

Outcomes and What's Coming from the

AAPTTP



Airport Asphalt Pavement
Technology Program

Objectives

1. To re-establish the Airport Asphalt Pavement Technology Program (AAPTP)
2. To identify airport pavement issues and problems that could be eligible for funding
3. To coordinate FAA and industry efforts to implement technologies and to solve problems identified through the program as important to FAA and industry
4. To pursue the technology transfer of new solutions, practices, and recommendations as needed



Management

1. Program Coordination Group (Identifies Projects to Complete)
 - Airport Consultants Council
 - NAPA Producer Member
 - Aircraft Manufacturer
 - Federal Aviation Administration
 - Department of Defense
 - State Asphalt Pavement Association Representative
 - Aggregate Industry Representative
 - Openings (ASCE APC Member, Airport Council International, American Association of Airport Executives)



Management

1. Project Technical Panel (Anyone can serve)
 - Develop request for proposals/qualifications for projects
 - Select project team
 - Monitor project progress



Asphalt Mixture Paving Handbook - Revision

- Objective:
 - Update 2000 Transportation Research Board Publication
 - Will also include building an interactive website for field access
- Principal Investigator: Mark Buncher (Asphalt Institute)
- Project Completion: In layout
- Funding: \$200,000 + \$100,000 for website/app
 - RFP for website development in process



Guidance on Selection of Asphalt Binder Grade

- Objective:
 - Aid engineers on selecting and specifying proper asphalt binder grade for airfields
 - Develop a tool to aid in proper binder grade selection
- Principal Investigator: Raquel Moraes (Auburn University)
- Project Completion: Final
- Funding: \$200,000





Guidance for Selection of Proper Asphalt Binder Grade

Final Report

July 1, 2024

Report No. AIR-002



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Airfield Asphalt Binder Selection Tool



Project Details

Project Name

Organization Name

IATA

ICAO

Description

State or Province

County



Balanced Mix Design: Rutting Tests

- Objective:
 - Harmonize rutting requirements in the current FAA specifications
- Principal Investigator: Elie Hajj (University of Nevada at Reno)
- Project Completion: Final Report in Review
- Funding: \$500,000



Improving Performance of Longitudinal Joints in Airfield Asphalt Pavements

- Objective:
 - Synthesize best practices for maintaining longitudinal joints
 - Evaluate new technologies which could be used to improve joint performance
- Principal Investigator: Randy West (Auburn University)
- Project Completion: In Design
- Funding: \$200,000 ~~± \$100,000 (potential Phase 2)~~
 - Phase 2 was cancelled because of the lack of field data. PCG is discussing next steps for investigation



Other Ongoing Projects

- Mitigation of Delamination and Plastic Flow at High Speed Exits
- Feasibility of CCPR at Airfields
- Validation of Gyration for Superpave Gyrotory Compactor for Mix Design
- P401 Mixtures: Aggregate Gradation Bands
- Use of RAP in P401 Mixtures
- Airfield Asphalt Pavement Resilience



Asphalt Airfield Video Series

- Objective:
 - Develop a series of videos to pair with paving handbook for technology transfer
- Principal Investigator: Applied Research Associates
- Project Completion: Q2 2025
- Funding: \$500,000



Advanced Technologies

- Objective:
 - Evaluate which new technologies like artificial intelligence and more could be used for the FAA in its airfield work
- Principal Investigator: Continuum Infrastructure Solutions
- Project Completion: December 31, 2025
- Funding: \$200,000



Determining the Environmental Impact of Recycled PFAS-Contaminated Pavement Material

- Objective:
 - Evaluate the impact of pavement recycling on PFAS on airfields
- Principal Investigator: Tim Townsend, University of Florida
- Project Completion: Phase 1: May 2026
- Funding: \$500,000 (Phase 1 - \$100,000)



Projects Under Development

- Carbon Reduction Roadmap - \$200,000
- Marketing of AAPTTP Results - \$1,000,000
- Website for Paving Handbook - \$100,000



Current State of the Budget

- Total Current Budget: \$15.5 million
- Allocated funds: about \$12.5 million
 - Includes management time and construction of CCPR and RAP test sections at Hughes Center



What Else Should Be Considered?

<https://www.asphaltpavement.org/expertise/engineering/airports>

