

Landing by the Numbers: How Good Flyers Make it Look so Easy!

A good landing is the result of a good approach setup: The ease of your landings will reflect the quality of the base leg turns. Whether you actually land or not will depend on your making small bumps, one at a time. This is to say that you could perform a poor turn, but probably still land the plane if you made good bumps, however, the experience will be quite stressful. On the other hand, you can fly a perfectly level turn and feel quite good, but if you make too many large bumps, or hold one of them in, you will be too busy fixing your own fixes to attempt a landing! Make good bumps and you will get it on the ground. Keep the turns level, and you will also feel more comfortable.

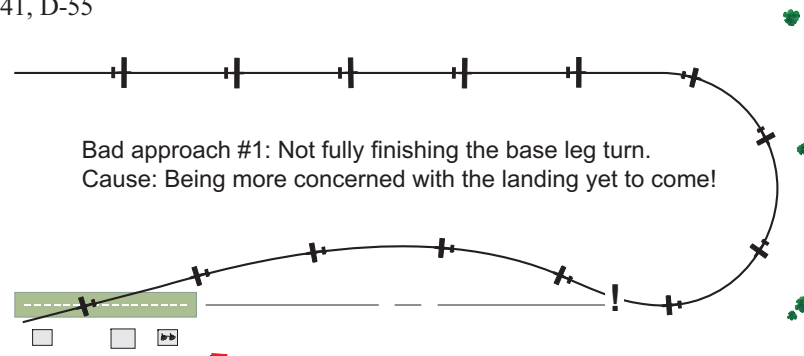
#1. Establish a closer downwind leg. Keeping the downwind leg closer makes the base leg turn target consistently easier to get to. Pg. E-64, 66

#2. Where you start the base leg turn. With consideration for wind, targeting where to start the base leg turn from to come out near the extended runway centerline reduces the number of corrections needed during the approach — granting more time to consider when to idle the engine and land. Pg. E-60-66

#3. Attention to a level turn. Maintaining an even speed turn, not climbing or diving, minimizes anxiety correcting the turn (you can even briefly start correcting the wrong direction and fix it with little consequence). A level turn also eliminates low altitude oscillations, i.e., sharp altitude changes, that can take attention away from establishing or maintaining a good lineup. Pg. C-40, 41, D-55

#4. A full correction of the turn.

After establishing a good target and maintaining a level turn, the turn must be fully corrected (wings level) to reap the benefits of a lineup requiring few corrections. Pg. A-5, C-42, E-65



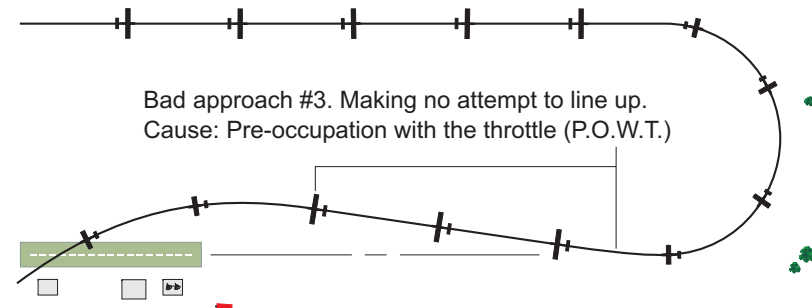
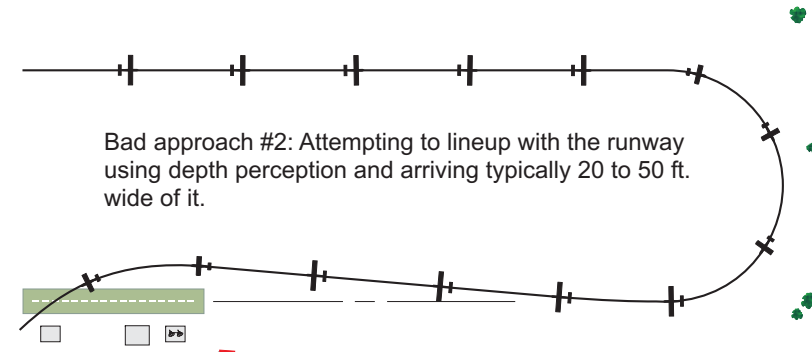
Landing by the Numbers Continued

#5. Lineup. Projecting where the airplane as a whole is heading, in reference to yourself, reveals deviations during the approach before they become otherwise obvious. The corrections that are needed to perfect the center of the runway when it comes into view are therefore practically negligible. Pg. E-58, 59, 67

Note: Low time pilots who try to line up with the runway using hit-or-miss depth perception will routinely line up wide of it. Often stating, “I didn’t think I was that far out.”

