

FAA Guidance: Update on Advisory Circulars and Engineering Briefs

FAA Airport Pavement Working
Group Meeting
April 15 – 17, 2013
Atlantic City, New Jersey

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Federal Aviation
Administration



Presentation Objectives

- Summarize work in Airports Safety & Standards Airport Engineering Division (AAS-100).
- Provide information on the Advisory Circular (AC) and Engineering Brief (EB) processes.
- Guidance on the Airports internet web site.
- Availability of Airport-Related R&D Products.



Airport Engineering Division AAS-100

- Division Manager
- Assistant Manager (primarily for Airports GIS)
- Administrative Assistant
- National Resource Expert on Air Space
- 7 Civil Engineers (1 pavements, 1 vacant)
- 3 Electrical/Electronics Engineers (+1)
- ACRP Research Engineer (Mechanical) (+1)
- Airport Safety Data Program (Program Manager)
- Airports GIS (Computer Scientist)
- Technical Support Contractor (ISI)



FAA Guidance

- FAA guidance is part of the authorizing legislation for airport development using Federal funds.
- FAA airport design, construction, and maintenance guidance are contained in Advisory Circulars, the 150's series.
- Interim FAA airports engineering guidance is provided in Engineering Briefs.
- FAA airport guidance is available from FAA web sites : <http://www.faa.gov/arp/>



Establishing or Changing Guidance

- HQ Office Initiates and Prepares Draft.
- Review by HQ Airports Offices.
- Revised Draft Sent for Concurrent Review to FAA Regions and Industry.
 - The Boeing Company and the Airports Consultants Council (ACC) Receive Copies of Draft Changes and Reviews.
 - Tri-Service Airfield Pavement Working Group Team and ASCE T&DI APC Reviews Draft Changes.
- Comments Accepted for 60 days (General).
- Change Finalized.
- FAA Legal Review, Office Director Signs.



What Delays a Change

- Non-Concurrence from HQ Offices.
- Non-Concurrence from FAA Regions.
- Inability to Reconcile Comments from Boeing, ACC, Peer Review Associations, or Industry.
- Substantive Alterations to a Proposed Change May Require New Draft.



Airports Web Site



<http://www.faa.gov/airports/engineering/>

The screenshot shows the FAA website's navigation menu. The 'Airports' tab is selected, and its dropdown menu is open. The 'Engineering, Design & Construction' option is highlighted with a green arrow. Another green arrow points to the 'Airports' tab itself. The website header includes the FAA logo, 'Federal Aviation Administration', and navigation links for 'FAA Home', 'About FAA', 'Jobs', 'News', 'A-Z Index', and 'All Visitors'. A search bar is also present. The main content area features a 'News & Updates' section with an image of an airplane, a 'Top Requests' section with links to 'Airport Status and Delays', 'Jobs at FAA', 'Accident and Incident Data', 'Become an air traffic controller', 'FSDOs', and 'Forms', and a 'Regulations & Guidelines' section with links to 'Federal Aviation Regulations (FAR)', 'Advisory Circulars (ACs)', 'Airworthiness Directives (ADs)', 'Recent Rulemaking Documents', 'Orders & Notices', and 'Temporary Flight Restrictions (TFRs)'. There is also a 'Number Inquiry' section with a search box and a 'Go' button.



Environmental Program
Major Airport Development
News & Information
Passenger Facility Charge (PFC) Program
Planning & Capacity
Resources
Runway Safety

Advisory Circulars (ACs)

- Series 150 AC Library
 - Airport GIS ACs
 - Design, Construction, Maintenance ACs
 - Draft ACs
 - New and Revised ACs
- Other FAA ACs
- DOT Special Collections - Historical ACs (1957-2000)

Contact Us

- Airport Engineering Division

Data, Tools, & Resources

- Aircraft Characteristics Database
- Airport Acronyms
- Airport Data and Contact Information
- Airport Design Software
- Airport Diagrams (digital - Terminal Procedures Publication)
- National Flight Procedures (Instrument Approach Procedures)
- Training Videos

