The American Concrete Pavement Association will present a three-day national workshop on best practices used in the design, construction, and rehabilitation of concrete pavements used for airport applications.

The workshop program will feature technical presentations by subject matter experts with practical experience in the topic areas. Leading the discussions will be experts from the U.S. Army Corps of Engineer’s Transportation System Center, the Headquarters office of the FAA, ACPA, and companies with direct involvement in FAA and USACE projects.

WHEN AND WHERE?
The workshop will be held October 22nd through the 24th, at the Embassy Suites by Hilton Fort Lauderdale, 1100 SE 17th Street, Fort Lauderdale, Florida, 33316, USA (954) 527-2700. The program will be held from 8:00 AM to 5:00 PM (EDT) on the first and second days, and from 8:00 AM to 3:00 PM on the third day. (Continental breakfast will begin at 7:30 AM all three days.)

WHO SHOULD ATTEND?
The workshop is intended for owners’ representatives/engineers, contractor personnel, and others with an interest in concrete pavement design, construction, and rehabilitation for airport applications.

PDH CREDITS
Participants may earn up to 20 professional development hours for this training and technology transfer event. ACPA awards professional development hours with the assumption of their use in self-reporting states and provinces. Reporting is done on an honor basis, and participants are responsible for maintaining their own records and determining the applicability and acceptance with their respective licensing/certification organization.

EVENT REGISTRATION
Registration is available through ACPA’s online system. The cost of the three-day workshop is $850 for members and government employees, and $975 for non-members. To register online, please follow this link:
http://www.acpa.org/airportworkshop/.
7:30 AM - 8:00 AM
CONTINENTAL BREAKFAST

8:00 AM - 8:15 AM
WELCOME AND WORKSHOP AGENDA
Jerry Voigt - President and CEO, ACPA
An overview of the three-day workshop, learning objectives, and expected outcomes.

8:15 AM - 9:00 AM
FAA SOUTHERN REGION WELCOME AND DISCUSSION OF REGIONAL ISSUES
Anthony Cochran - FAA Southern Region
A discussion about FAA paving projects and other important issues to the FAA Southern Region.

9:00 AM - 9:45 AM
UNITED STATES DEPARTMENT OF DEFENSE’S AIR FORCE WELCOME, INTRODUCTION, AND DISCUSSION OF AGENCY CONCERNS
Dr. Craig Rutland - Pavement Subject Matter Expert, Air Force Civil Engineering Center
An overview of airfield pavement requirements of critical importance to the US Air Force. The emphasis is on why strict requirements for high quality and durable pavements are essential.

9:45 AM - 10:00 AM
BREAK

10:00 AM - 10:45 AM
CONCRETE PAVING FUNDAMENTALS
Angela Folkestad - CO/WY Chapter, ACPA
A focus on basic terminology used in airfield pavement design and construction; critical design aspects; important features of pavement performance; and pavement distresses and their causes. The discussion also will focus on quality, including the implication of poor quality, lack of process control, and the effects of variability.

10:45 AM - 11:15 AM
OVERVIEW OF DEPARTMENT OF DEFENSE GUIDANCE (UFC’S & ENGINEERING TECHNICAL LETTERS)
Harold Honey
Michael Baker
A discussion about guide documents that must be followed in the design and construction of airfield pavements. This module also focuses on the required guidance and engineering technical letters that should be followed for military airfield pavement design and construction.

11:15 AM - 11:45 AM
OVERVIEW OF FEDERAL AVIATION ADMINISTRATION GUIDANCE ON PAVEMENT DESIGN AND CONSTRUCTION (ADVISORY CIRCULARS & ENGINEERING BRIEFS)
Doug Johnson - FAA
Numerous guide documents exist that must be followed for the design and construction of commercial pavements using Airport Improvement Program (AIP) funds. This module will discuss the required guidance and engineering briefs that should be followed for FAA airfield pavement design and construction.

11:45 AM - 12:00 PM
PRE-CONSTRUCTION ACTIVITIES
Gary Mitchell - Vice President of Airports & Pavement Technology, ACPA
Various pre-construction activities must be undertaken prior to beginning construction of airfield pavements. Numerous items that must be considered during the pre-bid, bidding, and pre-construction phases of a project will be discussed. Some of these items include the pre-bid meeting, partnering, qualifying construction materials, and pre-paving conference.

12:00 PM - 1:00 PM
LUNCH (PROVIDED)

1:00 PM - 1:45 PM
FAA SPECIFICATIONS FOR SUBBASE, BASE, AND STABILIZED BASE CONSTRUCTION
Doug Johnson - FAA
Subbase, base, and stabilized base construction are all important for proper airfield pavement construction. The module will discuss FAA specification requirements for P-154, P209, P304, and other specification items in AC 150/5370-10.
1:45 PM - 2:30 PM
MIX DESIGN CONSTITUENTS AND PROCESSES TO MEET THE CORP OF ENGINEERS REQUIREMENTS
Harold Honey
Michael Baker
There are many misunderstandings pertaining to the rigorous Corps of Engineers’ requirements for mix design constituents and processes to meet the requirements of 32 13 14.13. This module will present the process and what is required for the mixture design submittal to meet the requirements.

