Tire Pressure (psi)	Maximum Braking Coefficient (tire-to-ground)
50	$\mu_{t/g_{MAX}} = 0.1470\left(\frac{V}{100}\right)^5 - 1.050\left(\frac{V}{100}\right)^4 + 2.673\left(\frac{V}{100}\right)^3 - 2.683\left(\frac{V}{100}\right)^2 + 0.403\left(\frac{V}{100}\right) + 0.859$
100	$\mu_{t/g_{MAX}} = 0.1106\left(\frac{V}{100}\right)^5 - 0.813\left(\frac{V}{100}\right)^4 + 2.130\left(\frac{V}{100}\right)^3 - 2.200\left(\frac{V}{100}\right)^2 + 0.317\left(\frac{V}{100}\right) + 0.807$
200	$\mu_{t/g_{MAX}} = 0.0498\left(\frac{V}{100}\right)^5 - 0.398\left(\frac{V}{100}\right)^4 + 1.140\left(\frac{V}{100}\right)^3 - 1.285\left(\frac{V}{100}\right)^2 + 0.140\left(\frac{V}{100}\right) + 0.701$
300	$\mu_{t/g_{MAX}} = 0.0314\left(\frac{V}{100}\right)^5 - 0.247\left(\frac{V}{100}\right)^4 + 0.703\left(\frac{V}{100}\right)^3 - 0.779\left(\frac{V}{100}\right)^2 - 0.00954\left(\frac{V}{100}\right) + 0.614$

Where—

Tire Pressure = maximum airplane operating tire pressure (psi);

$\mu_{t/gMAX}$ = maximum tire-to-ground braking coefficient;

V = airplane true ground speed (knots); and

Linear interpolation may be used for tire pressures other than those listed.

(e) Except as provided in paragraph (f)(1) of this section, means other than wheel brakes may be used to determine the accelerate-stop distance if that means—

(1) Is safe and reliable;

(2) Is used so that consistent results can be expected under normal operating conditions; and

(3) Is such that exceptional skill is not required to control the airplane.

(f) The effects of available reverse thrust—

(1) Shall not be included as an additional means of deceleration when determining the accelerate-stop distance on a dry runway; and

(2) May be included as an additional means of deceleration using recommended reverse thrust procedures when determining the accelerate-stop distance on a wet runway, provided the requirements of paragraph (e) of this section are met.

(g) The landing gear must remain extended throughout the accelerate-stop distance.

(h) If the accelerate-stop distance includes a stopway with surface characteristics substantially different from those of the runway, the takeoff data must include operational correction factors for the accelerate-stop distance. The correction factors must account for the particular surface characteristics of the stopway and the variations in these characteristics with seasonal weather conditions (such as temperature, rain, snow, and ice) within the established operational limits.

(i) A flight test demonstration of the maximum brake kinetic energy accelerate-stop distance must be conducted with not more than 10 percent of the allowable brake wear range remaining on each of the airplane wheel brakes.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25–42, 43 FR 2321, Jan. 16, 1978; Amdt. 25–92, 63 FR 8318, Feb. 18, 1998]

§ 25.111 Takeoff path.

(a) The takeoff path extends from a standing start to a point in the takeoff at which the airplane is 1,500 feet above the takeoff surface, or at which the transition from the takeoff to the en route configuration is completed and V_{FTO} is reached, whichever point is higher. In addition—

(1) The takeoff path must be based on the procedures prescribed in § 25.101(f);

(2) The airplane must be accelerated on the ground to $V_{EF,}$ at which point the critical engine must be made inoperative and remain inoperative for the rest of the takeoff; and

(3) After reaching $V_{EF,}$ the airplane must be accelerated to V_2.

(b) During the acceleration to speed V_2, the nose gear may be raised off the ground at a speed not less than V_R. However, landing gear retraction may not be begun until the airplane is airborne.

(c) During the takeoff path determination in accordance with paragraphs (a) and (b) of this section—