarding airport and aircraft emissions research, with a particular emphasis on ongoing research into alternatively fueled aircraft—including sustainable aviation, electric, and hydrogen-powered aircraft.

Subcommittee Finding/Recommendation

Finding

The Subcommittee appreciated briefings from Program staff regarding autonomous and automated ground vehicle research and encouraged the FAA to continue focusing on this research. However, Subcommittee members also noted that a number of airports have expressed interest in testing various types of automated, remotely operated, or autonomous ground vehicles at their facilities. Remotely operated vehicles for airport perimeter surveillance, autonomous mowing equipment, and remotely operated/autonomous ground service vehicles were examples cited in this discussion. Subcommittee members would like to see “laboratory” research into safe operation of these vehicles coupled with field testing at willing airports.

Recommendation

We recommend that program staff evaluate how a field-testing program for automated/autonomous ground vehicles could be integrated into the Program’s ongoing automated ground vehicle research projects.

**We note that all the Subcommittee’s prior findings and recommendations have been addressed satisfactorily by Program staff.*



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