AIRPORTS SUBCOMMITTEE REPORT

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ACI-NA
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AIRPORTS SUBCOMMITTEE MEETING

- Subcommittee met July 30-31, 2019 at the FAA's William J. Hughes Technical Center
- Agenda included review of the current Airport Technology Research & Development portfolio
- Specific briefings on:
  - "Research Landscape for the National Airspace System: 2020-2030"
  - Aircraft braking friction research
  - Aircraft fire fighting agent testing program
- Tour of fire safety building currently under construction

AIRPORT TECHNOLOGY RESEARCH & DEVELOPMENT PROGRAM OVERVIEW

Safety & Planning RPAs		Pavement RPAs	
S1	Airport Planning & Design	P1	National Airport Pavement Testing Facility
S2	Airport Safety Data Mining	P2	National Airport Pavement Materials Research Center
S3	Aircraft Rescue & Firefighting	P3	Field Instrumentation & Testing
S4	Wildlife Hazard Mitigation	P4	Advanced Materials
S5	Visual Guidance	P5	Pavement Design & Evaluation
S6	Runway Surface Safety Technology	P6	Non-destructive Testing Technologies
S7	Airport Safety & Surveillance Sensors	P7	Software Program Development and Support
S9	Airport Research Taxiway	P8	Extended Pavement Life
S10	UAS Integration at Airports		
Airport Noise & Environmental RPAs*		**New/Enhanced Facilities**	
N1	National Noise Survey	Fire Safety Building	
N2	DNL & Metrics Evaluation	Pavement Lab Extension	
N3	Sleep Disturbance	Photo Laboratory	
N4	Noise Mitigation		
N5	Operations		
E1	Environmental Tools and Guidance		

* Airport noise and environmental RPAs are being co-managed by the FAA Offices of Airports and Energy & Environment.

RPA: Research Project Area

FALL 2019 FINDINGS & RECOMMENDATIONS

FINDING 1: The Subcommittee reviewed the FAA Research Landscape and is supportive of this strategic approach to prioritizing FAA research and development activities. Subcommittee members view the Research Landscape as a key mechanism for identifying and motivating crosscutting research activities. The Subcommittee also believes that it should continue to be involved with development of the Research Landscape and assisting with translating the research needs articulated within it into meaningful research projects.

FALL 2019 FINDINGS & RECOMMENDATIONS (CONT'D)

RECOMMENDATION 1: The Subcommittee recommends allocating time during each of its semi-annual meetings for discussion of the Research Landscape, with an eye towards providing recommendations and guidance regarding how the Airport Technology Research & Development Branch can move airport safety, planning, design, and engineering research priorities forward.

FALL 2019 FINDINGS & RECOMMENDATIONS (CONT'D)

FINDING 2: The Subcommittee appreciates the work that the Airport Technology Research & Development Branch is doing regarding unmanned aircraft systems (UAS). We are particularly interested in research into (1) facilitating authorized UAS operations on and near airports for the benefit of airports and their users and (2) means, methods, and technologies to detect and mitigate threats posed by unauthorized UAS operations on or near airports.

FALL 2019 FINDINGS & RECOMMENDATIONS (CONT'D)

RECOMMENDATION 2: Although UAS issues—especially those associated with unauthorized UAS activity on or near airports—cut across multiple FAA research programs as well as those of other federal agencies, the Subcommittee recognizes that the Airport Technology Research & Development Branch has a leading role in developing performance standards and use guidance for airport-deployable UAS detection systems if these systems will be eligible for FAA grant funding. We strongly recommend that the FAA expedite this UAS detection system research.

The Subcommittee also strongly supports ongoing research into airport UAS use cases and research & development activities by other FAA lines of business regarding UAS detection, tracking, interdiction, and traffic management.

FALL 2019 FINDINGS & RECOMMENDATIONS (CONT'D)

FINDING 3: The Subcommittee—and the broader community of airport operators—continues to be extremely concerned about a broad range of issues associated with the use of per- and polyfluoroalkyl substances (PFAS) in aircraft fire fighting agents. PFAS are a class of fluorinated hydrocarbon molecules that have been linked to adverse health outcomes in humans.

The Airport Technologies Research Program does have a research program currently underway to evaluate the performance of fluorine-free fire-fighting agents and Subcommittee members were provided with the opportunity to tour the new fire testing facility under construction at the FAA Technical Center during our Summer 2019 meeting.

FALL 2019 FINDINGS & RECOMMENDATIONS (CONT'D)

RECOMMENDATION 3: The FAA should proceed with all due speed with evaluation of the performance of alternatives to PFAS-based fire fighting agents in the civil aviation sector including completing and commissioning its new fire safety test building at the Technical Center. We request that the FAA provide updates prior to Subcommittee meetings if unexpected events or circumstances delay this research.

We also recommend that the FAA coordinate this research with subject-matter experts in industry. We suggest that the FAA consider establishing an expert advisory panel similar to expert panels that have been established in other research areas.

NEW FIRE SAFETY TEST BUILDING

QUESTIONS?