2:30 PM - 2:45 PM
BREAK

2:45 PM - 3:15 PM
THE CASE FOR SLAG CEMENT IN AIRFIELD PAVEMENTS
Gordon McLellan - Lehigh Hanson, Inc.
Although slag is being used at many airports as a mitigator for ASR in concrete mixtures, it is important to know that the FAA limits fly ash use to 10% when coupled with slag cement, and up to a maximum replacement of 55% of the cement. However, cases have shown that when slag cement is coupled with fly ash in excess of 10%, ASR expansion was mitigated. This module will present the history of slag cements, address the pros and cons of using slag cement and explain the current uses and limitations. This module will also dispel myths pertaining to the technical ramifications of using slag cement in concrete paving mixtures.

3:15 PM - 4:00 PM
PLANT CERTIFICATION, PLANT MANAGEMENT, AND UNIFORMITY TESTING
Gary Mitchell - Vice President of Airports & Pavement Technology, ACPA
Concrete batch plants must meet certification requirements and produce consistent high-quality concrete to be delivered to the paver. This presentation will discuss what is required for plant certification, concrete plant management requirements, and uniformity testing requirements to meet military and commercial airfield pavement requirements.

4:00 PM - 4:45 PM
TESTING REQUIREMENTS FOR AIRFIELD PAVEMENTS – WHAT DO THEY REALLY TELL US?
Toy Poole - CTL Group
Various testing requirements are referenced in the military and commercial airport concrete pavement specifications. These testing requirements contain instructions on how to conduct the testing, tolerances, repeatability, and significance. In addition, interpretation of various testing protocols and specification requirements will be discussed.

4:45 PM - 5:00 PM
DAY ONE WRAP UP - DISCUSSION, AND Q&A

Earn Valuable Professional Development Hours
Participants may earn up to 20 professional development hours. Certificates of completion/ PDH credits are awarded at the conclusion of workshop.

This program is oriented toward states/provinces that allow self-reporting for licensure purposes. Participants are strongly advised to check the applicability of this training along with other reporting requirements in advance of taking this course.

Participants interested in earning PDH’s are responsible for determining the applicability of any training programs toward licensing requirements in their respective states.

Embassy Suites by Hilton
Fort Lauderdale
1100 SE 17th Street Causeway
Fort Lauderdale, FL 33316

A discounted single rate of $154 per night is available for workshop participants. The discounted rate is available until September 30 (or until sold out). For room reservation information, please call 1-855-271-3617 and use group code “AWS.”

Please click this link to make an online reservation.
October 23

CONSTRUCTION TECHNIQUES, QUALITY CONTROL AND INSPECTION

7:30 AM - 8:00 AM
CONTINENTAL BREAKFAST

8:00 AM - 8:15 AM
REVIEW AND Q&A FROM DAY ONE

8:15 AM - 9:00 AM
CONSTRUCTION TECHNIQUES
Gary Mitchell - Vice President of Airports & Pavement Technology, ACPA
A discussion on the various considerations for construction techniques will include: concrete placement issues, dowel bar installation and tolerances, concrete consolidation/vibration effort, finishing/curing, protection against rain, and more. In addition, there will be a detailed discussion of joint type and layout, as well as joint sealing.

9:00 AM - 10:00 AM
CONTRACTOR QUALITY CONTROL/QUALITY ASSURANCE REQUIREMENTS FOR QUALITY CONCRETE PAVEMENTS
Martin Holt - IHC
Attendees will learn what should be included in a contractor quality control (QC) program. Topics will include process control requirements, contractor QC requirements, testing requirements, control charts, reporting, etc. The information will be from a contractor’s point of view to provide an understanding about using a QC program to exceed the specification requirement.

10:00 AM - 10:15 AM
BREAK

10:15 AM - 11:00 AM
USING HIPERPAV HIGH PERFORMANCE CONCRETE PAVING SOFTWARE TO MONITOR UNCONTROLLED CRACKING RISK
Sabrina Garber - The Transtec Group
A temperature management plan is important for paving in warm weather. This module will discuss using HIPERPAV to monitor theoretical thermal stresses during concrete placement, finishing, and curing as a contractor’s tool to monitor the risk of early-aged, uncontrolled cracking.

11:00 AM - 11:45 AM
CONSTRUCTION INSPECTION – WHAT THE DEPARTMENT OF DEFENSE IS LOOKING FOR
Ryan Hill/Ben Fonte - Air Force Institute of Technology
Construction inspection is an important part of airfield pavement construction. Many times the contractor or construction team may not fully understand the requirements needed to meet the specification; likewise, the inspector may not fully understand the intent of the specifications. Attendees will gain an understanding of construction inspection requirements from the agency point of view.