Guidance & Policy

- ADC/FAA Best Practices, 2008 (PDF)
- Engineering Briefs (EBs)
- Flight Procedure Policies and Guidance
- Orders
- Technical Note: Development of a Visual Aid to Indicate Temporary Runway Closure (1987) (PDF, 1.32 MB)
- TERPs Instruction Letters (TILS)

Publications & Forms

- Air Traffic Publications
 - Aeronautical Information Manual (AIM)
- FAA Technical Center Library
- Federal Register Notices
- Forms
- Orders
- Reports

Research & Development

- Airport Cooperative Research Program (ACRP)
 - ACRP Reports
- Airport Technology Research and Development
- National Airport Pavement Test Facility

Regional Supplemental Guidance

- Alaskan (AK)
- Central (IA, KS, MO, NE)
- Eastern (DE, MD, NJ, NY, PA, VA, WV)
- Great Lakes (IL, IN, MI, MN, ND, OH, SD, WI)
- New England (CT, ME, MA, NH, RI, VT)
- Northwest Mountain (CO, ID, MT, OR, UT, WA, WY)
- Southern (AL, FL, GA, KY, MS, NC, PR, SC, TN, VI)
- Southwest (AR, LA, NM, OK, TX)
- Western-Pacific (AZ, CA, HI, NV)

Related Information on Non-FAA Sites



Series 150 Advisory Circulars (ACs) for Airport Projects

 Print  Email | Updated: 11:49 am ET March 10, 2010

Search Content, Number, Title, Description, or Office

Topic: Status:

<http://www.faa.gov/>

<http://www.faa.gov/airports/>

<http://www.faa.gov/airports/engineering/>

http://www.faa.gov/airports/resources/advisory_circulars/



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FY11/12 – Updates & Changes 'Pavement' Advisory Circulars

5100-13B DEVELOPMENT OF STATE STANDARDS FOR NONPRIMARY AIRPORTS [8/31/2011]

5370-15B AIRSIDE APPLICATIONS FOR ARTIFICIAL TURF [9/30/2011]

5370-17 AIRSIDE USE OF HEATED PAVEMENT SYSTEMS [3/29/2011]

5380-08A HANDBOOK FOR IDENTIFICATION OF ALKALI-SILICA REACTIVITY IN AIRFIELD PAVEMENTS **CANCELLED**

5335-5B STANDARD METHOD FOR REPORTING AIRPORT PAVEMENT STRENGTH (PCN) [8/31/2011]

5370-10F STANDARD FOR SPECIFYING CONSTRUCTION OF AIRPORTS [9/30/2011]

5370-11B USE OF NONDESTRUCTIVE DEVICES IN THE EVALUATION OF AIRPORT PAVEMENTS [9/30/2011]



FAA AC 150/5335-5B

STANDARD METHOD FOR REPORTING AIRPORT PAVEMENT STRENGTH (PCN)

- The Pavement Classification Number (PCN) field has been added to FAA Form 5010 and data collection is underway.
- During each airport inspection, the airport owner will be asked to provide runway PCN information.
- This means the Aircraft Gross Weight fields on the 5010 will no longer be used to describe load carrying capacity of runways.



AC 150/5335-5B, Changes from -5A

- The procedure for selecting the critical aircraft was substantially revised.
- The procedure used in AC 150/5335-5A for computing equivalent departures was replaced by cumulative damage factor (CDF).
- Except for obtaining the structure and aircraft properties, the procedure was completely automated in a revised version of COMFAA.
- A spreadsheet application was developed to facilitate determining the evaluation thickness and organizing the PCN results.



