## Federal Aviation Agency

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STATES OF ATT

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SUBJECT: AIRPLANE POSITION LIGHTS AND SUPPLEMENTARY LIGHTS

## 1. PURPOSB: This circular sets forth:

- a. An acceptable means (but not the only means) of complying with the position light requirements in the Civil Air Regulations dealing with airplane airworthiness.
- b. Acceptable criteria for the installation of supplementary lights on airplanes.
- 2. PERTINENT REGULATIONS: Parts 3.700, 3.701, 3.702, 3.703, 3.705, 4b.632, 4b.633, 4b.634, 4b.635, and 4b.637; TSO Nos. C29 and C30.
- 3. BACKGROUND: Existing regulations and technical standard orders prescribe minimum intensities for exterior lights that must be displayed at night. Equipment producing substantially higher intensities may be used and such use is encouraged by the Agency. Approval has also been asked for exterior lighting systems in which the required lights are arranged or used in unconventional ways, or in which supplementary lights are installed in addition to required lights, raising the question whether such systems are acceptable under current airplane requirements.
- 4. POSITION LIGHTS ACCEPTABLE MEANS OF COMPLIANCE: Installation of the forward position lights at locations other than the wing-tip extremities, and of the rear position light at a location other than the aft extremity, may be acceptable under the provisions of § 3.700(b) and (c) and § 4b.632(b) and (c) if installation of these lights at the extremities would not be practicable for one or more of the following reasons:
  - a. The lights would be adversely affected by the proximity of powerplants or by excessive structural vibration.

- b. Lamp life would be unsatisfactory.
- c. The lights would be inadequately accessible for service.
- 5. SUPPLEMENTARY LIGHTS ACCEPTABLE INSTALLATION CRITERIA: Supplementary lights may be installed in addition to the required lights if:
  - a. The required position lights and anti-collision lights are continuously visible and recognizable, despite the presence of such supplementary lights.
  - b. The conspicuity of the required position lights and anti-collision lights is not degraded by such supplementary lights.
  - c. The color of each required position light and anti-collision light remains readily and unmistakably recognizable.
  - d. The combination of required and supplementary lights is free from confusion and erroneous interpretation with respect to aircraft heading.
  - e. The combination of required and supplementary lights still complies with the flashing characteristics specified in CAR 3.705(b) and CAR 4b.637(b).
  - f. When the supplementary lights are found to interfere with crew vision during flight in clouds or fog, instructions to turn off these lights in such conditions are provided by placards or flight manual information.
- 6. APPROVAL: Approval for position lights or supplementary lights in accordance with the guidelines in this advisory circular may be obtained by applying to the local FAA representative in the usual way.

George S. Moore

Director

light Standards Service