

Session 1: Airport Pavement Needs Roundtable FAA Perspective

VII ALACPA Airport Pavements
Seminar & V FAA Airport
Pavements Workshop
December 6-9, 2010
Miami, FL USA

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Presentation Objectives

- Provide information on the Advisory Circular (AC) and Engineering Brief (EB) processes.
- Summarize the work in the Airport Engineering Division.
- Guidance available on the Airports internet web site.



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Airport Engineering Division AAS-100

- Division Manager
- Assistant Manager (primarily for Airports GIS)
- Administrative Assistant
- 7 Civil Engineers (2 pavements)
- 3 Electrical/Electronics Engineers
- ACRP Research Engineer (Mechanical)
- Airport Safety Data Program (Program Manager)
- Airports GIS (Computer Scientist)
- Technical Support Contractor (ISI)
- Technical Editor (shared)



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FAA Guidance

FAA guidance is part of the authorizing legislation for airport development using Federal funds

- **Advisory Circulars, the 150's series**
FAA airport design, construction, and maintenance guidance
- **Engineering Briefs**
Interim FAA airports engineering guidance
- **<http://www.faa.gov/arp/>**
FAA airport guidance is available from FAA web sites



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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.
 - 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.**

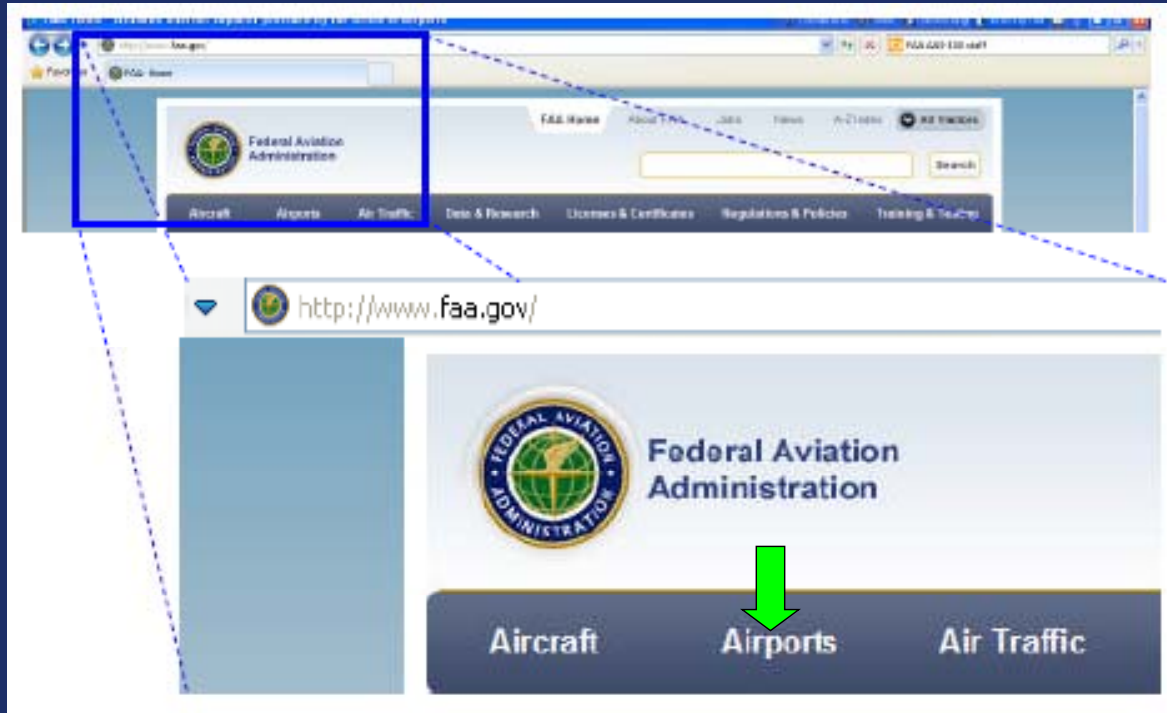


What Delays a Change