AC 150/5335-5A ...PCN

 U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		AIRPORT MASTER RECORD		PRINT DATE: 10/05/2009 AFD EFF 08/27/2009 Form Approved OMB 2120-0015	
> 1 ASSOC CITY:	BALTIMORE	4 STATE: MD	LOC ID: BWI	FAA SITE NR: 08456.*A	
> 2 AIRPORT NAME:	BALTIMORE/WASHINGTON INTL THURGOOD MARSHAL	5 COUNTY: ANNE ARUNDEL MD			
> 3 CBD TO AIRPORT (NM):	09 S	6 REGION/ADO: AEA/DCA	7 SECT AERO CHT: WASHINGTON		
<u>RUNWAY DATA</u>					
> 30 RUNWAY IDENT:		04/22	10/22	Gross Weight data transition	
> 31 LENGTH:		6,000	10,500		
> 32 WIDTH:		150	200		
> 33 SURF TYPE-COND:		ASPH-F	ASPH-F	ASPH-F	ASPH-G
> 34 SURF TREATMENT:		GRVD	GRVD	GRVD	GRVD
35 GROSS WT:	SW	100.0	100.0	30.0	100.0
36 (IN THSDS)	DW	220.0	220.0	60.0	220.0
37	DTW	500.0	500.0		500.0
38	DDTW	728.0	790.0		790.0
> 39 PCN:		65 /F/A/W/T	110 /F/A/W/T	26 /F/A/W/T	100 /F/A/W/T

PCN data request now part of all airport inspections

- The Master Record is required to be updated periodically. PCN is now mandatory and Gross Weight data will possibly be phased out with time.



Federal Aviation Administration

FAA 150/5370-11B

USE OF NONDESTRUCTIVE DEVICES IN THE EVALUATION OF AIRPORT PAVEMENTS

This advisory circular (AC) focuses on nondestructive testing (NDT) equipment that measures pavement surface deflections after applying a static or dynamic load to the pavement.

Principal Changes.

Since the previous revision, the FAA has developed and implemented the pavement design program FAARFIELD. Chapter 8 - NDT-BASED EVALUATION AND DESIGN INPUTS is updated to reflect the requirements of FAARFIELD rather than the previous design program LEDFAA.



FAA AC 150/5370-10F STANDARD FOR SPECIFYING CONSTRUCTION OF AIRPORTS

Series 150 Advisory Circulars (ACs) for Airport Projects

FAA Home About FAA Jobs News A-Z Index I Am A ...

New & Revised ACs [View all New & Revised ACs >>](#)

Number	Title	Publication Date
150/5370-10F	Standards for Specifying Construction of Airports (posted 11/8/2011)	9/30/2011
150/5370-2F	Operational Safety on Airports During Construction (posted 10/19/2011) New/Revised Comments: Errata Sheet to correct Figure 2 -2 (October 14, 2011)	9/29/2011
150/5100-13B	Development of State Standards for Nonprimary Airports (posted 10/18/2011)	8/31/2011

Draft ACs

Number	Title	Publication Date
150/5200-2C	Draft AC 150/5300-2C, HE (06/19/2011)	
150/5300-19	Draft AC 150/5300-19, Airport Data and Information Program (posted 06/06/2011)	7/22/2011
150/5200-36A	Draft AC 150/5200-36A, Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curricula for Airport Personnel Involved in Controlling Wildlife Hazards on Airports (posted 05/18/2011)	7/13/2011

Related Links:
 • Airport Statutes & Regulations
 • Engineering Briefs
 • Forms



FAA AC 150/5370-10F

PRINCIPAL CHANGES – P-400's

P-401 & P-403-3.5: Job Mix Formula (JMF) Laboratory

Contractor's laboratory used to develop the JMF shall meet the requirements of ASTM D 3666.

Laboratory accreditation must be current and listed on the accrediting authority's website. All test methods required for developing the JMF must be listed on the lab accreditation.

A copy of the laboratory's current accreditation and accredited test methods shall be submitted to the Engineer prior to start of construction

P-401 & P-403-5.1: Acceptance Sampling and Testing Laboratory requirements - Same as above



FAA AC 150/5370-10F

PRINCIPAL CHANGES – P-501

P-501-3.4. Concrete Mix Design Laboratory

Contractor's laboratory used to develop the concrete mix design shall meet the requirements of ASTM C 1077.

