



2020 Airfield Pavement Design, Evaluation & Analysis Workshop TENTATIVE AGENDA

MONDAY

6:00 – 7:15 p.m. Welcome Reception / Registration

TUESDAY

7:30 – 8:15 a.m. Breakfast / Registration

8:15 – 8:30 a.m. Workshop Introduction

8:30 – 9:15 a.m. Overview of Airfield Pavement Design
David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.

- The Evolution of Airfield Pavement Design
- Empirical Procedures
- Mechanistic-Empirical Procedures

9:15 – 10:00 a.m. Airfield Pavement Types and Pavement Performance
David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.

- Overview of Pavement Types (Flexible, Rigid, and Composite)
- Paving Materials
- Base/Subbase Materials
- Pavement Performance

10:00 – 10:15 a.m. Break

10:15 – 11:15 a.m. Subgrade Soils and Granular Materials
Monty Wade, P.E., President, Applied Pavement Technology, Inc.

- Characterizing Pavement Materials
- Evaluating In-Place Conditions
- Determining Inputs for Pavement Design
- Frost Protection Considerations

TUESDAY (CONTINUED)

- 11:15 – 12:00 noon Aircraft Traffic
David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.
- Gear Types and Naming Conventions
 - Cumulative Damage Factor (CDF)
 - Pass-to-Coverage Ratio (P/C)
 - Characterizing Aircraft Loads in FAARFIELD
- 12:00 – 1:00 p.m. Lunch
- 1:00 – 2:00 p.m. Flexible Pavement Design
Monty Wade, P.E., President, Applied Pavement Technology, Inc.
- Failure Mechanisms
 - Required Input Variables
 - Flexible Pavement Design
 - Using FAARFIELD
- 2:00 – 3:15 p.m. Workshop: Flexible Pavement Design
Monty Wade, P.E., President, Applied Pavement Technology, Inc.
- 3:15 – 3:30 p.m. Break
- 3:30 – 4:15 p.m. Rigid Pavement Design
Monty Wade, P.E., President, Applied Pavement Technology, Inc.
- Failure Mechanisms
 - Required Input Variables
 - 3-D Finite Element Model
 - Rigid Pavement Design
 - Using FAARFIELD
- 4:15 – 5:00 p.m. Workshop: Rigid Pavement Thickness Design
Monty Wade, P.E., President, Applied Pavement Technology, Inc.
- 5:00 – 5:15 p.m. Daily Workshop Wrap-Up

WEDNESDAY

- 7:30- 8:15 a.m. Breakfast
- 8:15 – 9:00 a.m. Update on AC 150/5370-10H: Standard Specifications for Construction of Airports
Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100

WEDNESDAY (CONTINUED)

- 9:00 – 10:30 a.m. Rigid Pavement Design Details
David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.
- Slab Size
 - Joint Considerations (Types, Spacing, Sealant)
 - Load Transfer
 - Reinforcing Steel
- 10:30 – 10:45 a.m. Break
- 10:45 – 11:30 a.m. Workshop: Rigid Pavement Design Details
Monty Wade, P.E., President, Applied Pavement Technology, Inc.
- 11:30 – 12:00 noon Pavement Design for Airfield Shoulders
Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100
- The Purpose of Shoulders
 - Material Requirement
 - Shoulder Design Procedure
- 12:00 – 1:00 p.m. Lunch
- 1:00 – 1:45 p.m. Overlay Design
Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100
- HMA Over HMA
 - HMA Over Rubblized PCC
 - HMA Over PCC
 - PCC Over PCC
 - PCC Over HMA
- 1:45 – 3:15 p.m. Pavement Evaluation and Overlay Considerations
David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.
- Pavement Evaluation Process
 - Analysis of Existing Pavements
 - Overlay Considerations
 - Reflection Crack Control Measures
- 3:15 – 3:30 p.m. Break
- 3:30 – 4:30 p.m. Workshop: Overlay Design
Monty Wade, P.E., President, Applied Pavement Technology, Inc.

WEDNESDAY (CONTINUED)

- 4:30 – 5:00 p.m. Current Airfield Pavement-Related Research
Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100
- 5:00 – 5:15 p.m. Workshop Daily Wrap-Up
- 6:00 – 7:00 p.m. Reception

THURSDAY

- 7:15 – 7:45 a.m. Breakfast
- 7:45 – 9:00 a.m. ACN-PCN Background and Concepts
Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100
- History and Background
 - Concept, Purpose and Definitions
 - FAA Advisory Circular and COMFAA Program
 - AC 150/5335-5C
- 9:00 – 9:30 a.m. PCN Approach for Rigid Pavements
Monty Wade, P.E., President, Applied Pavement Technology, Inc.
- How to Determine PCN for PCC Pavements
 - PCC Pavement Sample Problems and Solutions
- 9:30 – 9:45 a.m. Break
- 9:45 – 10:30 a.m. Workshop: PCN Determination for Rigid Pavement
Monty Wade, P.E., President, Applied Pavement Technology, Inc.
- 10:30 – 11:00 a.m. PCN Approach for Flexible Pavements
Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100
- How to Determine PCN for HMA Pavements
 - HMA Pavement Sample Problems and Solutions
- 11:00 – 11:45 a.m. Workshop: PCN Determination for Flexible Pavement
Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100
- 11:45 – 12:00 noon Workshop Wrap-Up/Closing Remarks