

Federal Aviation Administration, DOT

§ 36.7

(vii) IEC Publication 61094-4, entitled "Measurement Microphones—Part 4: Specifications for Working Standard Microphones", edition 1.0, dated 1995.

(viii) IEC Publication 61260, entitled "Electroacoustics-Octave-Band and Fractional-Octave-Band filters", edition 1.0, dated 1995.

(ix) IEC Publication 61265, entitled "Instruments for Measurement of Aircraft Noise-Performance Requirements for Systems To Measure One-Third-Octave-Band Sound pressure Levels in Noise Certification of Transport-Category Aeroplanes," edition 1.0, dated 1995.

(x) IEC Publication 60942, entitled "Electroacoustics—Sound Calibrators," edition 2.0, dated 1997.

(2) *Society of Automotive Engineers (SAE) Publications.* (i) SAE ARP 866A, entitled "Standard Values at Atmospheric Absorption as a Function of Temperature and Humidity for Use in Evaluating Aircraft Flyover Noise," dated March 15, 1975.

(d) *Availability for purchase.* Published material incorporated by reference in this part may be purchased at the price established by the publisher or distributor at the following mailing addresses:

(1) *IEC publications.*

(i) International Electrotechnical Commission, 3, rue de Varembe, Case postale 131, 1211 Geneva 20, Switzerland.

(ii) American National Standard Institute, 11 West 42nd Street, New York City, New York 10036.

(2) *SAE publications.* Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrentown, Pennsylvania 15096.

(e) *Availability for inspection.* A copy of each publication incorporated by reference in this part is available for public inspection at the following locations:

(1) FAA Office of the Chief Counsel, Rules Docket, Room 916, Federal Aviation Administration Headquarters Building, 800 Independence Avenue, SW., Washington, DC.

(2) Department of Transportation, Branch Library, Room 930, Federal Aviation Administration Headquarters Building, 800 Independence Avenue, SW., Washington, DC.

(3) The respective Region Headquarters of the Federal Aviation Administration as follows:

(i) New England Region Headquarters, 12 New England Executive Park, Burlington, Massachusetts 01803.

(ii) Eastern Region Headquarters, Federal Building, John F. Kennedy (JFK) International Airport, Jamaica, New York 11430.

(iii) Southern Region Headquarters, 1701 Columbia Avenue, College Park, Georgia, 30337.

(iv) Great Lakes Region Headquarters, O'Hare Lake Office Center, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

(v) Central Region Headquarters, Federal Building, 601 East 12th Street, Kansas City Missouri 64106.

(vi) Southwest Region Headquarters, 2601 Meacham Boulevard, Fort Worth, Texas, 76137-4298.

(vii) Northwest Mountain Region Headquarters, 1601 Lind Avenue, Southwest, Renton, Washington 98055.

(viii) Western-Pacific Region Headquarters, 15000 Aviation Boulevard, Hawthorne, California 92007.

(ix) Alaskan Region Headquarters, 222 West 7th Avenue, #14, Anchorage, Alaska, 99513.

(x) European Office Headquarters, 15, Rue de la Loi (3rd Floor), B-1040 Brussels, Belgium.

[Amdt. 36-9, 43 FR 8739, Mar. 3, 1978, as amended by Amdt. 36-16, 53 FR 47400, Nov. 22, 1988; Amdt. 36-20, 57 FR 42854, Sept. 16, 1992; Amdt. 36-54, 67 FR 45212, July 8, 2002; Amdt. 36-24, 68 FR 1512, Jan. 10, 2003]

§ 36.7 Acoustical change: Transport category large airplanes and jet airplanes.

(a) *Applicability.* This section applies to all transport category large airplanes and jet airplanes for which an acoustical change approval is applied for under § 21.93(b) of this chapter.

(b) *General requirements.* Except as otherwise specifically provided, for each airplane covered by this section, the acoustical change approval requirements are as follows:

(1) In showing compliance, noise levels must be measured and evaluated in accordance with the applicable procedures and conditions prescribed in Appendix A of this part.

