



Training: Bob Juncosa

“Landing – The Only Mandatory Part of Flying”

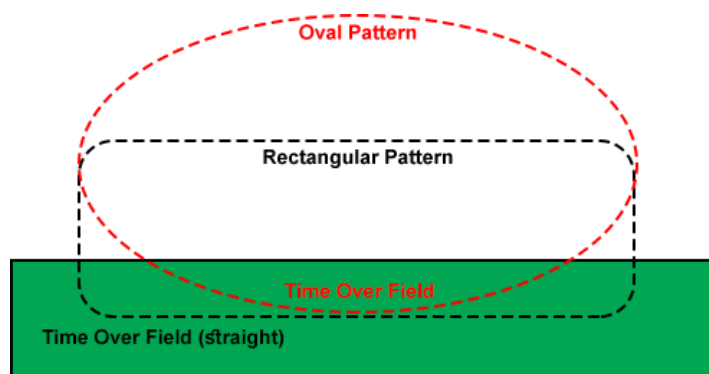
There are tons of R/C airplane videos on YouTube videos and I must confess, I usually fast forward through the tedious setup and engine start so I can watch the taxi out and take-off. With the exception of the occasional low pass, I also skip through the pattern circuits so I can watch the best part, the landing. I just love watching someone stick the perfect landing.

A good landing starts with being in the right position long before you are on final approach. When I am ready to start the landing process, I like to do at least one full rectangular circuit around the pattern at a comfortable cruise speed somewhere between 30-50 feet in the air. My angle of vision is tipped up maybe 10-15° when the plane is in front of me. This circuit gives me a pretty good indication of what the wind conditions will be during each segment of the landing. During the pass over the field, I announce my intention to land. (I like it when I get a confirmation from another pilot on the flightline.)

When making the crosswind turn away from the field, I adjust my altitude so that from the time I start the downwind leg, I can keep the same rate of decent all the way to touchdown. Too high and my rate of decent and air speed will be too high for a good landing. Too low and I'll have to maintain slow and level flight just to get all the way around.

When turning onto the downwind leg, the plane will pick up ground speed but lose airspeed because of the tailwind. A throttle adjustment may be necessary to keep that constant rate of decent. When turning onto the base leg, the plane will lose some airspeed because of the loss of the tail wind so another throttle adjustment may be necessary. You may also have to use a little aileron if the wind catches under the upwind wing causing it to tip.

Now comes the turn onto your final approach. Here is why flying a rectangular pattern is important. When flying an oval pattern, you are actually over the center of the runway for only a short period of time and that is when the plane is almost in front of you. An oval pattern also means that you are never flying in a straight line. If you flatten out the bottom of the oval to land it a straight line, you will either be at the edge of the runway or off of it completely. Another reason is that a rectangular pattern will help with the process of determining when to turn onto final.



We have all heard plenty of tricks on how to know when to turn onto final approach. Most involve picking out some landmark before initiating the turn. That's fine but you will need a landmark for each of directions you could be coming from and they may not work from every pilot's position at the field. They certainly will be of no help when you are at another field.

When you are in the flight box, stand with your shoulders parallel to the runway. Turn your just your head when flying, not your body. When you are flying the base leg, keep following the plane with your head so that the plane is in the center of your vision. Keep going until you head is pointed over your shoulder and it is harder to turn your head any further. Now make your turn onto final. I know it will seem like you are lined up to land in the pit area or even the parking lot but trust me. If you have made a standard rate turn, you will be perfectly lined up down the center of the runway.



Now that you are on your final approach, here is where discipline comes in. Use aileron only to keep your wings level. Use the rudder to keep the plane on the centerline. Please re-read those last two sentences again. One more time.

Now for touchdown. If all has gone well so far, the plane is over centerline at the far end of the runway and slowly descending. When you are over the runway, use the throttle and elevator to maintain airspeed with a slightly nose down attitude. Maintain that almost all the way to the ground. When you are about to contact the ground, a little up elevator and a little decrease in the throttle will flare the plane and will slow it down just enough to lose the last bit of altitude until the plane touches down. *Viola!*

Next time, more details about the touch down.

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