

### XIII.A. Emergency Approach and Landing

**About:** A simulated emergency landing occurs when the power is pulled, simulating a lost engine, and the pilot must run the checklist to attempt to restart the engine while properly configuring the airplane for an approach and landing usually in a nearby field.

**TSW:** Develop accuracy, judgement, planning, procedures, and confidence when little or no power is available

**How:** This is practiced by the student selecting a suitable landing field, making a power off glide to that field, and setting up for landing.

#### Procedures

1. Instructor pulls power to idle and declares simulated emergency landing
2. Pitch and trim from best glide (convert excess speed to distance/ altitude)
3. Select a landing area within gliding range. Keep all turns toward that area
4. **Floor to Door:** Restart procedures
  - a. Fuel selector both, mixture rich, carb heat on, primer locked, magneto's BOTH (simulate start)
  - b. Emergency checklist
5. **Door to Floor:** If engine does not restart: (simulate)
  - a. Primer Locked, Mags off, Master off, Carb heat on, Mixture IDLE, Fuel off
6. Squawk 7700, Tune 121.5 declare intentions
7. Check field size, terrain, and obstructions, keep field in sight at all times
8. Use flaps / Slip as required
9. Unlatch doors prior to touchdown
10. Touch down as slow as possible, in a full-stall attitude
11. Hold yoke fully back to keep nose wheel off the ground as long as possible

#### Discussion Points:

1. **Aviate, navigate, communicate**
2. Use any combination or normal glide maneuvers from wings level to spirals to eventually arrive at an appropriate altitude and location for the selected landing area.
3. To make the field utilize slips, flaps, and varying position of base leg.
4. Too much speed on landing is just as dangerous as too little.
5. Critical items to be checked: Fuel tank selector (try switching tanks), Fuel pressure gauge (Is it showing positive?), Mixture Rich, Carb heat on, Magnetos BOTH
6. Simulation is terminated once it is determined whether a safe landing could have been made.

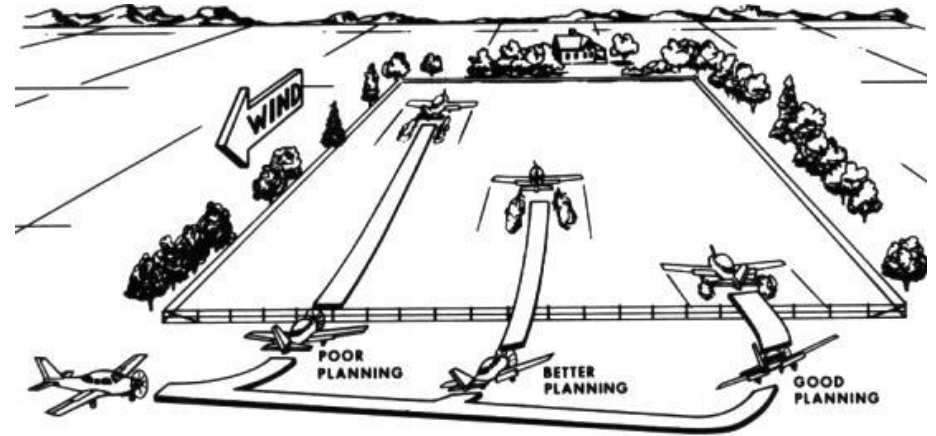


Figure 9-18 Plan the Turn onto Final Approach

#### Common errors:

7. Improper airspeed control
8. Poor judgment in the selection of an emergency landing area
9. Failure to estimate the approximate wind speed and direction
10. Failure to fly the most suitable pattern for existing situation
11. Failure to accomplish the emergency checklist
12. Undershooting or overshooting selected emergency landing area

#### Evaluations/ Standards:

13. Exhibits satisfactory knowledge of the elements related to emergency approach and landing approach
14. Analyzes the situation and selects an appropriate course of action
15. Establishes and maintains the **recommended best glide airspeed, +/-10 knots**
16. Selects a suitable landing area
17. Plans and follows a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions
18. Prepares for landing, or go-around, as specified by the examiner
19. Follows the appropriate checklist