

# Office of Airport Safety and Standards Update

To: IESALC

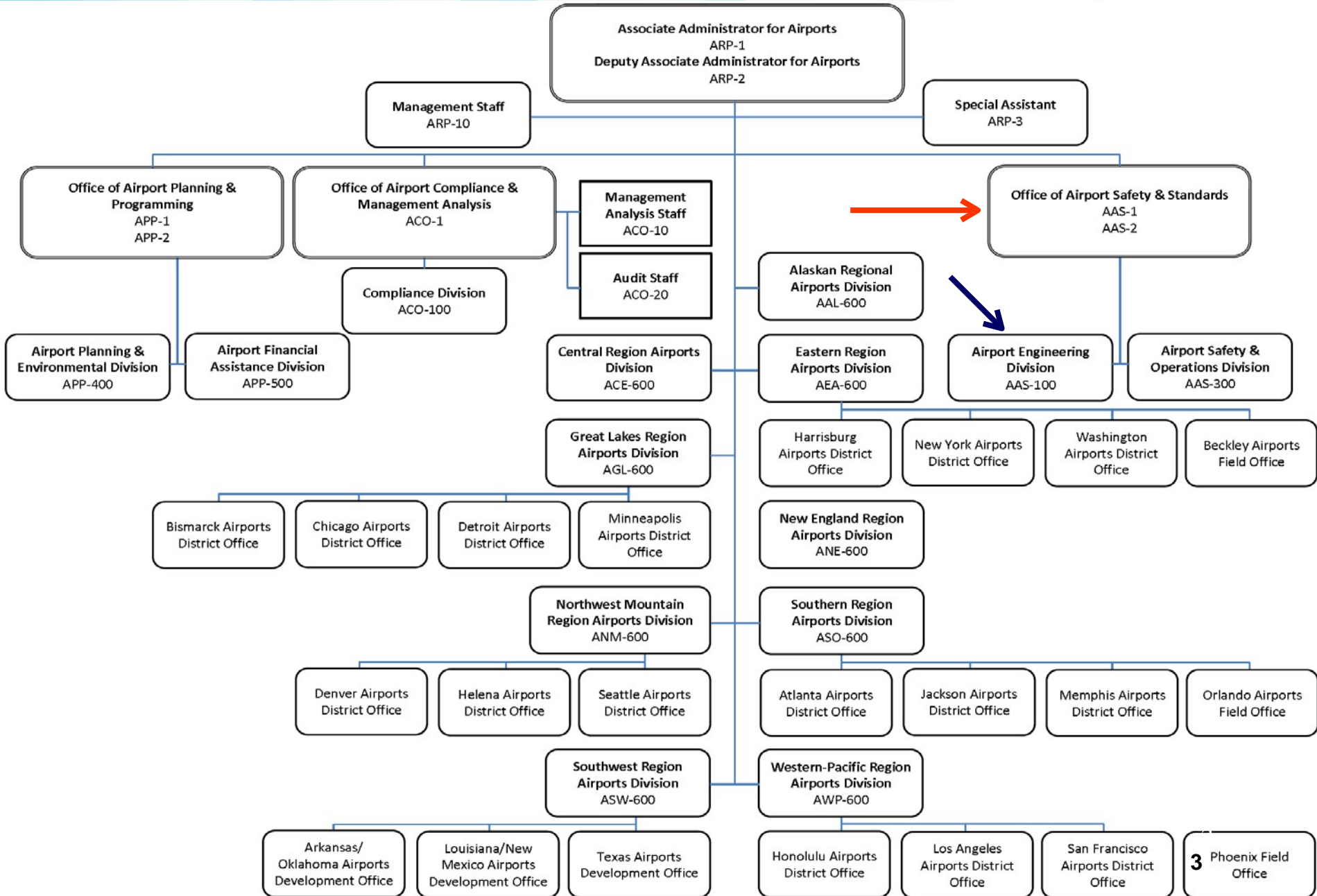
April 14, 2021

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Office of Airports

# FAA OFFICE OF THE ASSOCIATE ADMINISTRATOR FOR AIRPORTS



# Airport Engineering Division

- **Maintain over 80 of the airport series (150/5xxx) advisory circulars**
  - Standards for airport design, safety, construction, equipment, airfield lighting, signage and marking, and airfield pavements that are required for projects using AIP funds
  - Global leadership in international standards through ICAO
  - Maintain engineering briefs for additional guidance for airport projects.
  - Approves requests for modification of design or construction standards for individual projects.