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



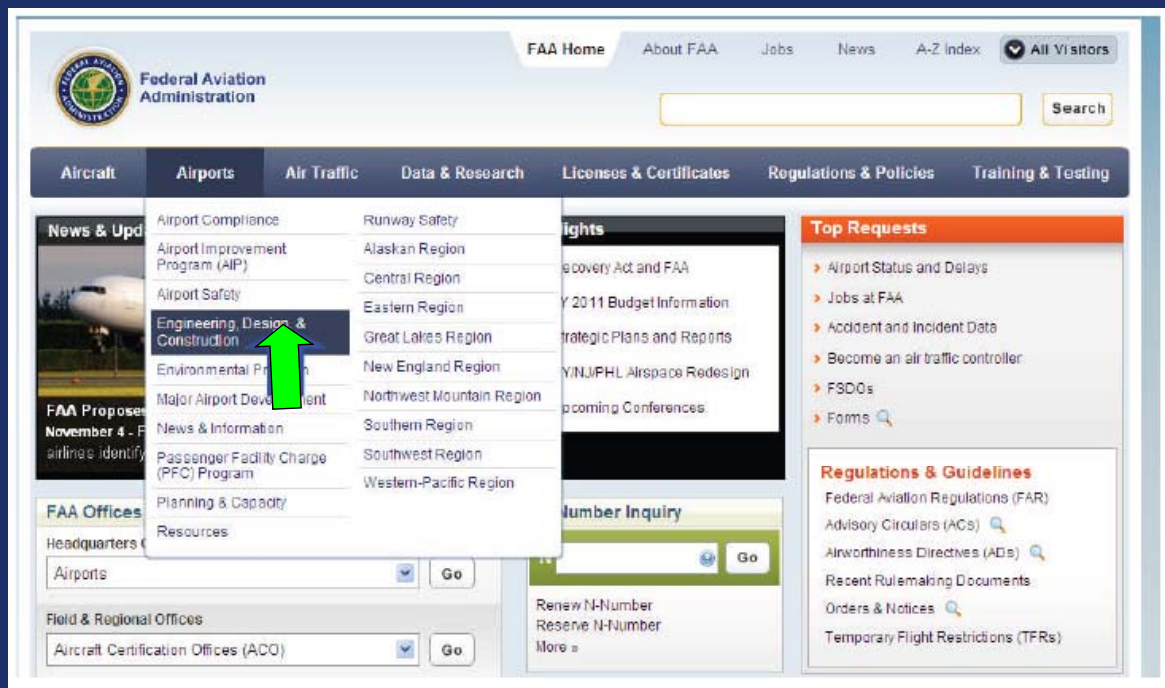
Airports Web Site



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



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<ul style="list-style-type: none"> Environmental Program Major Airport Development News & Information Passenger Facility Charge (PFC) Program Planning & Capacity Resources Runway Safety 	Advisory Circulars (ACs) <ul style="list-style-type: none"> Series 150 AC Library <ul style="list-style-type: none"> Airport GIS ACs Design, Construction, Maintenance ACs Draft ACs New and Revised ACs Other FAA ACs DOT Special Collections - Historical ACs (1957-2000) 	Publications & Forms <ul style="list-style-type: none"> Air Traffic Publications <ul style="list-style-type: none"> Aeronautical Information Manual (AIM) FAA Technical Center Library Federal Register Notices Forms Orders Reports
	Contact Us	
	Research & Development	
	Advisory Circulars (ACs)	

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)

Advisory Circulars - All 150 Series ACs

Publications & Forms

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

Aid to Indicate Temporary Runway Closure (1987) (PDF, 1.32 MB)

TERFs Instruction Letters (TILS)


Related Information on Non-FAA Sites



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Advisory Circular Web Site



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Aircraft | **Airports** | Air Traffic | Data & Research | Licenses & Certificates | Regulations & Policies | Training & Testing