Those who practice lining up the plane as a whole slightly in front of themselves will arrive over the runway regardless of the model’s size, height, or orientation (crab angle).

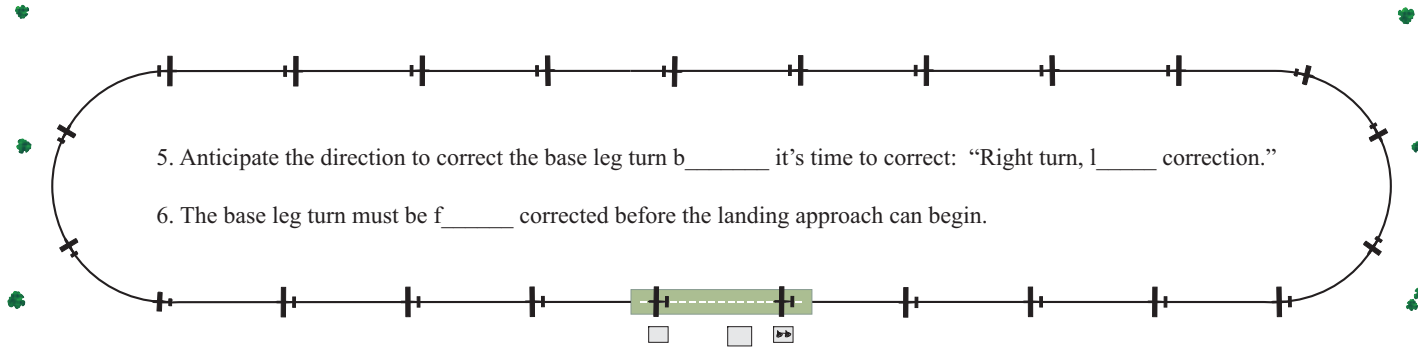
Side note: Pilots eager to land need to guard against a **pre-occupation with the throttle (P.O.W.T.)**, i.e., focusing so much on altitude and throttle that only half-efforts are made to correct the turn and line up. Whereas, those who prioritize getting lined up right away typically end up having to wait to idle the engine.



#6. Throttle. When all is well, decide when to idle. Pg. H-92

#7. Flare. Made much easier by the fact that everything was orderly and settled down leading up to it. Pg. J-103

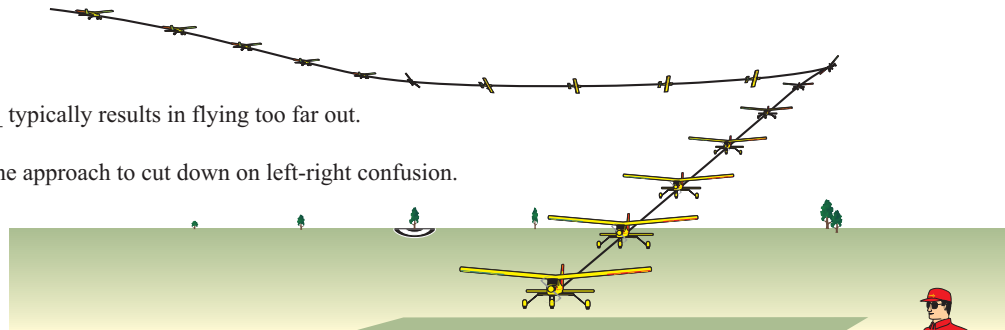
1. Use g_____ references to add consistency to your landing pattern.
2. Keeping the downwind leg c_____ makes the base leg turn target easier to get to.
3. Adjust where you s_____ the base leg turn from, not the turn itself, to come out near the runway centerline.
4. Keeping the base leg turn l_____ makes everything else that follows easier.



5. Anticipate the direction to correct the base leg turn b_____ it's time to correct: "Right turn, l_____ correction."
6. The base leg turn must be f_____ corrected before the landing approach can begin.

7. Lining up the approach in reference to y_____ is the most definite way to know you're lined up.
8. Project where the airplane as a w_____ is heading, not where it is pointing.

9. Trying to line up with the r_____ typically results in flying too far out.
10. Utilize body r_____ during the approach to cut down on left-right confusion.



11. It's better to make two separate s_____ aileron bumps than one big one, or hold one in.
12. Establish the lineup b_____ idling the engine.
13. Most landing difficulties are due to not s_____ ing the base leg turn in the right spot, and/or not keeping the turn l_____.

- | | |
|-------------|--------------|
| 1. ground | 8. whole |
| 2. close | 9. runway |
| 3. start | 10. rotation |
| 4. level | 11. small |
| 5. before | 12. before |
| left | 13. starting |
| 6. fully | level |
| 7. yourself | |