

SHORT-FIELD APPROACH RULE OF THUMB

Carry no less than 1.3 times the “dirty” stall speed (V_{SO}) on approach. Don't get behind the power curve. Don't get too slow. And be smart with your brakes when you touch down. The first part of this, the approach speed, is actually codified in the aircraft certification FARs:

§ 23.73 Reference landing approach speed. [For light aircraft.]

(a) For normal, utility, and acrobatic category reciprocating engine-powered airplanes of 6000 pounds or less maximum weight, the reference landing approach speed, V_{REF} , must not be less than the greater of V_{MC} , determined in §23.149(b) with the wing flaps in the most extended takeoff position, and $1.3 V_{SO}$.

(b) For normal, utility, and acrobatic category reciprocating engine-powered airplanes of more than 6000 pounds maximum weight, and turbine engine-powered airplanes in the normal, utility, and acrobatic category, the reference landing approach speed, V_{REF} , must not be less than the greater of V_{MC} , determined in §23.149(c), and $1.3 V_{SO}$.

(c) For commuter category airplanes, the reference landing approach speed, V_{REF} , must not be less than the greater of $1.05 V_{MC}$, determined in §23.149(c), and $1.3 V_{SO}$.

For most conditions, 1.3 times V_{SO} on approach is reasonable, but what speed should you have over the fence or at the threshold to ensure the shortest landing? Again, it depends. Is there turbulence or gusty winds? Do you need to stop short to miss something, like a fence, berm, deer, human or alien spacecraft? In other words, do you really need to land at the very threshold of the runway? Or do you have some freedom to allow a bit of flare and float to arrest your sink rate and smooth the touchdown?

Look at your past and future landings, then develop your own short-field rule of thumb. My rule of thumb is 1.3 times V_{SO} on approach, 1.2 over the fence, and 1.1 at the threshold if conditions are calm enough to allow it.