FAA Home » Airports » Resources » Advisory Circulars

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: All Status: Current

View All

- Current
- Cancelled
- Drafts
- Other FAA ACs

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

Number	Title	Publication Date
150/5340-30E	Draft AC 150/5340-30E, Design and Installation Details for Airport Visual Aids (posted 10/12/2010)	0/20/2010
150/5000-10	Announcement of Availability of the Guide for Private Flyers - U.S. International Airports (posted 10/1/2010)	9/29/2010
150/5200-25A	Submitting the Airport Master Record in Order to Activate a New Airport (posted 9/30/2010)	9/29/2010

Top Requests

- AC 150/5300-13, Airport Design
- AC 150/5370-10F, Standards for Specifying Construction of Airports
- AC 150/5340-1K, Standards for Airport Markings
- AC 150/5320-5E, Airport Pavement Design and Evaluation
- AC 150/5340-30E, Design and Installation Details for Airport Visual Aids
- AC 150/5345-53C, Airport Lighting Certification Program and Addendum

Draft ACs [View all Draft ACs](#)

Number	Title	Deadline for Comments
150/5340-30E	Draft AC 150/5340-30E, Design and Installation Details for Airport Visual Aids (posted 07/03/2010)	8/30/2010
150/5220-17B	Draft AC 150/5220-17B, Aircraft Rescue and Fire Fighting (ARFF) Training Facilities (posted 06/16/2010)	8/25/2010
150/5220-25	Draft AC 150/5220-25, Airport Avian Radar Systems (posted 08/03/2010)	8/20/2010

Related Resources

- Airports Orders
- Airport Statutes & Regulations
- Engineering Briefs
- Forms

[Browse by Topic](#)

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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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2010 New and Revised FAA Airports Series 150 Advisory Circulars (ACs)

[150/5340-30E](#)

[150/5000-16](#)

Design and Installation Details for Airport Visual Aids
Announcement of Availability of the Guide for Private Flyers – U.S.
International Airports

[150/5200-35A](#)

[150/5210-23](#)

Submitting the Airport Master Record in Order to Activate a New Airport
ARFF Vehicle and High Reach Extendable Turret (HRET) Operation, Training
and Qualifications

[150/5210-24](#)

[150/5220-17B](#)

[150/5345-10G](#)

[150/5345-3G](#)

[150/5210-13C](#)

[150/5345-12F](#)

[150/5345-44J](#)

[150/5340-1K](#)

Airport Foreign Object Debris (FOD) Management

Aircraft Rescue and Fire Fighting (ARFF) Training Facilities

Specification for Constant Current Regulators and Regulator Monitors

Specification for L-821, Panels for the Control of Airport Lighting

Airport Water Rescue Plans and Equipment

Specification for Airport and Heliport Beacons

Specification for Runway and Taxiway Signs

Standards for Airport Markings New/Revised Comments:

Errata Sheet for AC 150/5340-1K (September 23, 2010)

[150/5345-51B](#)

[150/5340-18F](#)

Specification for Discharge-Type Flashing Light Equipment

Standards for Airport Sign Systems New/Revised Comments Errata Sheet for
AC 150/5340-18F



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FY11 Complete, Continue, Start Work

5100-14 Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects
5200-18 Airport Safety Self-Inspection
5200-32 Reporting Wildlife Aircraft Strikes
5210-06 Aircraft Fire and Rescue Facilities and Extinguishing Agents
5210-20 Ground Vehicle Operations on Airports
5210-22 Airport Certification Manual (ACM)
5220-04 Water Supply Systems for Aircraft Fire and Rescue Protection
5220-17 Design Standards for an Aircraft Rescue and Fire Fighting Training Facility
5220-20 Airport Snow and Ice Control Equipment
5220-21 Guide Specification for Devices Used to Board Airline Passengers with Mobility Impairments
5220-22 Engineered Materials Arresting Systems (EMAS) for Aircraft Overruns
5220-25 Avian Radar
5230-04 Aircraft Fuel Storage, Handling, and Dispensing on Airports
5300-13 Airport Design
5300-17 IMAGERY
5300-18 SURVEYS
5300-19 AIRPORT DATA
5340-30 DESIGN AND INSTALLATION DETAILS
5345-28 Precision Approach Path Indicator (PAPI) Systems
5345-47 Isolation Transformers for Airport Lighting Systems
5345-53 Airport Lighting Equipment Certification Program
5360-12 Airport Signing and Graphics
5360-14 Access to Airports By Individuals With Disabilities
5370-02 Operational Safety on Airports During Construction
5370-15 AIRSIDE APPLICATIONS FOR ARTIFICIAL TURF
5390-2B HELIPORT DESIGN
5395-01 Seaplane Bases