(2) Compliance with the noise limits prescribed in section B36.5 of appendix B must be shown in accordance with the applicable provisions of sections B36.7 and B36.8 of appendix B of this part.

(c) *Stage 1 airplanes.* For each Stage 1 airplane prior to the change in type design, in addition to the provisions of

paragraph (b) of this section, the following apply:

(1) If an airplane is a Stage 1 airplane prior to the change in type design, it may not, after the change in type design, exceed the noise levels created prior to the change in type design. The tradeoff provisions of section B36.6 of appendix B of this part may not be used to increase the Stage 1 noise levels, unless the aircraft qualifies as a Stage 2 airplane.

(2) In addition, for an airplane for which application is made after September 17, 1971—

(i) There may be no reduction in power or thrust below the highest airworthiness approved power or thrust, during the tests conducted before and after the change in type design; and

(ii) During the flyover and lateral noise tests conducted before the change in type design, the quietest airworthiness approved configuration available for the highest approved takeoff weight must be used.

(d) *Stage 2 airplanes.* If an airplane is a Stage 2 airplane prior to the change in type design, the following apply, in addition to the provisions of paragraph (b) of this section:

(1) *Airplanes with high bypass ratio jet engines.* For an airplane that has jet engines with a bypass ratio of 2 or more before a change in type design—

(i) The airplane, after the change in type design, may not exceed either (A) each Stage 3 noise limit by more than 3 EPNdB, or (B) each Stage 2 noise limit, whichever is lower:

(ii) The tradeoff provisions of section B36.6 of appendix B of this part may be used in determining compliance under this paragraph with respect to the Stage 2 noise limit or to the Stage 3 plus 3 EPNdB noise limits, as applicable; and

(iii) During the flyover and lateral noise test conducted before the change in type design, the quietest airworthiness approved configuration available for the highest approved takeoff weight must be used.

(2) *Airplanes that do not have high bypass ratio jet engines.* For an airplane that does not have jet engines with a bypass ratio of 2 or more before a change in type design—

(i) The airplane may not be a Stage 1 airplane after the change in type design; and

(ii) During the flyover and lateral noise tests conducted before the change in type design, the quietest airworthiness approved configuration available for the highest approved takeoff weight must be used.

(e) *Stage 3 airplanes.* If an airplane is a Stage 3 airplane prior to the change in type design, the following apply, in addition to the provisions of paragraph (b) of this section:

(1) If compliance with Stage 3 noise levels is not required before the change in type design, the airplane must—

(i) Be a Stage 2 airplane after the change in type design and compliance must be shown under the provisions of paragraph (d)(1) or (d)(2) of this section, as appropriate; or

(ii) Remain a Stage 3 airplane after the change in type design. Compliance must be shown under the provisions of paragraph (e)(2) of this section.

(2) If compliance with Stage 3 noise levels is required before the change in type design, the airplane must be a Stage 3 airplane after the change in type design.

(3) Applications on or after [August 14, 1989.] The airplane must remain a Stage 3 airplane after the change in type design.

[Amdt. 36-7, 42 FR 12371, Mar. 3, 1977; Amdt. 36-8, 43 FR 8730, Mar. 2, 1978; Amdt. 36-10, 43 FR 28420, June 29, 1978; Amdt. 36-12, 46 FR 33464, June 29, 1981; Amdt. 36-15, 53 FR 16366, May 6, 1988; 53 FR 18950, May 25, 1988; Amdt. 36-17, 54 FR 21042, May 15, 1989; Amdt. 36-54, 67 FR 45212, July 8, 2002]

§ 36.9 Acoustical change: Propeller-driven small airplanes and propeller-driven commuter category airplanes.

For propeller-driven small airplanes in the primary, normal, utility, acrobatic, transport, and restricted categories and for propeller-driven, commuter category airplanes for which an acoustical change approval is applied for under § 21.93(b) of this chapter after January 1, 1975, the following apply:

(a) If the airplane was type certified under this part prior to a change in type design, it may not subsequently exceed the noise limits specified in § 36.501 of this part.