



U.S. Department
of Transportation

**Federal Aviation
Administration**

Advisory Circular

Subject: LIGHTED VISUAL AID TO INDICATE
TEMPORARY RUNWAY CLOSURE

Date: 07/14/03

AC No: 150/5345-55

Initiated by: AAS-100 **Change:**

1. PURPOSE. This advisory circular (AC) provides guidance in the design of a lighted visual aid to indicate temporary runway closure. The use and application of a lighted visual aid for runway closure is discussed in AC 150/5340-1H, *Standards for Airport Markings*.

2. APPLICATION. This AC is issued for guidance purposes and to outline a method of compliance with Title 14, Code of Federal Regulations, Part 139. It does not constitute a regulation. One may elect to follow an alternate method, provided it also is found by the Federal Aviation Administration (FAA) to be an acceptable means of complying with applicable regulations. Therefore, mandatory terms such as "shall" or "must" used herein apply only to those who seek to demonstrate compliance by use of the specific method without deviation described by this AC, such as those receiving Airport Improvement Program funding.

3. BACKGROUND. There have been instances of aircraft landing on runways that are temporarily closed for maintenance or snow removal operations. The likelihood of unintended landings increases during periods of reduced visibility and at night whenever runway lighting must be on for electrical maintenance or snow removal. The lighted visual aid is intended to eliminate ambiguity concerning the status of the runway and to reduce instances of aircraft landing on temporarily closed runways.

4. RELATED READING MATERIAL. This AC is based on FAA Technical Center report number DOT/FAA/CT-TN87/3. It is available on the Internet at <http://www.faa.gov/arp/engineering/cttn87-3.htm> and is on file at the following location:

William J. Hughes Technical Center,
Information Services Management Branch,
ACT-71,
Atlantic City Int'l. Airport, New Jersey, 08405.

Also refer to paragraph 41 on temporarily closed runways and taxiways in AC 150/5340-1H, *Standards for Airport Markings*.

5. REQUIREMENTS AND PERFORMANCE STANDARDS. A lighted visual aid for indicating a temporarily closed runway shall:

a. Be a portable, towable unit that can be quickly removed from the runway.

b. Consist of clear incandescent lamps or transmit a white color, arranged in the shape of a letter "X" with arms crossed at an appropriate angle to make the "X" discernible. The arms shall be painted yellow on all sides so that the unit will be clearly visible when it is in position.

c. Be energized by a portable power supply.

d. Be controlled so that the lighted signal will flash at an approximate rate of 2.5-3 seconds "on" and 1-2.5 seconds "off".

e. Provide the following daytime and nighttime visual reference during Visual Flight Rule (VFR) conditions when placed on centerline and within 250 feet of the runway end:

(1) Visible to the pilot at a range of at least 5 nautical miles.

(2) Recognizable as a letter "X" from a range of at least 1-1/2 nautical miles.

f. Provide lamp dimming capability for nighttime operations.

g. Produce a signal that provides a horizontal coverage to at least 15 degrees on each side of the runway centerline, and a vertical coverage from 0 degrees to 10 degrees above horizontal, both day and night, at a range of 1-1/2 nautical miles.

h. Adjustable aiming and leveling to allow tilting to an optimum angle of three degrees from vertical.

i. Withstand a minimum wind speed of at least 40 mph without affecting aiming or operation.

j. Include an illuminated failure indicator that is visible from the back (runway side) of the unit.

k. Include an operations placard in a conspicuous location that instructs operators to visually check the operation of the device every two hours.

6. OPTIONS. The following options are acceptable, if specified by the purchaser.

a. One person set up in less than 5 minutes.

b. Gasoline, diesel, and other portable power options, including solar.

c. Trailer hitch options including tandem towing for on-airport operations.

d. Ability to provide up to 120 hours of continuous operation.

e. Fail safe protection to ensure that the unit stays on as continuous light if the flasher unit should fail.

7. DESIGN RECOMMENDATIONS. The following recommendations are provided as guidance for the construction of a unit that meets performance requirements. They are not intended to limit or prevent innovation for meeting performance requirements as specified elsewhere in this AC.

a. Minimum lighting arrangement: nine (9) spotlights mounted on 14-foot arms and spacing 3 feet 6 inches on centers (see figure 1). Each spotlight should be a 150W/120V PAR-38 lamp.

b. Forty (40) volt operation for dimming during nighttime operations.

c. Lifting devices approved by the manufacturer for the intended application.

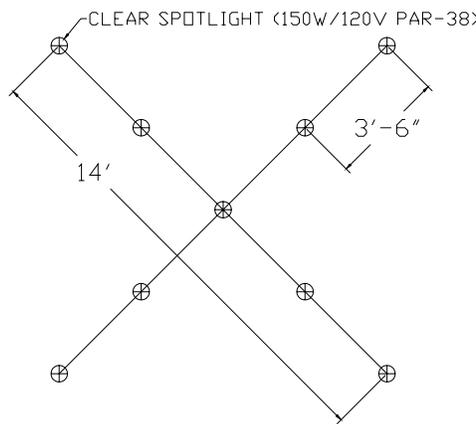


Figure 1. Lighting Arrangement.

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