corresponding to the airworthiness limit imposed by the manufacturer. For configurations for which the rotor speed automatically links with the flight condition, use the maximum normal operating rotor speed corresponding with the reference flight condition. For configurations for which the rotor speed can change by pilot action, use the highest normal rotor speed specified in the flight manual limitation section for the reference conditions.

K6.2 Takeoff Reference Procedure. The takeoff reference flight procedure is as follows:

(a) A constant takeoff configuration must be maintained, including the nacelle angle selected by the applicant;

(b) The tiltrotor power must be stabilized at the maximum takeoff power corresponding to the minimum installed engine(s) specification power available for the reference ambient conditions or gearbox torque limit, whichever is lower. The tiltrotor power must also be stabilized along a path starting from a point located 1,640 feet (500 m) before the flight path reference point, at 65 ft (20 m) above ground level;

(c) The nacelle angle and the corresponding best rate of climb speed, or the lowest approved speed for the climb after takeoff, whichever is the greater, must be maintained throughout the takeoff reference procedure;

(d) The rotor speed must be stabilized at the maximum normal operating RPM certificated for takeoff;

(e) The weight (mass) of the tiltrotors must be the maximum takeoff weight (mass) as requested for noise certification; and

(f) The reference takeoff flight profile is a straight line segment inclined from the starting point 1,640 feet (500 m) before to the center noise measurement point and 65 ft (20 m) above ground level at an angle defined by best rate of climb and the speed corresponding to the selected nacelle angle and for minimum specification engine performance.

K6.3 Flyover Reference Procedure. The flyover reference flight procedure is as follows:

(a) The tiltrotor must be stabilized for level flight along the centerline flyover flight path and over the noise measurement reference point at an altitude of 492 ft (150 m) above ground level;

(b) A constant flyover configuration selected by the applicant must be maintained;

(c) The weight (mass) of the tiltrotor must be the maximum takeoff weight (mass) as requested for noise certification;

(d) In the VTOL/Conversion mode:

(1) The nacelle angle must be at the authorized fixed operation point that is closest to the shallow nacelle angle certificated for zero airspeed;

(2) The airspeed must be $0.9V_{CON}$ and

(3) The rotor speed must be stabilized at the maximum normal operating RPM certificated for level flight.

K6.4 Approach Reference Procedure. The approach reference procedure is as follows:

(a) The tiltrotor must be stabilized to follow a 6.0 degree approach path;

(b) An approved airworthiness configuration in which maximum noise occurs must be maintained;

(1) An airspeed equal to the best rate of climb speed corresponding to the nacelle angle, or the lowest approved airspeed for the approach, whichever is greater, must be stabilized and maintained; and

(2) The tiltrotor power during the approach must be stabilized over the flight path reference point, and continue as if landing;

(c) The rotor speed must be stabilized at the maximum normal operating RPM certificated for approach;

(d) The constant approach configuration used in airworthiness certification tests, with the landing gear extended, must be maintained; and

(e) The weight (mass) of the tiltrotor at landing must be the maximum landing weight (mass) as requested for noise certification.

Section K7 Test Procedures

K7.1 [Reserved]

K7.2 The test procedures and noise measurements must be conducted and processed to yield the noise evaluation measure designated in section K2 of this appendix.

K7.3 If either the test conditions or test procedures do not comply to the applicable noise certification reference conditions or procedures prescribed by this part, the applicant must apply the correction methods described in section H36.205 of Appendix H of this part to the acoustic test data measured.

K7.4 Adjustments for differences between test and reference flight procedures must not exceed:

(a) For takeoff: 4.0 EPNdB, of which the arithmetic sum of delta 1 and the term -7.5 log (QK/QrKr) from delta 2 must not in total exceed 2.0 EPNdB;

(b) For flyover or approach: 2.0 EPNdB.

K7.5 The average rotor RPM must not vary from the normal maximum operating RPM by more than ±1.0 percent throughout the 10 dB-down time interval.

K7.6 The tiltrotor airspeed must not vary from the reference airspeed appropriate to the flight demonstration by more than ±5 kts (±9 km/h) throughout the 10 dB-down time interval.

K7.7 The number of level flyovers made with a head wind component must be equal to the number of level flyovers made with a tail wind component.

K7.8 The tiltrotor must operate between ±10 degrees from the vertical or between ±65 feet (±20 m) lateral deviation tolerance,