

corrected to reference conditions may be derived from FAA approved manufacturer's data.

(ii) The sound propagation paths to the microphone from the aircraft position corresponding to PNLTM must be determined for both the test and reference profiles. The SPL values in the spectrum of PNLTM must then be corrected for the effects of—

(A) Change in atmospheric sound absorption;

(B) Atmospheric sound absorption on the linear difference between the two sound path lengths; and

(C) Inverse square law on the difference in sound propagation path length. The corrected values of SPL must then be converted to a reference condition PNLTM value from which PNLTM must be subtracted. The resulting difference represents the correction which must be added algebraically to the EPNL calculated from the measured data.

(iii) As observed at the noise measuring station, the measured PNLTM distance is different from the reference PNLTM distance and therefore the ratio must be calculated and used to determine a noise duration cor-

rection factor. Effective perceived noise level, EPNL, is determined by the algebraic sum of the maximum tone corrected perceived noise level (PNLTM) and the duration correction factor.

(iv) For aircraft flyover, alternative source noise corrections require FAA approval and must be determined and adjusted to account for noise level changes caused by the differences between measured test conditions and reference conditions.

(b) *Takeoff profiles.* (1) Figure H1 illustrates a typical takeoff profile, including reference conditions.

(i) The reference takeoff flight path is described in section H36.3(c).

(ii) The test parameters are functions of the helicopter's performance and weight and the atmospheric conditions of temperature, pressure, wind velocity and direction.

(2) For the actual takeoff, the helicopter approaches position C in level flight at 65 feet (20 meters) above ground level at the flight track noise measuring station and at either  $V_y \pm 5$  knots or the lowest approved speed for the climb after takeoff, whichever speed is greater.