

## SPECIAL CIVIL AIR REGULATION NO. SR-422B

**4T.122 *Landing distance.*** The landing distance shall be the horizontal distance required to land and to come to a complete stop (to a speed of approximately 3 knots in the case of seaplanes or float planes) from a point at a height of 50 feet above the landing surface. Landing distances shall be determined for standard temperatures at all weights, altitudes and winds, within the operational limits established by the applicant for the airplane. The conditions of paragraphs (a) through (g) of this section shall apply.

- (a) The airplane shall be in the landing configuration. During the landing, changes in the airplane's configuration, in power and/or thrust, and in speed shall be in accordance with procedures established by the applicant for the operation of the airplane in service. The procedures shall comply with the provisions of section 4T.111(c).
- (b) The landing shall be preceded by steady gliding approach down to the 50-foot height with a calibrated airspeed of not less than  $1.3V_s$ .
- (c) The landing distance shall be based on a smooth, dry, hard-surfaced runway, and shall be determined in such a manner that reproduction does not require exceptional skill or alertness on the part of the pilot. In the case of seaplanes or float planes, the landing surface shall be smooth water, while for skiplanes it shall be smooth, dry snow. During landing, the airplane shall not exhibit excessive vertical acceleration, a tendency to bounce, nose over, ground loop, porpoise, or water loop.
- (d) The landing distance shall include operational correction factors for not more than 50 percent of nominal wind components along the landing path opposite to the direction of landing and not less than 150 percent of nominal wind components along the landing path in the direction of landing.
- (e) During landing, the operation pressures on the wheel braking system shall not be in excess of those approved by the manufacturer of the brakes, and the wheel brakes shall not be used in such a manner as to produce excessive wear of brakes and tires.
- (f) In addition to, or in lieu of, wheel brakes, the use of other braking means shall be acceptable in determining the landing distance. Provided such braking means shall have been proven to be safe and reliable, that the manner of their employment is such that consistent results can be expected in service, and that exceptional skill is not required to control the airplane.
- (g) If the characteristics of a device (e.g., the propellers) dependent upon the operation of any of the engines noticeably increase the landing distance when the landing is made with the engine inoperative, the landing distance shall be determined with the critical engine inoperative unless the Administrator finds that the use of compensating means will result in a landing distance not greater than that attained with all engines operating.