

Title 14—Aeronautics and Space
CHAPTER I—FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

[Docket No. 12762; Amdt. No. 121-126]

PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

Ground Proximity Warning Systems

The purpose of this amendment to Part 121 of the Federal Aviation Regulations is to allow the takeoff of large turbine-powered airplanes equipped with either the ground proximity warning system or the ground proximity warning-glide slope deviation alerting system required by § 121.360 without the systems being in operable condition. This action is necessary because of recently-discovered reliability problems with the ground proximity warning system.

Section 121.303(d) provides, in pertinent part, that no person may take off any airplane unless the instruments and equipment required by § 121.360 are in operable condition. Section 121.360(a) prohibits, with certain specified exceptions, the operation of a large turbine-powered airplane after December 1, 1975, unless it is equipped with a ground proximity warning system that meets the performance and environmental standards of TSO-C92 or incorporates TSO-approved ground proximity warning equipment. Section 121.360(f) prohibits, with an exception, the operation of a large turbine-powered airplane after June 1, 1976, unless it is equipped with a ground proximity warning-glide slope deviation alerting system that meets the performance and environmental standards contained in TSO-C92a or incorporates TSO-approved ground proximity warning-glide slope deviation alerting equipment.

By letter of November 19, 1975, the Air Transport Association of America (ATA), on behalf of its member airlines, petitioned the FAA to amend §§ 121.303 and 121.360 to provide relief until September 1, 1976, from the requirement that the ground proximity warning system required by § 121.360 be in operable condition before takeoff. The ATA indicates that this is necessary to allow time to identify and remedy problems with this newly-installed equipment.

The ATA states that several member airlines have activated their ground proximity warning systems to familiarize flight crews with the system and to gain experience with the system in line operations. In this connection the ATA states:

At least two major carriers are experiencing an unacceptably high number of false and nuisance alarms. More specifically, a false warning occurs when the system alarms

although system parameters do not call for one. For example, warnings have occurred on takeoff when the alarm sounds while the aircraft is in a positive rate of climb well outside the TSO envelopes which would require the warning. Warnings have occurred in cruise at high altitude for unexplained reasons as well as during approach when the aircraft is on the localizer and glide slope over flat terrain.

The ATA further states that its members are making every effort to complete the installation of the ground proximity warning system as rapidly as possible. It requests no further relief from the requirement to install the ground proximity warning system, but is "deeply concerned . . . with the effect of false and nuisance warning at anything near the level being experienced now in some line operations." The ATA asserts that:

Pilots will quickly lose confidence in this system if this continues for even a short period of time. Once they lose confidence, it will be practically impossible to regain. Then, the efforts of both FAA and industry to realize the safety benefits which this system promises will have gone for nothing. We will have spent thousands of manhours and millions of dollars on a black box that nobody trusts.

The FAA is aware that some certificate holders have been experiencing problems with false and nuisance warnings. Based on the information presented by the petitioner, it can be anticipated that air carriers would experience hundreds of false and nuisance warnings each week after the December 1, 1975, compliance date. The FAA agrees with the petitioner that this would result in an erosion of pilot confidence which could seriously impair the future effectiveness of this warning system. In view of the foregoing, the FAA has determined that it is in the public interest to grant the petitioner's request to amend §§ 121.303 and 121.360 to provide a reasonable time to establish system reliability.

The FAA intends to carefully monitor the operation of this equipment during this period and will work with the certificate holders to establish guidelines for gathering information on these problems. As part of this monitoring, § 121.303(d) is being amended to provide for the issuance by the Administrator to certificate holders of a plan requiring the operation of the system for the purpose of obtaining data on system reliability. The Principal Operations Inspector assigned to the certificate holder will be responsible for issuing the plan and monitoring the system's reliability operations.

After the current problems affecting a specific airplane type being operated by a certificate holder have been resolved, the authorization for that airplane type to take off with the ground proximity warning system not in operable condition

should be withdrawn. The certificate holder's operations specifications would be amended to specify the date after which the equipment must be in operable condition before takeoff. Section 121.303(d) is being amended accordingly.

Relief is also being provided from § 121.360(d) which prohibits deactivation of a ground proximity warning system required by § 121.360 except in accordance with the procedures contained in the Airplane Flight Manual.

In view of the imminence of the December 1, 1975, effective date of the requirement being extended by this amendment and since this amendment imposes no additional burden on any person, I find that notice and public procedure thereon are impracticable and unnecessary, and that good cause exists for making this amendment effective in less than 30 days.

This amendment is issued under the authority of sections 313(a), 601, and 604 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, and 1424), and section 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

In consideration of the foregoing, Part 121 of the Federal Aviation Regulations is amended, effective November 24, 1975, as follows:

1. By amending § 121.303(d) by deleting the phrase "121.359, and 121.360" and substituting therefor the phrase "and 121.359" in subparagraph (2) and by adding a new subparagraph (3) to read as follows:

§ 121.303 Airplane instruments and equipment.

(d)

(3) After September 1, 1976, the instruments and equipment required by § 121.360, unless required earlier—

(i) In a plan issued to the certificate holder by the Administrator to obtain information on system reliability; or

(ii) In the certificate holder's operations specifications.

2. By revising § 121.360(d) to read as follows:

§ 121.360 Ground proximity warning-glide slope deviation alerting system.

(d) After September 1, 1976 (unless required earlier in the certificate holder's operations specifications), no person may deactivate a ground proximity warning system required by this section except in accordance with the procedures contained in the Airplane Flight Manual.

Issued in Washington, D.C., on November 24, 1975.

JAMES E. Dow,
Acting Administrator.

(As published in the Federal Register [40 F.R. 55313] on November 28, 1975)