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FY11 Continue – ‘Complete’

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

**5370-10E STANDARD FOR SPECIFYING
CONSTRUCTION OF AIRPORTS**

**5320-12 Measurement, Construction, and
Maintenance of Skid Resistant Airport Pavement
Surfaces**

**5370-11A Use of Nondestructive Testing Devices
in the Evaluation of Airport Pavements**



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FY11-12 Work – Pavement ACs

5370-10E STANDARD AND SPECIFYING CONSTRUCTION OF AIRPORTS

5320-17 Airfield Pavement Surface Evaluation
and Rating (PASER) Manuals

5370-14 Hot Mix Asphalt Paving Handbook

5380-08A Handbook for Identification of
Alkali-Silica Reactivity in Airfield Pavements

5380-7 PAVEMENT MANAGEMENT SYSTEMS



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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.



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FAA Home » Airports » Engineering, Design, & Construction

Airport Compliance
Airport Improvement Program (AIP)
Airport Safety
Engineering, Design, & Construction
→ Aircraft Characteristic Database
→ Airport Lighting
→ Construction Standards
→ Design Software
→ Design Standards
→ **Engineering Briefs**
→ Modifications of Standards for New Large Aircraft
→ Obstruction Evaluation/Airport Airspace Analysis
→ Opening or Closing an Airport
→ Pavement Design

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 (6/20/10) (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



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 (posted 3/15/2010)



Recent Engineering Briefs

- EB70 Accelerated Alkali-Silica Reactivity in Portland Cement Concrete Pavements Exposed to Runway Deicing Chemicals December 13, 2005
- DRAFT EB 68 Four Component Coal-Tar Sealer Rejuvenator (Not Suitable for Project Use at this Time). Issued For Comment: August 10, 2005
- EB 66 Rubblized Portland Cement Concrete Base Course February 13, 2004
- 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 Techniques (Supercedes EB59 3/1/00, 12/01 guidance) May 12, 2006



FY11 Work – Pavement EBs

- EB70 Accelerated Alkali-Silica Reactivity in Portland Cement Concrete Pavements Exposed to Runway Deicing Chemicals December 13, 2005
- 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 Techniques (Supercedes EB59 3/1/00, 12/01 guidance) May 12, 2006
- DRAFT EB7X Rejuvenation Product Qualification Procedure and Requirements-Draft (Comment period extended to 5/1/2007)
- EBXX Gilsonite Modified Asphalt Emulsion Sealer Binder Seal Coat Guidelines for Modification of Specifications
- EBXX Brief to Provide Guidance on Using Warm Mix Asphalt



FY11 – FY14 Work – Pavement + EBs

- With materials and processes in the pavement construction industry having significantly changed in the past 30 years and coupled with computer technology and advances in information technology transfer, many EBs are out-of-date or simply obsolete. Therefore, to eliminate or reduce confusion from misleading information easily obtained from internet search engines from these EBs, all EBs are to be reviewed for verification of reliable information and cross-referenced with applicable ACs and either update if needed, cancel and remove do to being obsolete, or cancel and archive to internal archives (non-searchable through internet search engines).

Perform this review in increments of decades per year. In other words a review and recommend action on all EBs dated in the 1970's to be completed FY11, 1980's in FY12, 1990's in FY13, and 2000's in FY14

EB01-EB21 (FY11)

EB22-EB-44 (FY12)

EB45-EB58 (FY13)

EB59-EB79 (FY14)



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Thank You

Questions / Discussion

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