Laboratory accreditation must be current and listed on the accrediting authority's website. All test methods required for developing the concrete mix design must be listed on the lab accreditation.

A copy of the laboratory's current accreditation and accredited test methods shall be submitted to the Engineer prior to start of construction

P-501-5.1. Acceptance Sampling and Testing Laboratory requirements – Same as above



FAA AC 150/5370-10F

PRINCIPAL CHANGES – P-501 (& P-610)

Updates information on testing protocol of aggregate for reactivity and use of cementitious materials related to reactivity requirements

(1) 501-2.1 and 610-2.1: Reactivity tests will be tested for expansion at 28-days (30-days from casting).

(2) 501-2.1: Deleted Engineers Note referring to Engineering Brief No. 70 (as indicated on previous slide)

(3) 501-2.3 and 610-2.6: Additional requirements added for use of Class F fly ash when mitigating alkali-silica reactivity and deleted use of Class C fly ash.



FAA AC 150/5370-10

PRINCIPAL CHANGES – Update Testing Protocol

5370-10F

Sep 2011

P-501-2.1 AGGREGATES a. Reactivity. ~~Aggregates shall be tested for deleterious reactivity with alkalis in the cement, which may cause excessive expansion of the concrete. Separate tests of coarse and fine aggregate shall be made in accordance with ASTM C 1260. If the expansion of coarse or fine aggregate test specimens, tested in accordance with ASTM C 1260, does not exceed 0.10 % at 28 days (30 days from casting), the coarse or fine aggregates shall be accepted.~~

~~If the expansion of any aggregate, coarse or fine, at 28 days is greater than 0.10%, tests of combined materials shall be made in accordance with ASTM C 1567 using the aggregates, cementitious materials, and/or specific reactivity reducing chemicals in the proportions proposed for the mixture design. If the expansion of the proposed combined materials test specimens, tested in accordance with ASTM C 1567, does not exceed 0.10 % at 28 days, the proposed combined materials will be accepted. If the expansion of the proposed combined materials test specimens is greater than 0.10% at 28 days, the aggregates will not be accepted unless adjustments to the combined materials mixture can reduce the expansion to less than 0.10 % at 28 days, or new aggregates shall be evaluated and tested.~~

0.10% at 28 Days



FAA AC 150/5370-10F

PRINCIPAL CHANGES – Use of Cementitious

501-2.3 CEMENTITIOUS MATERIALS

a. Flyash or Natural Pozzolan. Flyash shall meet the requirements of ASTM C 618, **Class F or N** with the exception of loss of ignition, where the maximum shall be less than 6 percent. [The following tests in Supplementary Optional Physical Requirements of Table 3 contained in ASTM C 618 shall apply: Select the appropriate tests when project specific conditions or exposures dictate (Increase of drying shrinkage of mortar bar); (Effectiveness in Contributing to Sulfate Resistance Procedure A) or (Effectiveness in Contributing to Sulfate Resistance Procedure B). Select either sulfate resistance test, but not both.] **Class F or N flyash for use in mitigating alkali-silica reactivity shall have a Calcium Oxide (CaO) content of less than 13 percent and a total equivalent alkali content less than 3 percent.** Flyash such as is produced in furnace operations using liming materials or soda ash (sodium carbonate) as an additive shall not be acceptable. The Contractor shall furnish the previous three most recent, consecutive ASTM C-618 reports for each source of flyash proposed in the mix design, and shall furnish each additional report as they become available during the project. The reports can be used for acceptance or the material may be tested independently by the Engineer.



FAA AC 150/5370-10F

PRINCIPAL CHANGES – Use of Cementitious

501-2.3 CEMENTITIOUS MATERIALS

a. Flyash or Natural Pozzolan.

