

may be exceeded by one or two of the take-off, flyover, or approach calculated noise levels determined under section H36.203 of this appendix if

- (1) The sum of the exceedances is not greater than 4 EPNdB;
- (2) No exceedance is greater than 3 EPNdB; and
- (3) The exceedances are completely offset by reduction in the other required calculated noise levels.

[Amdt. 36-14, 53 FR 3541, Feb. 5, 1988; 53 FR 4099, Feb. 11, 1988; 53 FR 7728, Mar. 10, 1988, as amended by Amdt. 36-54, 67 FR 45237, July 8, 2002; Amdt. 36-25, 69 FR 31234, June 2, 2004; Amdt. 36-25, 69 FR 41573, July 9, 2004]

#### APPENDIX I TO PART 36 [RESERVED]

#### APPENDIX J TO PART 36—ALTERNATIVE NOISE CERTIFICATION PROCEDURE FOR HELICOPTERS UNDER SUBPART H HAVING A MAXIMUM CERTIFICATED TAKEOFF WEIGHT OF NOT MORE THAN 7,000 POUNDS

##### PART A—REFERENCE CONDITIONS

Sec.

- J36.1 *General.*  
 J36.3 *Reference Test Conditions.*  
 J36.5 [Reserved]

##### PART B—NOISE MEASUREMENT PROCEDURE UNDER § 36.801

- J36.101 *Noise certification test and measurement conditions.*  
 J36.103 [Reserved]  
 J36.105 *Flyover test conditions.*  
 J36.107 [Reserved]  
 J36.109 *Measurement of helicopter noise received on the ground.*  
 J36.111 *Reporting requirements.*  
 J36.113 [Reserved]

##### PART C—NOISE EVALUATION AND CALCULATION UNDER § 36.803

- J36.201 *Noise evaluation in SEL.*  
 J36.203 *Calculation of noise levels.*  
 J36.205 *Detailed data correction procedures.*

##### PART D—NOISE LIMITS PROCEDURE UNDER § 36.805

- J36.301 *Noise measurement, evaluation, and calculation.*  
 J36.303 [Reserved]  
 J36.305 *Noise limits.*

##### PART A—REFERENCE CONDITIONS

###### Section J36.1 *General.*

This appendix prescribes the alternative noise certification requirements identified under § 36.1 of this part and subpart H of this part for helicopters in the primary, normal,

transport, and restricted categories having maximum certificated takeoff weight of not more than 7,000 pounds including:

- (a) The conditions under which an alternative noise certification test under subpart H of this part must be conducted and the alternative measurement procedure that must be used under § 36.801 of this part to measure the helicopter noise during the test;
- (b) The alternative procedures which must be used under § 36.803 of this part to correct the measured data to the reference conditions and to calculate the noise evaluation quantity designated as Sound Exposure Level (SEL); and
- (c) The noise limits for which compliance must be shown under § 36.805 of this part.

###### Section J36.3 *Reference Test Conditions.*

(a) *Meteorological conditions.* The following are the noise certification reference atmospheric conditions which shall be assumed to exist from the surface to the helicopter altitude:

- (1) Sea level pressure of 2116 pounds per square foot (76 centimeters mercury);
- (2) Ambient temperature of 77 degrees Fahrenheit (25 degrees Celsius);
- (3) Relative humidity of 70 percent; and
- (4) Zero wind.

(b) *Reference test site.* The reference test site is flat and without line-of-sight obstructions across the flight path that encompasses the 10 dB down points of the A-weighted time history.

(c) *Level flyover reference profile.* The reference flyover profile is a level flight, 492 feet (150 meters) above ground level as measured at the noise measuring station. The reference flyover profile has a linear flight track and passes directly over the noise monitoring station. Airspeed is stabilized at  $0.9V_H$ ;  $0.9V_{NE}$ ;  $0.45V_H + 65$  kts (120 km/h); or  $0.45V_{NE} + 65$  kts (120 km/h), whichever of the four airspeeds is least, and maintained throughout the measured portion of the flyover. Rotor speed is stabilized at the maximum normal operating RPM throughout the 10 dB-down time interval.

(1) For noise certification purposes,  $V_H$  is defined as the airspeed in level flight obtained using the minimum specification engine power corresponding to maximum continuous power available for sea level pressure of 2,116 psf (1,013.25 hPa) at 77 °F (25 °C) ambient conditions at the relevant maximum certificated weight. The value of  $V_H$  and  $V_{NE}$  used for noise certification must be included in the Flight Manual.

(2)  $V_{NE}$  is the never-exceed airspeed.

(d) The weight of the helicopter shall be the maximum takeoff weight at which noise certification is requested.