AIRPORTS SUBCOMMITTEE REPORT

Presented by:
Chris Oswald
ACI-NA
October 7, 2020

AIRPORTS SUBCOMMITTEE MEETING

- Subcommittee met virtually on August 26, 2020
- Agenda included review of the current Airport Technology Research & Development portfolio and complementary Airport Cooperative Research Program (ACRP) research
- Also discussed impacts of COVID-19 on research program schedules
- Specific briefings on:
  - Unmanned aircraft system (UAS) research
  - Aircraft braking friction research
  - Aircraft fire fighting agent testing program

AIRPORT TECHNOLOGY RESEARCH & DEVELOPMENT PROGRAM OVERVIEW

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

* The FAA Office of Airports and FAA Office of Energy & Environment co-manage the Airport Noise & Environmental RPAs.

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.

OBSERVATIONS & COMMENDATIONS

- COVID-19 and associated facility closures have had consequential impacts on several key research projects
- We commend FAA's efforts to adapt to the new circumstances and continue research activities that could continue without access to labs and facilities at the Tech Center, including issuance of FAARFIELD 2.0, the latest version of the FAA's airfield pavement design software
- We also recognize the FAA's efforts to meet 2018 Congressional mandates
  - State highway standards for airfield pavements
  - Retroreflective beads for airfield markings
  - Geotextiles for airfield pavements

FALL 2020 FINDINGS & RECOMMENDATIONS

FINDING 1: The Subcommittee recognizes that disruptions caused by the COVID-19 pandemic have delayed time-critical research activities, including those associated with provisions in the FAA Reauthorization Act of 2018, with particular concern regarding the effect these disruptions have had on alternative firefighting agent research.

FALL 2020 FINDINGS & RECOMMENDATIONS (CONT'D)

RECOMMENDATION 1: The Subcommittee recommends that the FAA reassess research timelines in light of COVID-19 delays and prioritize those activities associated with Congressional deadlines.

The Subcommittee also recommends that the FAA provide early indications of research activities that may not be completed in time to inform FAA actions regarding Congressional mandates. These evaluations should take into consideration time necessary for cross-agency collaboration and coordination.

FALL 2020 FINDINGS & RECOMMENDATIONS (CONT'D)

FINDING 2: The Subcommittee generally supports the research into emerging pavement additives. While the Subcommittee realizes the useful potential of these additives, we note that consideration needs to be given to how additives may affect full-scale pavement construction.

FALL 2020 FINDINGS & RECOMMENDATIONS (CONT'D)

RECOMMENDATION 2: The Subcommittee recommends the FAA consider evaluating emerging pavement additives in the National Airport Pavement Testing Facility test facility during future construction cycles. Additionally, the Subcommittee recommends that the construction of these test sections be monitored to determine any impact on the full-scale production of concrete placing, consolidating, and finishing using standard construction practices.

FALL 2020 FINDINGS & RECOMMENDATIONS (CONT'D)

FINDING 3: The Subcommittee remains very interested in the Airport Technology Research Program's involvement in unmanned aircraft system (UAS) and urban/advanced air mobility (AAM/UAM) system research—both from the perspective of their beneficial use at and near Airports and from the perspective of managing the safety and security risks associated with unauthorized use of these and near airports.

FALL 2020 FINDINGS & RECOMMENDATIONS (CONT'D)

RECOMMENDATION 3: We continue to recommend that the Airport Technologies Research Program utilize the Subcommittee to provide airport stakeholder input and insight into its UAS and AAM research activities, as well as in crosscutting research undertaken elsewhere within FAA.

QUESTIONS?