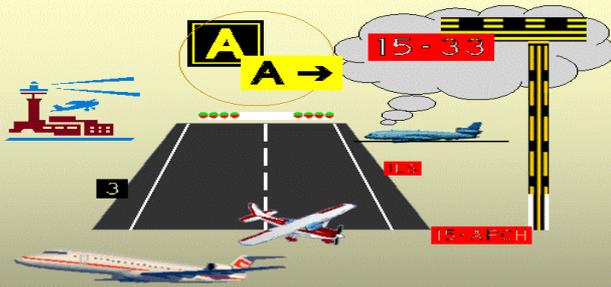




AIRPORT CERTIFICATION INFORMATION BULLETIN



Eastern Region
Federal Aviation Administration
Airports Division, AEA-620
Safety & Standards Branch
1 Aviation Plaza,
Jamaica NY 11434

AEA-09-11
8-9-11

Bulletin: 2011-09
Subject: Summary of Changes to FAA Marking and Sign Standards
Issue Date: August 9, 2011
Revised Date: September 28, 2011

Contact: Dennis O'Donnell, Airport Certification Safety Inspector
Phone: 718-553-3343 or via email at dennis.o'donnell@faa.gov

Background: The FAA updated AC 150/5340-1K, Chg 1, *Standards for Airport Markings* on September 3, 2010 and AC 150/5340-18F, *Standards for Airport Sign Systems* on August 16, 2010. Both AC updates contain significant changes to marking and sign system standards that will require updates to Part 139 airport Sign and Marking Plans. Airport personnel involved in airfield painting and/or conducting airfield self-inspections need to be aware of these changes to marking and sign standards.

Action Required: Please distribute to all Airport Operations, Maintenance, and Engineering staff. This bulletin provides a *brief summary* of the most significant changes in the revised AC's. Airport maintenance and operations personnel need to be aware of the AC updates in their entirety when repainting markings and/or adding signs during the next year. For the most part, the compliance date to implement the changes to FAA marking and sign standards is two years from the initial AC revised publication date. Airports should contact their respective Airport District Offices directly for assistance with any eligibility questions.

Please complete and email the attached form to dennis.O'donnell@faa.gov and provide the Marking and Signage Plan **Primary** Point of Contact (POC) for your airport. The painting of any Surface Painted Holding Position Signs (SPHPS) or sign additions (size 1 retro reflective holding position sign at vehicle stop signs) must first be approved on the airport's Marking and Signage plan prior to bid, preferably at the 90% design phase.

Summary of Some of the Changes in FAA Signage & Marking Standards in Advisory Circulars 150/5340-1K, Standards for Airport Markings and 150/5340-18F, Standards for Airport Sign Systems

Changes to AC 150/5340-1K

Non-Movement Area Boundary Marking – Par 5.4(d) (3) of the new marking AC addresses a change in marking standards concerning the interruption of taxiway centerlines for the non-movement area boundary marking. The gap in the taxiway centerline on both sides of the non-movement area boundary marking is 6-12 inches. The 3 foot gap on the movement side of the marking has been eliminated. This new standard is to be implemented the next time the taxiway centerline marking is repainted, but no longer than 2 years from the date of the AC.



Runway Holding Position Markings – Par 3.3d(4) of the new marking AC addresses a change in marking standards concerning the interruption of taxiway edge markings for Pattern A runway holding position markings. The taxiway edge marking abuts the black outline for runway holding position markings. This new standard is to be implemented the next time the runway holding position markings are repainted, but no longer than 2 years from the date of the AC.



Interrupting Taxiway Edge Markings for Other Hold Markings - Par 3.4b (4) states that the Pattern B marking for ILS applications must extend across the entire width of the taxiway, therefore the taxiway edge markings are to be interrupted. The same standard of interrupting the taxiway edge marking for Pattern C and non-movement area boundary markings will also apply.



Surface Painted Holding Position Signs (SPHPS) –Par 4.5(b)(4)(ii), and Figure C-6 of the new marking AC addresses a change in marking standards concerning SPHPS on 35 foot wide taxiways. The new standard for 35 foot wide taxiways is to locate the SPHPS centered on the taxiway over the enhanced taxiway centerline with 6 foot tall inscriptions. This new standard is to be implemented within 2 years of the date of the current marking Advisory Circular.



Surface Painted Holding Position Signs (SPHPS) – There is a change in the new marking AC concerning the number of required SPHPS at runway holding positions where the design airplane for the runway is unable to line up perpendicular to the runway holding position marking. Par 4.5(b)(4)(i) requires two SPHPS, one each side of the taxiway centerline marking, where the design aircraft fuselage cannot line up perpendicular to the runway holding position marking, regardless of the width of the taxiway. Examples of this situation include taxiway centerline markings that curve towards the runway holding position marking or intersect the runway holding position marking at an angle other than 90 degrees. This new standard is to be implemented within 2 years of the date of the current marking Advisory Circular.

