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UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

Civil Air Regulations Amendment 42-25
Effective: August 15, 1954
Adopted: July 9, 1954

IRREGULAR AIR CARRIER AND OFF-ROUTE RULES

ANTI-COLLISION LIGHTS FOR LARGE AIRCRAFT OPERATING AT NIGHT

Currently effective §§ 42.22 of Part 42 of the Civil Air Regulations requires, among other things, that all large aircraft used in operations conducted under this part be equipped with approved forward and rear position lights when operating at night. Recent experience has indicated that there is need for greater conspicuity than can be obtained with the existing systems of steady or flashing position lights, because of the increased speed of airplanes and the increase in the number of airplanes that operate at night. Experiments in recent years revealed that high intensity rotating lights, commonly referred to as anti-collision lights, increase conspicuity to the point where safety in air navigation can be materially improved if aircraft are equipped with such lights. In order to enable the air carriers to evaluate this and other systems of aircraft exterior lighting, the Board promulgated several Special Civil Air Regulations, the most recent of which, SR-392, is currently in effect.

After the service testing of anti-collision lights by certain air carrier operators, it appeared early in 1952 that the anti-collision lights which were then available were satisfactory to those operators as evidenced by their plans for installation on a fleet-wide basis. The Board then established a broad standard for these lights in Part 4b of the Civil Air Regulations for the purpose of assuring a reasonable degree of standardization of anti-collision lights.

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Since the need for increased conspicuity of aircraft operating at night has not diminished but has been magnified by recent experience of near accidents at night, and since there are satisfactory anti-collision lights available which tend to alleviate the danger of collision, the Board considers it necessary in the interest of safety that the installation of anti-collision lights on all large aircraft be made mandatory. This amendment, therefore, requires that all aircraft having a maximum certificated weight of more than 12,500 pounds and used by irregular air carriers in interstate, overseas, or foreign air transportation, or by scheduled air carriers conducting charter flights or special services, be equipped with operable anti-collision lights for night flight. Although it was proposed that this requirement become effective on September 30, 1954, the Board has been informed that in some cases it would require as long as eighteen months to effect a fleet-wide installation. Therefore, to permit an orderly installation of these lights, the effective date of this requirement has been established as June 1, 1956.

Similar amendments are being made to Parts 40, 41, and 43 for all aircraft having a maximum certificated weight of more than 12,500 pounds, and additional study is being given to the possibility of requiring generally similar types of lights for small aircraft.

Since an anti-collision light may become inoperative en route, considerable concern has been expressed over possible delays in schedules which might result if, because of its failure, a flight would not be permitted to continue beyond a stop where facilities for repairs or replacements were not available. It is expected that the air carriers will perform a high level of maintenance on the light so that failures in flight will be relatively infrequent. In view of the fact, however, that each affected aircraft will be equipped with position lights and in view of the relatively few failures anticipated, this amendment permits an aircraft to continue flight, in the event of an anti-collision light failure, to the next stop where proper repairs or replacements can be made.

It is understood that, notwithstanding the promulgation of this amendment, the air carriers have indicated their desire to continue, in conjunction with other interested parties, research and development on the overall problem of aircraft exterior lighting. In this respect, it is expected that the industry will take full advantage of Special Civil Air Regulation SR-392 which authorizes limited experimentation with exterior lighting on air carrier airplanes.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 42 of the Civil Air Regulations (14 CFR, Part 42, as amended), effective August 15, 1954:

1. By amending § 42.22 (b) by deleting the period at the end of subparagraph (1) and inserting a comma in lieu thereof.

2. By adding a new subparagraph (2) to read as follows:

42.22 Additional required instruments and equipment for large aircraft***

(b) Night (VFR and IFR). * * *

(2) After May 31, 1956, an approved anti-collision light; except that in the event of failure of such light, the aircraft may continue flight to the next stop where repairs or replacements can be made.

(Sec. 205 (a), 52 Stat. 984; 49 U.S.C. 425 (a). Interpret or apply secs. 601, 604, 52 Stat. 1007, 1010, as amended; 49 U.S.C. 551, 554)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan
Secretary

(SEAL)

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