Class C flyash may be proposed on a case-by-case basis where innocuous aggregates are used and the pavement is not subjected to airfield pavement de-icers. Any use of Class C flyash is subject to the approval of the engineer and FAA. A modification to standards will be required.

NOTE: “de-icers” means “ de-icers”, “deicers”, and “anti-icers”



FY13 – Updates & Changes 'Pavement' Advisory Circulars

5335-5B STANDARD METHOD FOR REPORTING AIRPORT
PAVEMENT STRENGTH (PCN)

5370-10 STANDARD AND SPECIFYING CONSTRUCTION OF
AIRPORTS

5370-14A HOT MIX ASPHALT PAVING HANDBOOK



AC 150/5335-5C, Changes from -5B

- Editorial Clean-up.
- Update/corrected spreadsheet application that facilitates determining the evaluation thickness and organizing the PCN results.
- Incorporate Spreadsheet into AC



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AC 150/5370-10G, Changes from -10F

EVERYTHING



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FY12/13 Work – Pavement ACs 5370-10G

Update, Modify, Add, Delete, Combine, etc

- All 'P' Items will be reviewed
- Also 'F' 'D' 'T' 'L' Items to be reviewed

Review and Consider

- Comments Received from Review of DRAFT 5370-10F
 - 189 of the 243 comments from Regions
- Comments Received via email, verbal*, etc
- Recent Past MOS's – similar issues in several Regions?
- Additional Comments Submitted *****



FY12/13 Work – Pavement ACs 5370-10G

All 'P' Items will be reviewed – such as in the 400's:

Add P-401(SP) and Modify P-401

Replaces the use of EB 59A

Eliminates the requirement of MOS

Incorporate Region Comments - Experiences

Incorporate Lab and Industry Experience

FAA Tech Center

AAPTP Reports

UFGS 32-12-15 Hot Mix Asphalt for Airfields

Asphalt Institute

~~Add Warm Mix Guidance in P-401 (?) EB?~~ Continue w/MOS



FY12/13 Work – Pavement ACs 5370-10G

All 'P' Items will be reviewed – such as in the 600's:

P-608 Emulsified Asphalt Seal Coats / Natural Asphalt Sealer Binders

P-609 ~~Seal Coats and~~ Bituminous Surface Treatments

P-626 Emulsified Asphalt Slurry Seal Surface Treatment

P-630 Refined Coal Tar Emulsion Without Additives, Slurry Seal Surface Treatment

P-631 Refined Coal Tar Emulsion With Additives, Slurry Seal Surface Treatment

P-632 Bituminous Pavement Rejuvenation

Including Engineering Briefs:

DRAFT EB7X Rejuvenation Product Qualification Procedure and Requirements-Draft

DRAFT EB 68 Four Component Coal-Tar Sealer Rejuvenator

EB 62 Polymer Composite Micro-Overlay for Fuel-Resistant Wearing Surfaces

EB 60 Semi-Flexible Wearing Course for Apron Pavement

EB 44 Coal-Tar Sealer/Rejuvenator

EB44B Revised Coal-Tar Sealer/Rejuvenator Specification

EB35A Thermoplastic Coal-Tar Emulsion Slurry Seal



Engineering Briefs (EB)

- Interim FAA guidance is provided in Engineering Briefs. EB's provide additional guidance on unusual conditions that AC's may not completely address.
- Generally issued without draft sent out for widespread review.
- Also placed on the Airports web site.



http://www.faa.gov/airports/engineering/engineering_briefs/

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Airport Engineering, Design, & Construction

Print Email | Updated: 10:44 am ET August 10, 2010

- Acquiring Land for Airports and Relocation Assistance
- Airport Lighting
- Airport Pavement Design and Construction
- Airports Surveying / GIS Program
 - Airports GIS Video Training Series
 - Guide to Airport Surveys (May 2009) (PDF)
- Modifications of Standards for A380s, B747-8s, & New Large Aircraft
- Obstruction Evaluation/Airport Airspace Analysis
- Open or Close an Airport or Runway
- Procurement and Contracting under the AIP
 - AC Checklist for AIP and PFC Projects (6/2010) (PDF)
 - Federal Provisions for Construction, Equipment, & Professional Services (AE) Contracts
 - Equipment Meeting Buy American Requirements (MS Excel)
- Foreign Object Debris (FOD) Detection Equipment Request for Qualifications (PDF) (posted 8/10/2010)
 - Percent Calculation Worksheet (MS Excel) (posted 8/10/2010)
- Wildlife Strike Database and Resources
- Standards
 - Airport Construction Standards
 - Airport Design and Engineering Standards

Do You Want To... ?

