

## Rectangular Course

**About:** Training maneuver in which the airplane maintains an equal distance from all sides of the selected rectangular reference.

**TSW:** Learn to maintain a specific relationship between the airplane and the ground.

**How:** Flying a ground track equidistant from all sides of a selected rectangular area on the ground while maintaining a constant altitude and airspeed.

### Procedure:

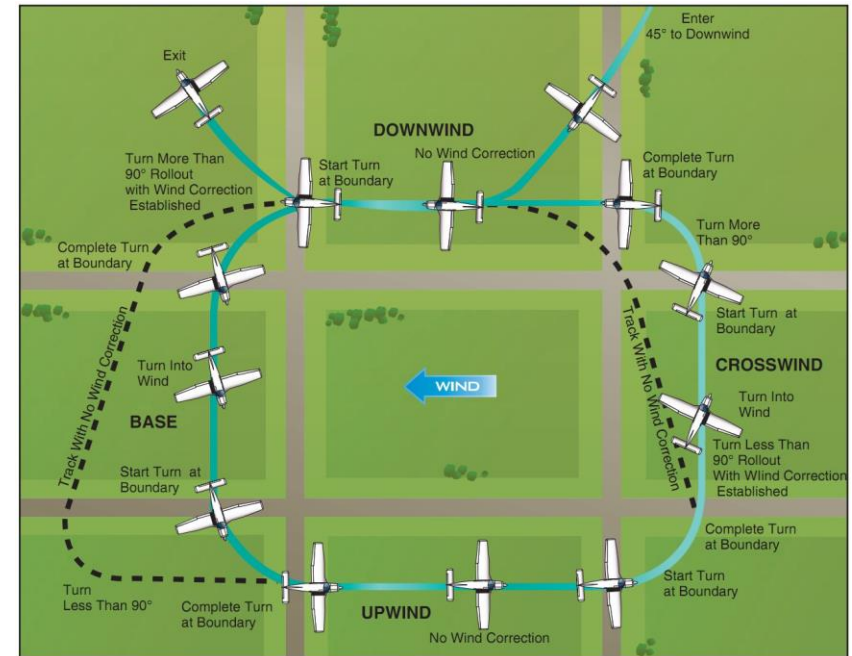
1. Two 90 degree clearing turns
2. Establish  $V_A$  or the recommended entry speed
3. Maintain 600 – 1000 AGL, Trim for level flight
4. Enter maneuver 45 to downwind
5. Turn crosswind- steepest turn for fastest ground speed
  - a. Roll out wings level: crap into wind
6. Turn upwind: < 90 degrees: slowest ground speed
7. Turn crosswind: < 90 degrees: crab into wind
8. Turn downwind: > 90 degrees: exit at point of entry

### Discussion Points:

1. Trim for level flight prior to maneuver.
2. Determine wind direction and speed (AWOS)
3. Ensure emergency landing area available for selected field.
4. During turns, to maintain altitude, back pressure increased.
5. Don't overuse rudder to encourage turn (skidding turn)
6. Establish crab into wind (crosswind/ base) to maintain ground track
7. Look outside (ground track), peak inside (Altimeter/ Airspeed).

### Evaluations/ Standards:

9. Maintain the entry altitude  $\pm 100$  feet, airspeed  $\pm 10$  knots
10. Apply adequate wind correction- constant ground track



### Common errors:

- Failure to clear area and establish proper altitude prior to entry.
- Fixating on the field and forgetting to look for other air traffic.
- Not selecting a proper distance from the field boundary.
- Turns are uncoordinated; skidding in turns from a downwind
- Not dividing attention correctly.
  - Attempting to perform the maneuver by instrument reference
- Failure to recognize or not correcting (crabbing) for wind drift.
- Not using correct bank angles in turns. (+45 degrees)
- Selection of a ground reference where there is no suitable emergency landing area within the gliding distance.