



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 <i>David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.</i> <ul style="list-style-type: none">• 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 <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i> <ul style="list-style-type: none">• Failure Mechanisms• Required Input Variables• Flexible Pavement Design• Using FAARFIELD
2:00 – 3:15 p.m.	Workshop: Flexible Pavement Design <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i>
3:15 – 3:30 p.m.	Break
3:30 – 4:15 p.m.	Rigid Pavement Design <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i> <ul style="list-style-type: none">• 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 <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i>
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 <i>Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100</i>

WEDNESDAY (CONTINUED)

9:00 – 10:30 a.m.	Rigid Pavement Design Details <i>David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.</i> <ul style="list-style-type: none">• 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 <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i>
11:30 – 12:00 noon	Pavement Design for Airfield Shoulders <i>Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100</i> <ul style="list-style-type: none">• The Purpose of Shoulders• Material Requirement• Shoulder Design Procedure
12:00 – 1:00 p.m.	Lunch
1:00 – 1:45 p.m.	Overlay Design <i>Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100</i> <ul style="list-style-type: none">• 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 <i>David G. Peshkin, P.E., Vice President/Chief Engineer, Applied Pavement Technology, Inc.</i> <ul style="list-style-type: none">• 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 <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i>

WEDNESDAY (CONTINUED)

4:30 – 5:00 p.m.	Current Airfield Pavement-Related Research <i>Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100</i>
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 <i>Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100</i> <ul style="list-style-type: none">• 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 <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i> <ul style="list-style-type: none">• 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 <i>Monty Wade, P.E., President, Applied Pavement Technology, Inc.</i>
10:30 – 11:00 a.m.	PCN Approach for Flexible Pavements <i>Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100</i> <ul style="list-style-type: none">• 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 <i>Doug Johnson, P.E., Civil Engineer – Pavement, FAA AAS-100</i>
11:45 – 12:00 noon	Workshop Wrap-Up/Closing Remarks