July 25 through 27, 2017

$750 – Members and Government Officials

$925 – Non Members

Airport Pavement Design & Construction Workshop

Also includes group discussion on:
Understanding and Applying FAA P–501 and UFGS 32 13 11 Specifications

Hilton Omaha
1001 Cass Street
Omaha, Nebraska

1.800.HILTONS
(1.800.445.8667) Reservations

402.998.3400 Local
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 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 July 25 through 27, at the Hilton Omaha 1001 Cass Street, Omaha, Nebraska 68102. The program will be held from 8 a.m. to 5 p.m. (CDT) the first day and second days, and from 8 a.m. to 3 p.m. the third day. (Continental breakfast will begin at 7:30 a.m. 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 13.5 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 for 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 $750 for members and government employees, and $925 for non–members. To register online, please follow this link: [http://www.acpa.org/airportworkshop/](http://www.acpa.org/airportworkshop/).

* Government employees refers to employees of federal agencies, the military, state DOT’s, counties, municipalities, and townships.

Group Discussion Focuses on Solutions
A popular element of ACPA’s airport pavement training program is open discussions 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.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>Continental Breakfast</td>
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<tr>
<td>8:00 AM - 8:30 AM</td>
<td>Welcome and Concrete around the US – Award Projects (Jerry Voigt, ACPA)</td>
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<td>This presentation will welcome everyone to the workshop. The attendees will provide self-introductions and ACPA President and CEO, Jerry Voigt will outline the content of the workshop and discuss the objective of the concrete paving industry in holding this all-important workshop. In addition, some successful award winning airfield concrete paving projects will be discussed.</td>
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<td>8:30 AM - 9:05 AM</td>
<td>FAA – Central Region Welcome and Discussion of Regional Issues (Dan Wilson, FAA Central Region)</td>
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<td>This presentation will welcome all to the FAA Central Region. Central Region pavement engineer, Dan Wilson will discuss expectations of the FAA for paving projects as well as highlight and discuss some of the issues important to the FAA Central Region.</td>
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<td>9:05 AM - 9:45 AM</td>
<td>USACE Welcome, Introduction, and Discussion of Agency Concerns (David Ray, USACE TSC) - (Invited)</td>
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<td>In this presentation, David Ray, Director of the TSC will discuss the TSC’s structure, services and staff so the attendee will have an understanding who the TSC is and what the TSC responsibilities are for their customers. In addition, the discussion will center around the airfield pavement using agency’s concerns and why strict requirements for high quality, durable pavements are so important.</td>
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<td>9:45 AM - 10:00 AM</td>
<td>Break</td>
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<td>10:00 AM - 10:45 AM</td>
<td>Concrete Paving Fundamentals (Angela Folkestad, CO/WY Chapter ACPA)</td>
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<td>This lesson will discuss basic terminology of airfield pavement, critical design aspects, important components for pavement performance, various distresses and their causes, and quality in airfield pavements. In addition, implication of poor quality, lack of process control, and the effect of variability will be discussed.</td>
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<td>10:45 AM - 11:15 AM</td>
<td>Overview of Department of Defense Guidance (UFC’s &amp; Engineering Technical Letters) (Harold Honey, Michael Baker)</td>
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<td>Numerous guide documents exist that must be followed for the design and construction of military pavements. This lesson will present a brief discussion of the required guidance and engineering technical letters that should be follow for military airfield pavement design and construction.</td>
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<td>Numerous guide documents exist that must be followed for the design and construction of commercial pavements using Airport Improvement Program (AIP) funds. This lesson will present a brief discussion of the required guidance and engineering briefs that should be follow for FAA airfield pavement design and construction.</td>
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<td>11:45 AM – Noon</td>
<td>Pre-Construction Activities (Gary Mitchell, ACPA)</td>
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<td>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.</td>
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<tr>
<td>Noon – 1:00 PM</td>
<td>Lunch (Provided)</td>
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<td>1:00 PM – 1:45 PM</td>
<td>FAA Specifications for Subbase, Base, and Stabilized Base Construction (Doug Johnson, FAA)</td>
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<td>Subbase, base, and stabilized base construction are all important for proper airfield pavement construction. The lesson will present and discuss FAA specification requirements for P-154, P209, P304, and other specification items in AC 150/5370-10.</td>
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<td>1:45 PM – 2:30 PM</td>
<td>Mix Design Constituents and Processes to Meet the Corp of Engineers Requirements (Brad Jones, USACE TSC)</td>
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<td>There are many misunderstandings pertaining to the Corps of Engineers requirements for mix design constituents and processed to meet the requirements of 32 13 11. The Corps of Engineers requirements are continued on page 4...</td>
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more rigorous than other agencies. This lesson will present the process and what is required for the mixture design submittal to meet the 32 13 11 requirements.

2:30 PM – 2:45 PM — Break

2:45 PM – 3:15 PM — Concrete Mixture Optimization for Concrete Pavements (Gary Mitchell, ACPA)

The U.S. Department of Defense and FAA require concrete mixture to meet certain coarseness and workability requirements. These requirements require concrete mixture optimization. This lesson will be a continued discussion from the previous presentation and present what concrete mixture optimization is, why we want to do it, and how to do it. Some examples and discussion of mixture optimization tools will also be presented.

3:15 PM – 4:00 PM — Plant Certification, Plant Management, and Uniformity Testing (Gary Mitchell, 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 requirement, 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) \textbf{(Invited)}

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 questions and answers.