SPHPS required on both sides of taxiway centerline by 9/30/2012 as per above change.



Surface Painted Holding Position Signs (SPHPS) – The previous marking AC permitted the use of 9 foot inscriptions at all runway holding positions for a runway, if some of the taxiways were not wide enough for 12 foot tall inscriptions to fit. This standard was to avoid the need for multiple stencils. The new marking AC (Figure C-5) allows reducing the size of the inscriptions only where necessary and requires all other taxiway entrances to the same runway to maintain the standard 12 foot inscription dimension. Airport operators are expected to implement this change during the next regularly scheduled repainting of SPHPS, but no later than 9/3/2012.



Note: If there are more than one SPHPS at an intersection and one SPHPS can only be a maximum of 9 feet then all of the SPHPS at that intersection must be 9 feet.

Please be aware of the following changes. Reference tables are included below.

Marking Change in AC 150/5340-1K , Chg 1

Table 2-1. Minimum Required Runway Surface Marking Schemes for Paved Runways

Runway Surface Marking Scheme	Threshold Approach Category		
	Visual Approach	Non-precision Approach (Approaches with vertical guidance not lower than ¼ -statute mile visibility)	Precision Approach (Approaches with vertical guidance lower than ¼ -statute mile visibility)
Landing Designator (par. 2.3)	X	X	X
Centerline (par. 2.4)	X	X	X
Threshold (par. 2.5)	Note 1	X	X
Aiming Point (par. 2.6)	Note 2	Note 3	X
Touchdown Zone (par. 2.7)			X
Side Stripes (par. 2.8)	Note 4	Note 4	X

Note 1: Required on runways serving approach categories C and D airplanes and for runways used, or intended to be used, by international commercial air transport.

Note 2: Required on 4,200-foot (1,280 m) or longer runways serving approach categories C and D airplanes.

Note 3: Required on 4,200-foot (1,280 m) or longer instrumented runways.

Table 2-1 has been changed to require Threshold Markings on visual runways serving approach category C and D airplanes and runways used by international commercial air transport aircraft.

Marking Change in AC 150/5340-1K , Chg 1

Table 2-1. Minimum Required Runway Surface Marking Schemes for Paved Runways

Runway Surface Marking Scheme	Threshold Approach Category		
	Visual Approach	Non-precision Approach (Approaches with vertical guidance not lower than ¼ -statute mile visibility)	Precision Approach (Approaches with vertical guidance lower than ¼ -statute mile visibility)
Landing Designator (par. 2.3)	X	X	X
Centerline (par. 2.4)	X	X	X
Threshold (par. 2.5)	Note 1	X	X
Aiming Point (par. 2.6)	Note 2	Note 3	X
Touchdown Zone (par. 2.7)			X
Side Stripes (par. 2.8)	Note 4	Note 4	X

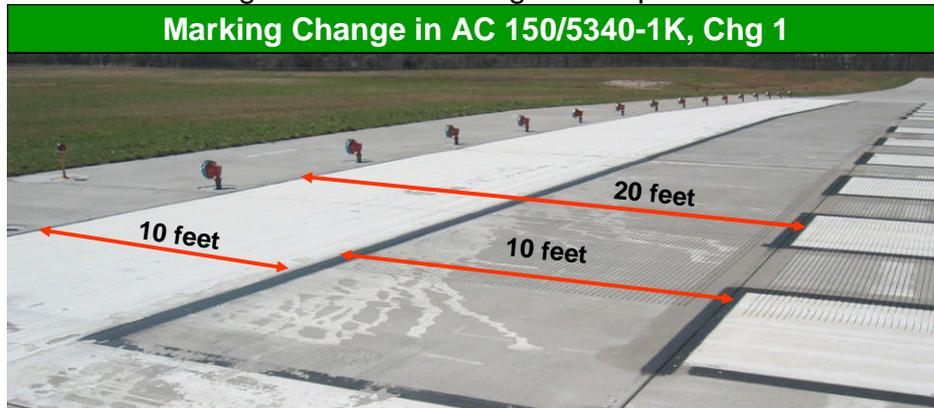
Note 1: Required on runways serving approach categories C and D airplanes and for runways used, or intended to be used, by international commercial air transport.

Note 2: Required on 4,200-foot (1,280 m) or longer runways serving approach categories C and D airplanes.

Note 3: Required on 4,200-foot (1,280 m) or longer instrumented runways.

