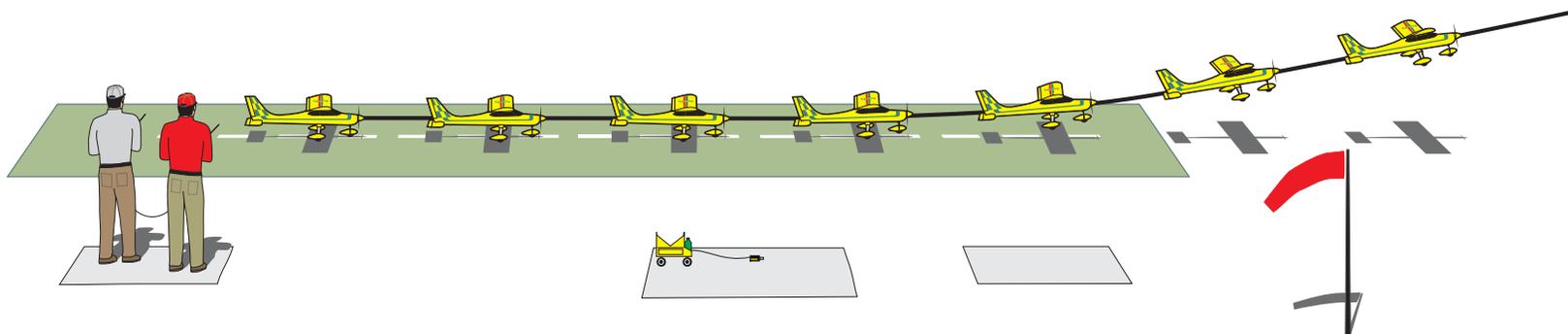
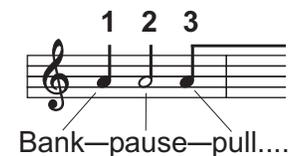
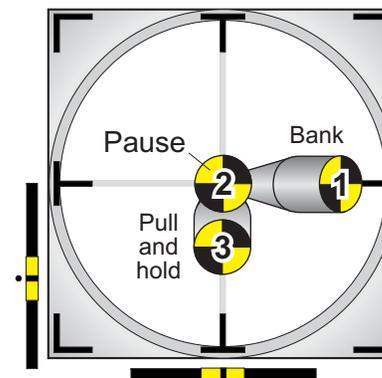


Takeoff



Low altitude procedure turns: The importance of not holding in aileron during a turn should be clear by now. However, the initial excitement of taking off and turning lower to the ground can cause a novice pilot to accidentally hold in the aileron while evaluating (reacting to) the start of his turn.

The *neutral solution* is an alternative technique used to successfully get through turns anytime the pilot is anxious, esp. low to the ground: Since it is unlikely that you will get into trouble turning as long as you do not hold in the aileron, you can safeguard your low level turns by briefly *pausing* at neutral after establishing the bank, before pulling up elevator. True, you may be allowing the plane to lose a few feet, but that's minor compared to accidentally holding in some aileron with the elevator and entering a spiral dive! The *neutral solution* safeguard turn is paced with the time it would normally take to say or think, "bank-pause-pull."

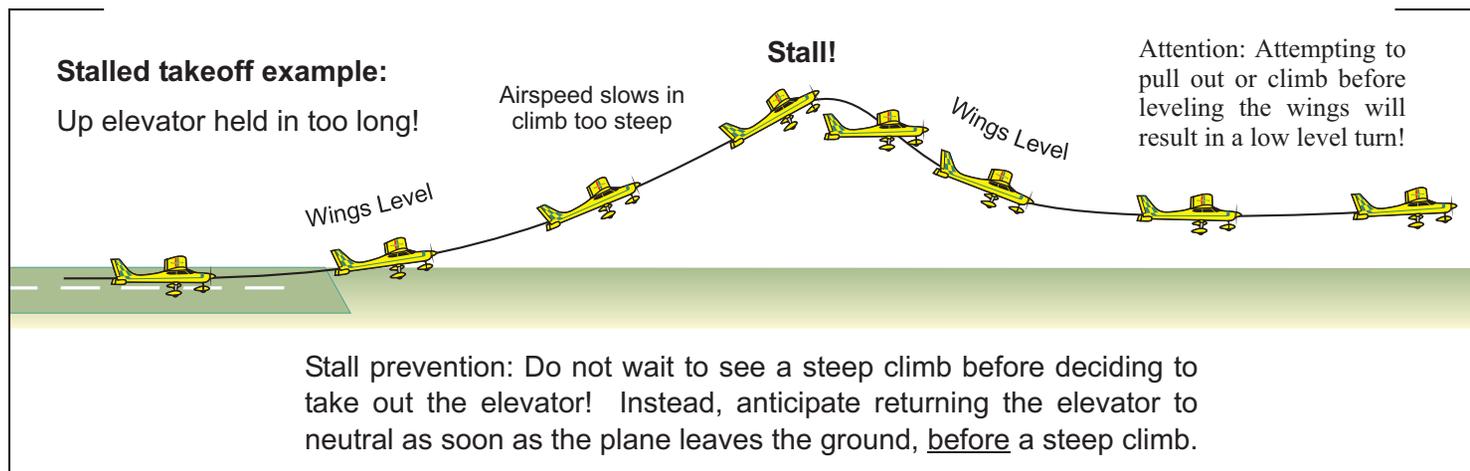


Knowing How to Takeoff

In this section: G-76 illustrates a standard takeoff sequence. Note that these takeoff sequences assume that the airplane is trimmed for level flight at approx. 1/3 throttle.

The concern new pilots often have taking off is avoiding a “stall”. Understand that it is not the amount of up elevator used to pull the plane up off the ground that causes a stall, it is the length of time that the up elevator is held in, i.e., too long, that could cause a stall. Recall the full-scale saying, “If you want to go down, keep pulling up!”

Hence, a pilot must be prepared to smoothly neutralize the elevator as soon as the plane leaves the ground. Neutralizing the elevator effects a shallower climb, thus the plane is able to maintain greater airspeed (wing lift) and climb on its own at full power. That being said, the single most important aspect of taking off is keeping the wings level to avoid entering a turn low to the ground!



G-77 through G-80 illustrate standard takeoffs and establishing a level landing pattern.

G-81 illustrates establishing a lower pattern, and the *short* or *soft field takeoffs* used on rough flying fields and/or for clearing obstacles at the end of the runway.