

## A36.9.6 FLIGHT PATH DISTANCES—Continued

Distance	Unit	Meaning
OP .....	Feet (meters)	Approach flight track distance. The distance from the runway threshold to the approach flight track position along the extended center line of the runway after which the position of the airplane need no longer be recorded.

[Amdt. 36–54, 67 FR 45212, July 8, 2002; Amdt. 36–24, 67 FR 63195, 63196, Oct. 10, 2002; 68 FR 1512, Jan. 10, 2003; Amdt. 36–26, 70 FR 38749, July 5, 2005; FAA Doc. No. FAA–2015–3782, Amdt. No. 36–31, 82 FR 46131, Oct. 4, 2017]

# APPENDIX B TO PART 36—NOISE LEVELS FOR TRANSPORT CATEGORY AND JET AIRPLANES UNDER § 36.103

## Sec.

B36.1 *Noise Measurement and Evaluation.*

B36.2 *Noise Evaluation Metric.*

B36.3 *Reference Noise Measurement Points.*

B36.4 *Test Noise Measurement Points.*

B36.5 *Maximum Noise Levels.*

B36.6 *Trade-Offs.*

B36.7 *Noise Certification Reference Procedures and Conditions.*

B36.8 *Noise Certification Test Procedures.*

## Section B36.1 Noise measurement and evaluation

(a) The procedures of Appendix A of this part, or approved equivalent procedures, must be used to determine noise levels of an airplane. These noise levels must be used to show compliance with the requirements of this appendix.

(b) For Stage 4 airplanes, an acceptable alternative to paragraph (a) of this section for noise measurement and evaluation is Appendix 2 to ICAO Annex 16, Volume I, Amendment 7 (Incorporated by reference, see § 36.6).

(c) For Stage 5 airplanes, an acceptable alternative to paragraph (a) of this section for noise measurement and evaluation is Appendix 2 to ICAO Annex 16, Volume 1, Amendment 11–B (Incorporated by reference, see § 36.6).

## Section B36.2 Noise Evaluation Metric

The noise evaluation metric is the effective perceived noise level expressed in EPNdB, as calculated using the procedures of appendix A of this part.

## Section B36.3 Reference Noise Measurement Points

When tested using the procedures of this part, except as provided in section B36.6, an airplane may not exceed the noise levels specified in section B36.5 at the following points on level terrain:

(a) Lateral full-power reference noise measurement point:

(1) For jet airplanes: The point on a line parallel to and 1,476 feet (450 m) from the runway centerline, or extended centerline, where the noise level after lift-off is at a maximum during takeoff. For the purpose of showing compliance with Stage 1 or Stage 2 noise limits for an airplane powered by more than three jet engines, the distance from the runway centerline must be 0.35 nautical miles (648 m). For jet airplanes, when approved by the FAA, the maximum lateral noise at takeoff thrust may be assumed to occur at the point (or its approved equivalent) along the extended centerline of the runway where the airplane reaches 985 feet (300 meters) altitude above ground level. A height of 1427 feet (435 meters) may be assumed for Stage 1 or Stage 2 four engine airplanes. The altitude of the airplane as it passes the noise measurement points must be within + 328 to –164 feet (+100 to –50 meters) of the target altitude. For airplanes powered by other than jet engines, the altitude for maximum lateral noise must be determined experimentally.

(2) For propeller-driven airplanes: The point on the extended centerline of the runway above which the airplane, at full takeoff power, reaches a height of 2,133 feet (650 meters). For tests conducted before August 7, 2002, an applicant may use the measurement point specified in section B36.3(a)(1) as an alternative.

(b) Flyover reference noise measurement point: The point on the extended centerline of the runway that is 21,325 feet (6,500 m) from the start of the takeoff roll;

(c) Approach reference noise measurement point: The point on the extended centerline of the runway that is 6,562 feet (2,000 m) from the runway threshold. On level ground, this corresponds to a position that is 394 feet (120 m) vertically below the 3° descent path, which originates at a point on the runway 984 feet (300 m) beyond the threshold.

## Section B36.4 Test noise measurement points.

(a) If the test noise measurement points are not located at the reference noise measurement points, any corrections for the difference in position are to be made using the same adjustment procedures as for the differences between test and reference flight paths.

(b) The applicant must use a sufficient number of lateral test noise measurement points to demonstrate to the FAA that the maximum noise level on the appropriate lateral line has been determined. For jet airplanes, simultaneous measurements must be made at one test noise measurement point at its symmetrical point on the other side of the runway. Propeller-driven airplanes have an inherent asymmetry in lateral noise. Therefore, simultaneous measurements must