- View airport program statistics
- Search airport data
- Find an airport AC
- Read best practices for runway safety
- Learn about the Airport Improvement Program



FY11 & FY12 Engineering Briefs

- EB89 Taxiway Nomenclature Convention
- EB87 Heliport Perimeter Light for Visual Meteorological Conditions
- EB84 Remote Maintenance and Monitoring of ALCMS and L-821 Computerized Control Panels



FY10 Engineering Briefs

- EB83 In Pavement Light Fixture Bolts
- EB81 Use of Guidance for Runway Centerline to Parallel Taxiway/Taxilane Centerline Separation for Boeing 747-8 (rev. 3/17/2010 to correct wingspan of B747-8 in section B)
- EB80 Use of Interim Taxiway Edge Safety Margin Clearance for Airplane Design Group VI



'Pavement' Engineering Briefs

- *DRAFT EB7X Rejuvenation Product Qualification Procedure and Requirements - Draft (Comment period was extended to 5/1/2007)*
- *DRAFT EB 68 Four Component Coal-Tar Sealer Rejuvenator (Comment period was extended to October 14, 2005)*
- EB 66 Rubblized Portland Cement Concrete Base Course February 13, 2004
- EB 62 Polymer Composite Micro-Overlay for Fuel-Resistant Wearing Surfaces December 20, 2002
- EB 60 Semi-Flexible Wearing Course for Apron Pavement January 16, 2001



'Pavement' Engineering Briefs

- EB 59A Engineering Brief No. 59A, Item P-401 Plant Mix Bituminous Pavements (Superpave). This Brief Provides Guidance on Using Asphaltic Mixtures Designed Using Superpave Technique (Supercedes EB59 3/1/00, 12/01 guidance) May 12, 2006
- EB 56 Development of Revised Acceptance Criteria for Item P-401 and Item P-501. January 27, 1999
- EB 57 Extended Q-Value Table for Estimating Percent of Lot Within Limits (Pwl) Q-Value and PWL Table May 19, 1999



'Pavement' Engineering Briefs

- EB 44 Coal-Tar Sealer/Rejuvenator November 2, 1989
(Updated 5/29/2008)

EB44B Revised Coal-Tar Sealer/Rejuvenator
Specification (Supersedes specification
attached to November 2, 1989, brief) May 21, 2008

- EB 35A Thermoplastic Coal-Tar Emulsion Slurry Seal:
Amended Interim Specification
September 27, 1994



Availability of Airport-Related Research and Development Products

Advisory Circular 150/5000-15A (Update to -15B; FY13)

•**PURPOSE.** This advisory circular (AC) explains how to obtain the latest airport-related research and development (R&D) products funded by the Federal Aviation Administration's (FAA's) Airports Organization.

•**SCOPE.** This AC describes R&D products from:

- The FAA's Airport Technology Research and Development Branch,
- The Airport Cooperative Research Program (ACRP),
- The Innovative Pavement Research Foundation (IPRF), and
- The Airfield Asphalt Pavement Technology Program (AAPT).



Airfield Concrete Pavement Technology Program (ACPTP) (IPRF)

In July 2001 the Federal Aviation Administration (FAA) and the Innovative Pavement Research Foundation (IPRF) entered into a Cooperative Agreement to execute the Airfield Concrete Pavement Technology Program (ACPTP).

