

7KCAB CITABRIA SPEEDS

NOTE: All airspeeds shown are expressed in Miles Per Hour (MPH) Indicated Airspeed (IAS) and are based on the aircraft at maximum gross weight unless otherwise noted.

Published V-Speeds

V-Speed Symbol	Speed Value	What Is It?
V _{SO}	50 MPH	Stall speed or minimum steady flight speed in the landing configuration.
V _R	50 MPH, Short Field 55 MPH, Normal	Rotation speed. The speed at which the tailwheel is lowered towards the runway during takeoff.
V _X	58 MPH	Best Angle speed. In a climb it provides the maximum gain in altitude for the <i>distance</i> traveled forward.
V _Y	69 MPH	Best Rate speed. In a climb it provides the maximum gain in altitude per unit of <i>time</i> traveled.
V _{ENROUTE CLIMB}	75-80 MPH	In a climb it provides increased forward visibility and engine cooling.
V _{BEST GLIDE}	65 MPH	In a glide it provides the maximum distance traveled forward with the minimum altitude lost.
V _A	120 MPH, 1750 LBS	Design Maneuvering speed. Maximum speed at which full, abrupt deflection of the controls can be made without causing structural damage. Reduce speed to this value when in rough air.
V _{NO}	120 MPH	Maximum Structural Cruising speed. Do not exceed this speed except in <i>smooth</i> air.
V _{NE}	162 MPH	Never Exceed speed. Do not exceed this speed under any circumstances.
V _{NEGATIVE "G"}	135 MPH	Maximum speed during a negative "G" condition
V _{WINDOW OPEN}	130 MPH	Maximum speed at which the windows may be open.
Max. Demonstrated Crosswind	* <u>17 KTS</u>	Maximum crosswind component during which the aircraft has been landed by the manufacturer test pilot.

Airspeed Indicator Markings

Range	Arc Color	Speed Values	What Is It?
Normal Operating	Green	50-120 MPH	Range of speed at which the aircraft is normally operated.
Caution	Yellow	120-162 MPH	Range of speed at which the aircraft should be operated only in <i>smooth</i> air, and then only with caution.
Never Exceed	Red Line	162 MPH	Never Exceed speed. Do not exceed this speed under any circumstances.

Operational Speeds

Operation	Speed Values
Normal Takeoff	1.) V_R 55 MPH 2.) V_Y 69 MPH
Short-Field Takeoff, No Obstacle	1.) V_R 50 MPH 2.) V_Y 69 MPH
Short-Field Takeoff, Obstacle Clearance	1.) V_R at 50 MPH 2.) V_X 58 MPH 3.) V_Y 69 MPH (when obstacle cleared)
Soft-Field Takeoff, No Obstacle	1.) Lift off as soon as possible 2.) V_Y 69 MPH
Soft-Field Takeoff, Obstacle Clearance	1.) Lift off as soon as possible 2.) V_X 58 MPH 3.) V_Y 69 MPH (when obstacle cleared)
Normal Landing	1.) 60-70 MPH final approach
Short-Field Landing	1.) 60 MPH final approach
Soft-Field Landing	1.) 60 MPH final approach
Traffic Pattern	1.) Downwind: 90 MPH 2.) Abeam Touchdown: 80 MPH 3.) Base: 70 MPH 4.) Final: 60-70 MPH

Average Cruise Speeds (based on 5000 feet Pressure Altitude, Standard OAT, Wheel Fairings Installed)

75% power, Best Power Leaning	129 MPH (109 KTS)
65% power, Best Power Leaning	123 MPH (104 KTS)
55% power, Best Power Leaning	115 MPH (98 KTS)