11:45 AM - 1:00 PM
LUNCH (PROVIDED)
**1:00 PM - 2:00 PM**
**CONCRETE PAVER SET-UP AND OPERATION TO MEET P-501 AND 32 13 14.13 REQUIREMENTS**
Ron Guntert - Guntert & Zimmerman
This module will discuss slipform paving equipment and requirements to meet the concrete pavement specification. Important components of the slipform paver, operations, concrete mixture requirements, etc. will be discussed.

**2:00 PM - 3:00 PM**
**3D STRINGLESS CONTROL SYSTEMS**
Matthew Morrison - GOMACO
The state-of-the-art method for slipform paving is stringless technology. This module will present the current methodologies for stringless control systems, how they work, and how to produce high quality, smooth pavements without using stringlines.

**3:00 PM - 3:15 PM**
**BREAK**

**3:15 PM - 4:00 PM**
**AIRFIELD PAVEMENT SMOOTHNESS**
Michael Gerardi - APR Consultants
Airfield pavement smoothness discussion will center around short- and long-wave length smoothness, effects of rough pavements on aircraft, and various methods of measuring airfield pavement smoothness.

**4:00 PM - 4:45 PM**
**AIRFIELD PAVEMENT MARKING**
Donna Speidel - Sightline, Inc.
Airfield marking is often incidental to an airfield paving project. When the pavement marking process is done correctly, the marking can last for several years; however, when poorly installed, pavement markings can fail within weeks or months. This presentation will focus on best practices that result in quality materials installed by appropriate equipment that comply with basic application requirements. A discussion on the standard specifications, construction techniques and practices that will result in longer lasting markings, and commonly encountered problems in meeting project specifications will be presented. In addition, identification of practices that result in premature failure and poor performance will be discussed.

**4:45 PM - 5:00 PM**
**DAY TWO WRAP UP - DISCUSSION, AND Q&A**

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**Group Discussion Focuses on Solutions**

A popular element of ACPA’s airport pavement training program is open discussion about interpreting and applying airport concrete pavement specifications used by the Federal Aviation Administration (FAA) P–501 and Unified Facilities Guide Specification (UFGS) 32 13 11 specifications.

This group discussion serves as a guide for interpreting, gaining a better understanding, and gaining practical insights about the specifications.

The discussion will be based on field experience and guidance from top pavement experts. Much of this information has been gained by working with contractors, owner’s representatives, military engineers, and others with direct, first-hand experience. It is not intended as a basic primer on the specifications; instead, it will cover details of specification-related issues, challenges, and questions that commonly occur on the grade.
7:30 AM - 8:00 AM
Continental Breakfast

8:00 AM - 9:30 AM
P-501 Federal Aviation Administration Concrete Pavement Specification
Doug Johnson - FAA
FAA Advisory Circular 150/5370-10, Item P-501 is the guide specification for airfield concrete pavement construction. In this lesson, attendees will gain an understanding of the requirements and intent of the airfield concrete pavement specification. We will define the agency requirements for producing high quality, durable, pavements. Topics will include aggregate and other material requirements, tolerances, strength requirement, and acceptance criteria.

9:30 AM - 9:45 AM
Break

9:45 AM - 10:15 AM
Planning for Hot or Cold Weather Paving
Gary Mitchell - Vice President of Airports & Pavement Technology, ACPA
Airfield paving projects must be performed during hot or cold weather. Discussion in this lesson will center around construction methods for hot and/or cold weather paving.

10:15 AM - 12:00 PM
Unified Facilities Criteria (UFC) 32 13 14.13 Concrete Pavement Specifications
Kevin Pavlik - USACE Transportation System Center
Unified Facilities Criteria part 32 13 14.13 is the guide specification for airfield concrete pavement construction. Attendees will gain an understanding of the requirements and intent of the airfield concrete pavement specification. Discussions will center around agency requirements for producing high quality, durable pavement. Topics will include aggregate and other material requirements, tolerances, contractor expectations, and contractor quality control expectations.

12:00 PM - 1:00 PM
Lunch

1:00 PM - 2:00 PM
Lessons Learned: When Things Go Wrong
Jim Lafrenz - Tigerbrain Engineering
Airfield pavement construction does not always go as planned. The attendees will be presented with the lessons learned from various projects. This discussion will focus on specific examples of how to identify, resolve and even prevent unexpected issues on the grade.

2:00 PM - 2:45 PM
Case Study: Fort Lauderdale International Airport Runway Keel Replacement
Broward County Aviation Department (BCAD)
Boh Brothers - Kimley-Horn and Associates
Attendees will have the opportunity to hear from the design and construction team on the reconstruction of Runway (10L-28R) keel section. This fast-track project is an example of teamwork beginning from the design phase all the way through construction. Perspectives from each stakeholder will be discussed followed by a question and answer session.

2:45 PM - 3:00 PM
Day Three Wrap Up
Discussion, Evaluation and Q&A