The ACPTP (now referred to as the **IPRF program**) was completed in September 2011; no additional RFPs are planned; all reports will continue to be available on the IPRF website.



Airfield Asphalt Pavement Technology (AAPTTP)

The AAPTTP was established in 2004 through a cooperative agreement between the Federal Aviation Administration and Auburn University. Although closely related, the AAPTTP was set up separately and operated independently from the National Center for Asphalt Technology (NCAT).

The AAPTTP program was completed in May 2011; no additional RFPs are planned; all reports will continue to be available on the AAPTTP website.



AAPTP Webinar Series

HMA Airport Construction Best Practices

November 22, 2010

Life-Cycle Cost Analysis of Airfield Asphalt Pavements

December 13, 2010

PG Binder Grade Selection & Implementation of Superpave Mix Design for Airfield Pavements

February 22, 2011

Improved Performance of Longitudinal Joints on Asphalt Airfields

April 11, 2011

Techniques for Prevention and remediation of Non Load-Related Distresses on HMA Airport Pavements – Phase I

May 2, 2011



Priorities and Direction FY13 and Beyond

**ONE Standard Guide Specification for
Airfield Pavement**

**Design Life for Airfield Pavement
20 years to 40 years**

~ and ~

Pavement Preservation



ONE Standard Guide Specification for Airfield Pavement

Changing Existing Advisory Circular Format to the Construction Specifications Institute (CSI) Format and following / adopting Unified Facilities Guide Specifications (UFGS) format.

Include all Parts of AC 150/5370-10

Support through discussions with FAA personal, Airport Consultants Council (ACC), ASCE T&DI Airfield Pavement Committee, and representatives from the Concrete and Asphalt Associations

Ongoing efforts of Tri-Service / FAA Airfield Pavements Engineers

Targets: Draft ~ end of FY14

Industry Review and comment ~ mid FY15

Publish ~ December 2015 ? ? ?



Design Life for Airfield Pavement 20 years to 40 years



Design Life for Airfield Pavement 20 years to 40 years

→ AIP Funding Regulations and Law

→ Design parameters and FAARFIELD

Past report: PCC & HMA similar and > 20 year life (SCI)

~ Perform similar type evaluation for 40 yr life

→ Serviceability - Maintenance and Management

Past report: PCC & HMA not similar indicating pavement service life limiting (PCI) – HMA attacked by sun and rain

~ Performance Modeling & Analysis

- Build on previous work completed through ONR

~ Implement Preservation

- Review Funding Issues and AIP Regulations

- New and Existing HMA Pavement Surface

→ Etc.



Airport Pavement Preservation

Preservation of the Federal Aviation Administration's and Department of Defense Tri-Service's extensive asphalt pavement assets is critical to their abilities to perform their respective missions.

Preservation of these assets is significantly more cost effective, and efficiency promoting, than costly corrective maintenance or reconstruction.

The cost of corrective maintenance to airfield asphalt pavements that could be reduced with inexpensive early preventive maintenance is significant.

Even a minimal 20% useful life extension of airfield asphalt assets could significantly increase efficiency and save the Agencies hundreds of millions of dollars a year in additional maintenance and replacement.

Preservation extends useful pavement life, reduces maintenance costs to airports, and potentially saving billions of dollars in AIP funding



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Relevant Advisory Circulars & Standards 20 to 40 & Pavement Preservation

150/5370-10F Standards for Specifying Construction of Airports

150/5380-6B Guidelines and Procedures for Maintenance of
Airport Pavements

150/5320-6E Airport Pavement Design and Evaluation

150/5370-11B Use of Nondestructive Testing Devices in the
Evaluation of Airport Pavements

150/5380-7A Airport Pavement Management System

150/5320-12C Measurement, Construction, and Maintenance of
Skid Resistant Airport Pavement Surfaces

ASTM D5340-11 Standard Test Method for Airport Pavement
Condition Index Surveys

Plus Others



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Thank You

Questions / Discussion

Airport Engineering Division, AAS-100

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