

Northwest Airlines Flight 255, McDonnell Douglas DC-9-82, N312RC

Relevant Regulation

Part 25 AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

Subpart B – Flight

Performance

§ 25.113 Takeoff distance and takeoff run.

(Amdt. 25-92, Eff. 3/20/1998)

- (a) No person operating a turbine engine powered transport category airplane may take off that airplane at a weight greater than that listed in the Airplane Flight Manual for the elevation of the airport and for the ambient temperature existing at takeoff.
- (a) Takeoff distance on a dry runway is the greater of –
 - (1) The horizontal distance along the takeoff path from the start of the takeoff to the point at which the airplane is 35 feet above the takeoff surface, determined under § 25.111 for a dry runway; or
 - (2) 115 percent of the horizontal distance along the takeoff path, with all engines operating, from the start of the takeoff to the point at which the airplane is 35 feet above the takeoff surface, as determined by a procedure consistent with § 25.111.
- (b) Takeoff distance on a wet runway is the greater of –
 - (1) The takeoff distance on a dry runway determined in accordance with paragraph (a) of this section; or
 - (2) The horizontal distance along the takeoff path from the start of the takeoff to the point at which the airplane is 15 feet above the takeoff surface, achieved in a manner consistent with the achievement of V_2 before reaching 35 feet above the takeoff surface, determined under § 25.111 for a wet runway.
- (c) If the takeoff distance does not include a clearway, the takeoff run is equal to the takeoff distance. If the takeoff distance includes a clearway –
 - (1) The takeoff run on a dry runway is the greater of –
 - (i) The horizontal distance along the takeoff path from the start of the takeoff to a point equidistant between the point at which V_{LOF} is reached and the point at which the airplane is 35 feet above the takeoff surface, as determined under § 25.111 for a dry runway; or
 - (ii) 115 percent of the horizontal distance along the takeoff path, with all engines operating, from the start of the takeoff to a point equidistant between the point at which V_{LOF} is reached and the point at which the

airplane is 35 feet above the takeoff surface, determined by a procedure consistent with § 25.111.

- (2) The takeoff run on a wet runway is the greater of –
- (i) The horizontal distance along the takeoff path from the start of the takeoff to the point at which the airplane is 15 feet above the takeoff surface, achieved in a manner consistent with the achievement of V_2 before reaching 35 feet above the takeoff surface, as determined under § 25.111 for a wet runway; or
 - (ii) 115 percent of the horizontal distance along the takeoff path, with all engines operating, from the start of the takeoff to a point equidistant between the point at which V_{LOF} is reached and the point at which the airplane is 35 feet above the takeoff surface, determined by a procedure consistent with § 25.111.