Table 2-1 has been changed for when the Aiming Point Marking is required on Visual and NPI runways. Previously, it was required for runways 4,000 feet or longer used by jet aircraft. The new standard is for runways 4,200 feet or longer serving category C or D airplanes and instrumented runways.

Note the following dimensional change in the picture below:



AC 150/5340-1K, Chg 1, Par 2.5b, states, "The runway threshold marking starts 20 feet from the actual start point of the runway threshold as shown in figures 1 and 2. This value remains the same even though a 10-foot white threshold bar is introduced, such as for displaced thresholds or the addition of a blast pad or stopway as shown in figure 8. Previously, when a displaced threshold was painted or a blast pad or stopway added, the 20-foot dimension was increased to 30 feet to accommodate the requirement for painting the runway threshold bar. When a runway is completely remarked, the newly painted displaced threshold and threshold bar markings are 10 feet apart as shown in figure 6." 11

REQUIREMENTS AND RECOMMENDATIONS FOR ENHANCED CONSPICUITY OF SURFACE MARKINGS.

Surface markings that cannot be seen by pilots and other individuals operating on paved airfield surfaces are useless. Two proven techniques that help airport operators enhance the conspicuity of surface markings are (1) outlining surface markings with black borders on light-colored pavements and (2) placing glass beads in paint. However, glass beads are not to be used in black paint. Table 1-1 serves as a general guide for determining when existing asphalt concrete surfaces or asphalt treated surfaces may be classified as a light-colored pavement, i.e., when to outline a required surface marking with a black border.

Table 1-1. General Guidelines for Determining Light-Colored Pavements Painting a Black Border			
Pavement Surface Type	Age of Pavement Surface 1		
	New	Up to 2 years old	Over 2 years old
Portland Cement Concrete Surfaces	Yes	Yes	Yes
Asphalt Concrete Surfaces	No	No	Yes
Asphalt Treated Surfaces	No	No	Yes

Note 1: This table serves only as a general guide since an existing asphalt pavement at one airport location may not experience the same rate of surface color deterioration as at another airport location.

Dual Holding Position Marking

AC 150/5340-1K, para 4.3 (d) (6)

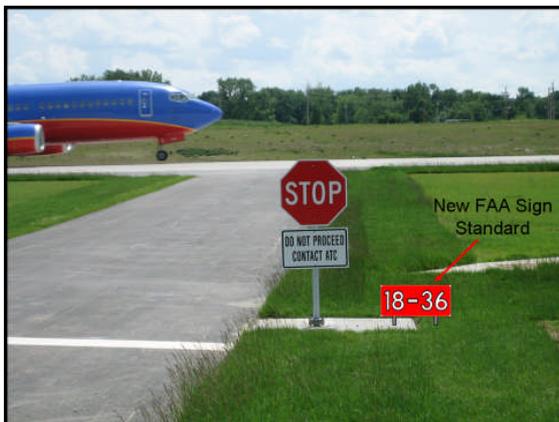
The following applies to airports with dual holding position markings:

If an ILS/MLS or a POFZ (Pattern B) holding position marking is within 150 feet (45.7 m) of a runway holding position marking (Pattern A), the enhanced taxiway centerline remains within the confines of the two holding position markings, i.e., the enhancement does not proceed beyond the ILS/MLS or the POFZ holding position marking. Under this situation, the enhanced taxiway centerline terminates 3 feet (0.9 m) before the ILS/MLS and the POFZ holding position markings.

CHANGES TO AC 150/5340-18F

The following change only applies to airports with more than one (1) runway.

Runway Holding Position Signs on Service Roads – The FAA has issued a new sign Advisory Circular 150/5340-18F, *Standards for Airport Sign Systems*, dated 8/16/2010. Par 11 and Figure 14 addresses a change in sign standards for signs on service roads to prevent vehicular runway incursions. FAA sign standards now include installation of a Size 1, Style 4 (unlighted retro reflective) runway holding position sign on all service roads that enter a runway to increase vehicle driver situational awareness. The new sign standards also include a Size 1, Style 4 ILS holding position sign to be installed where a service road enters an ILS critical area/POFZ. Installation of these new signs can be included in the ACIP for AIP funding.



Please Note: There are errors in AC 150/5340-18F, Figure 14.

1. The holding position sign panel legend does not have a white border as shown.
2. The outside edges of the white numerals are not outlined.
3. The holding position sign is not shown outboard of the stop sign.

VOR Receiver Checkpoint Signs

AC 150/5340-18F, para 12.a.

Airports with this type sign shown in **Figure #21** (see below) will have to change the sign legend lettering to conform to the sizing requirements listed. The station identification on the first line and the course numerals on the second line are to be at least 7" high. All other letters and numerals are to be at least 3" high.