# AC 150/5345-43J, Specification for Obstruction Lighting Equipment



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- *Published March 13<sup>th</sup>, 2019*
- *The effective date is extended by six months to September 11th, 2020*
- Adds infrared specifications for Aviation Obstruction Light Compatibility with Night Vision Goggles (NVGs) per Engineering Brief 98 to allow infrared emitters to be included in LED obstruction lighting fixtures.
- The specifications for the IR emitters support the operational requirement for LED-lit obstruction lights to be visible to operators in AC 7460-1 “Obstruction Marking and Lighting”.
- L-810 vertical beam spread should be defined by the minimum intensity of 32.5 cd over the 10 degrees and not only at the peak or the center of beam.

## Optional Monitoring:

1. If the IR emitter fails, the visible light is de-energized, and an alarm signal must be generated to provide an indication of the failure, (coupled).

OR

2. If the IR emitter fails, the visible light remains energized. The IR emitter is independently monitored in accordance with the monitoring requirements for FLASH/FAIL status of L-864, L-810 and L-885 visible light units. An alarm signal must be generated to provide an indication of the failure, (de-coupled).

# Infrared Specifications for red LED Obstruction Lights

| IR Wavelength (nominal) | Applicability           | IR Vertical Beam Width | IR Radiant Intensity |
|-------------------------|-------------------------|------------------------|----------------------|
| 800-900 nm              | L-810 (L)               | $\geq 10^{\circ 1}$    | Minimum: 4 mW/sr     |
|                         | L-864 (L) and L-885 (L) | $\geq 3^{\circ}$       | Minimum: 246 mW/sr   |

# AC 150/5390-2D Heliport Design



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# Summary of Changes to Heliports AC

1. Separate chapters on General Aviation, Transport and Hospital Heliports are now consolidated into one chapter
2. Eliminate redundant information
3. Add separate chapters for Taxiways / Heliport Marking and Lighting
4. Incorporate Engineering Brief #87, Heliport Perimeter Light for Visual Meteorological Conditions, into this AC to address specific heliport lighting requirements.
5. Improve figures
6. Include Hyperlinks

# Approximate Timeline for Completion of Draft AC

1. Industry Review period (*January-April 2021*)
2. Adjudication of industry comments (*May 2021*)
3. Complete final draft AC (*June 2021*)
4. Legal review (*June-July 2021*)
5. Adjudication of Legal Review comments (*August 2021*)
6. Publish final AC (*September 2021*)

# FAA AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM (ALECP)

- Established January 1990.
- Under the ALECP, the FAA has established a list of accepted certification bodies (3rd party certifiers)
- Manufacturer submits certification request to the 3rd party certifiers; they in turn evaluate and certify airport lighting equipment against our AC's.
- Certificate is then issued and the product is listed and maintained in AC 150/5345-53D Addendum. This list is provided to assist airport sponsors to determine that equipment has met the applicable FAA specifications.
- *Elite Electronic Engineering has been accepted as a FAA approved third party certification body under the ALECP.*

# Low Current Airfield Lighting Architecture (LCALA)

- Draft performance requirements have been developed for this architecture
- The LCALA supports three modes of operation
  - Frequency Shift Keying, or FSK
  - Amplitude Shift Keying or ASK
  - Legacy Mode
- Draft Engineering Brief (EB) will be developed over the next 12 months based on the performance requirements

# Recently Published Advisory Circulars

- AC 150/5345-28, Precision Approach Path Indicator (PAPI) Systems
- AC 150/5345-42J, Airport Light Bases



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Questions?



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