Airfield Pavement Design, Evaluation & Analysis Workshop
AGENDA

January 22 – 24, 2018 | Baltimore, Maryland

MONDAY, JANUARY 22, 2018

7:30 – 8:00 **REGISTRATION – BREAKFAST ON YOUR OWN**

8:00 – 8:20 **Course Introduction**

8:20 – 9:00 **Overview of Airfield Pavement Design**
Evolution of Airfield Pavement Design
Empirical Procedures
Mechanistic-Empirical Procedures

9:00 – 9:50 **Airfield Pavement Types and Pavement Performance**
Overview of Pavement Types (Flexible, Rigid, Composite)
Paving Materials
Base/Subbase Materials
Pavement Performance

9:50 – 10:10 **BREAK**

10:10 – 11:10 **Subgrade Soils and Granular Materials**
Characterizing Pavement Materials
Evaluating in Place Conditions
Determining Inputs for Pavement Design
Frost Protection Considerations

11:10 – 12:00 **Aircraft Traffic**
Gear Types and Naming Conventions
Cumulative Damage Factor (CDF)
Pass-to-Coverage Ratio (P/C)
Characterizing Aircraft Loads in FAARFIELD

12:00 – 1:00 **LUNCH**

1:00 – 2:00 **Flexible Pavement Design**
Failure Mechanisms
Required Input Variables
Flexible Pavement Design
Using FAARFIELD

2:00 – 3:10 **Workshop: Flexible Pavement Design**

3:10 – 3:30 **BREAK**

3:30 – 4:20 **Rigid Pavement Design**
Failure Mechanisms
Required Input Variables
3-D Finite Element Model
Rigid Pavement Design
Using FAARFIELD

4:20 – 4:45 **Update on Advisory Circular 150/5370-10H, Standard Specifications for Construction of Airports**

4:45 – 5:00 **Current Airfield Pavement-Related Research**

5:00 **Daily Wrap-Up**

5:00 – 6:00 **WELCOME RECEPTION**

Airfield Pavement Design, Evaluation & Analysis Workshop

January 22 – 24, 2018 | Baltimore, Maryland

TUESDAY, JANUARY 23, 2018

BREAKFAST ON YOUR OWN

8:00 – 8:50 **Workshop: Rigid Pavement Thickness Design**

8:50 – 10:20 **Rigid Pavement Design Details**
Slab Size
Joint Considerations (Types, Spacing, Sealant)
Load Transfer
Reinforcing Steel

10:20 – 10:40 **BREAK**

10:40 – 11:30 **Workshop: Rigid Pavement Design Details**

11:30 – 12:00 **Pavement Design for Airfield Shoulders**
Purpose of Shoulders
Material Requirement
Shoulder Design Procedure

12:00 – 1:00 **LUNCH**

1:00 – 1:50 **Overlay Design**
HMA over HMA
HMA over Rubblized PCC
HMA over PCC
PCC over PCC
PCC over HMA

1:50 – 3:10 **Pavement Evaluation and Overlay Considerations**
Pavement Evaluation Process
Analysis of Existing Pavements
Overlay Considerations
Reflection Crack Control Measures

3:10 – 3:30 **BREAK**

3:30 – 4:50 **Workshop: Overlay Design**

4:50 – 5:00 **Daily Wrap-Up**

Airfield Pavement Design, Evaluation & Analysis Workshop

January 22 – 24, 2018 | Baltimore, Maryland

WEDNESDAY, JANUARY 24, 2018

BREAKFAST ON YOUR OWN

7:30 – 8:50 **ACN-PCN Background and Concepts**
History and Background
Concept, Purpose, and Definitions
FAA Advisory Circular and COMFAA Program
Advisory Circular 150/5335-5C

8:50 – 9:00 **BREAK**

9:00 – 9:30 **PCN Approach for Rigid Pavements**
How to Determine PCN for PCC Pavements
PCC Pavement Sample Problems and Solutions

9:30 – 10:10 **Workshop: PCN Determination for Rigid Pavement**

10:10 – 10:20 **BREAK**

10:30 – 11:00 **PCN Approach for Flexible Pavements**
How to Determine PCN for HMA Pavements
HMA Pavement Sample Problems and Solutions

11:00 – 11:40 **Workshop: PCN Determination for Flexible Pavement**

11:40 – 12:00 **Wrap-Up Session**