7:30 AM – 8:00 AM – Continental Breakfast

8:00 AM – 8:15 AM – Review and Q & A from Day 1

8:15 AM – 9:00 AM – Construction Techniques (Gary Mitchell, ACPA)

This lesson will discuss various considerations for construction techniques. Topics of discussion will include: concrete placement issues, dowel bar installation and tolerances, concrete consolidation/vibration effort, finishing/curing, protection against rain, etc. In addition, this lesson will include a detailed discussion of joint type and layout as well as joint sealing.

9:00 AM – 9:45 AM – Contractor Quality Control/Quality Assurance Requirements for Quality Concrete Pavements (Martin Holt, IHC)

In this lesson, attendees will learn what should be included in a contractor quality control program. Topics of discussion include process control requirements, contractor QC requirements, testing requirements, control charts, reporting, etc. Emphasis will be from the contractor point of view as to what should be included in a QC program to exceed the specification requirement.

9:45 AM – 10:00 AM – Break

10:00 AM – 10:40 AM – Using HIPERPAV High Performance Concrete Paving Software to Monitor Uncontrolled Cracking Risk (Sabrina Garber, The Transtec Group)

A temperature management plane is important for paving in warm weather. This lesson 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.

10:40 AM – 11:20 AM – Quality Control Requirement: Corps of Engineers Requirements related to Division 01 keyed to 32 13 11 (Greg Gorup, USACE TSC)

This lesson will be a continuation of the contractor quality control discussion ... but will be from the perspective of the agency. Discussion will center around requirements to meet the concrete specification and expectations of the owner. It will highlight the UFGS Division 01 requirements keyed to 32 13 11

\textbf{Continued on page 5 ...}

Construction inspection is an important part of airfield pavement construction. Many times, the contractor or construction team may not fully understand the requirements to meet the specification; likewise the inspector may not fully understand the intent of the specifications. This lesson will provide the attendees an understanding of construction inspection requirements from the agency point of view.

Noon – 1:00 PM – Lunch (provided)

1:00 PM – 2:00 PM – Concrete Paver Set-Up and Operation to Meet P-501 and 32 13 11 Requirements (Ron Guntert, Guntert & Zimmerman)

This lesson will discuss slip form paving equipment and requirements to meet the concrete pavement specification. Important components of the slip form paver, operations, concrete mixture requirements, etc. will be discussed.

2:00 PM – 3:00 PM – 3D Stringless Control Systems (Mathew Morrison, GOMACO)

The state-of-the-art method for slipform paving is stringless technology. This lesson 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-invited)

In this lesson airfield pavement smoothness will be presented. 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 – Demolition and Pavement Maintenance Procedures (Gary Mitchell, ACPA)

Many airfield paving project are reconstruction of existing facilities. Proper demolition of existing features must be considered to protect those features that must remain intact. Likewise, in many pavement maintenance applications, remaining features must remain. In this lesson, the attendee will learn what is expected for proper demolition of existing features to protect existing pavement features to remain in place. Proper methods of pavement removal will be discussed in detail. In addition, various methods of pavement maintenance such as spall repair, full depth patching, partial depth patching, joint resealing, etc. will be discussed.

4:45 PM – 5:00 PM – Day two wrap up, discussion, and questions and answers.

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7:30 AM – 8:00 AM – Continental Breakfast

8:00 AM – 9:00 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, the attendees will gain an understanding of the requirements and intent of the airfield concrete pavement specification. Discussion 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.

9:00 AM – 10:00 AM – Unified Facilities Criteria (UFC) 32 13 11 Concrete Pavement Specification (Harold Honey, Michael Baker Corporation)

Unified Facilities Criteria part 32 13 11 is the guide specification for airfield concrete pavement construction. In this lesson, the attendees will gain an understanding of the requirements and intent of the airfield concrete pavement specification. Discussion 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.

10:00 AM – 10:15 AM – Break

10:00 AM – 10:45 AM – Planning for Fast Track Paving (Gary Mitchell, ACPA)

Many airfield paving project for both the commercial and military airfield must be constructed under time constraints. Fast-track paving is any project where a
normal construction schedule has been reduced. In this lesson topic of discussion will include how to approach a fast-track construction project. Designing, planning, and constructing under reduced schedule will be discussed.

10:45 AM – 11:30 AM – Planning for Hot or Cold Weather Paving (Gary Mitchell, ACPA)

Often, 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.

11:30 AM – 1:00 PM – Lunch

1:00 PM – 2:00 PM – Lessons Learned from When Things Go Wrong (Jim Lafrenz, Tigerbrain Engineering)

Sometimes during airfield pavement construction things do not always go as planned. In these cases, many lessons have been learned. In the lesson, the attendees will be presented with lessoned learned from when things went wrong. The discussion will center around specific instances and examples where problems and issues occurred and these issues were dealt with.

2:00 PM – 2:30 PM – Final thoughts from the Agencies (Doug Johnson, Dan Wilson, Brad Jones, Greg Gorup)

In this lesson, attendees will have the opportunity to discuss various topics and ask questions of the pavement engineers representing the FAA and Transportation System Center. Discussion will be held in a panel format with opportunity to discuss items that may not have been cover during the workshop.

2:30 PM – 3:00 PM – Day three wrap up, discussion, and questions and answers.

Earn Valuable Professional Development Hours

Participants may earn up to 13.5 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.

13.5 PDH’s

Hotel Information

The workshop will be held at the Hilton Omaha Hotel. A discounted single rate of $107 per night is available for workshop participants. Discount rate is available until June 23 (or until sold out).

For room reservation information, please call 1.880.HILTONS (1.800.445.8667) and use group code “ACP.”

If you prefer to make reservations on the web, please follow this link: https://aws.passkey.com/go/ACPCBPWorkshop2017.