Private Pilot Maneuvers Cheat Sheet

Normal Takeoff Procedure

Once cleared for takeoff

- Mixture – RICH
- Light switches – all ON
- Fuel pump – ON
- Align with centerline
- Note wind and adjust ailerons as necessary (Ailerons into the wind!)
- Heels on the ground (off the brakes!)
- Apply full power smoothly
- Maintain centerline with rudder
- Rotate at Vr and climb at Vy
- Climb checklist at safe altitude ~1000’ AGL

Slow Flight

- Pre-maneuver checklist:
    - Fuel pump – ON
    - Lights – ON
    - Mixture – RICH
    - Clearing turns
- Note altitude/heading and pick an outside reference point
- Reduce power to 1500-1700 RPM
- Maintain altitude by applying INCREASING back pressure
- Extend flaps once in the white arc
- Pitch for airspeed
- Power for altitude
- Maintain 50-55 knots
- Rudder/Power – as necessary to maintain heading/altitude
- Turns no more than 10° bank
- Recovery:
    - Power – FULL forward
    - Pitch – down to accelerate
    - Flaps – retract in increments
- Power-off stall:
    - Reduce power to 1500-1700 RPM
    - Establish stabilized descent while maintaining airspeed/heading, after 100' descent:
    - Power – IDLE
    - Induce the stall by pitching up, maintaining coordination and wings level
    - recover at full stall and call out "stall"
- Recovery:
    - Reduce angle of attack, pitching forward below the horizon
    - Power – FULL forward
    - Flaps - retract in increments
    - Climb to original cruise altitude

Power-off Stall

- Pre-maneuver checklist:
  - Fuel pump – ON
  - Lights – ON
  - Mixture – RICH
  - Clearing turns
- Note altitude/heading and pick an outside reference point
- Reduce power to 1500-1700 RPM
- Maintain altitude by applying INCREASING back pressure
- Extend flaps once in the white arc
- Pitch for airspeed
- Power for altitude
- Upon reaching 50-55 knots
- Establish stabilized descent while maintaining airspeed/heading, after 100’ descent:
- Power – IDLE
- Induce the stall by pitching up, maintaining coordination and wings level
- recover at full stall and call out “stall”
- Recovery:
  - Reduce angle of attack, pitching forward below the horizon
  - Power – FULL forward
  - Flaps - retract in increments
  - Climb to original cruise altitude

Power-on Stall

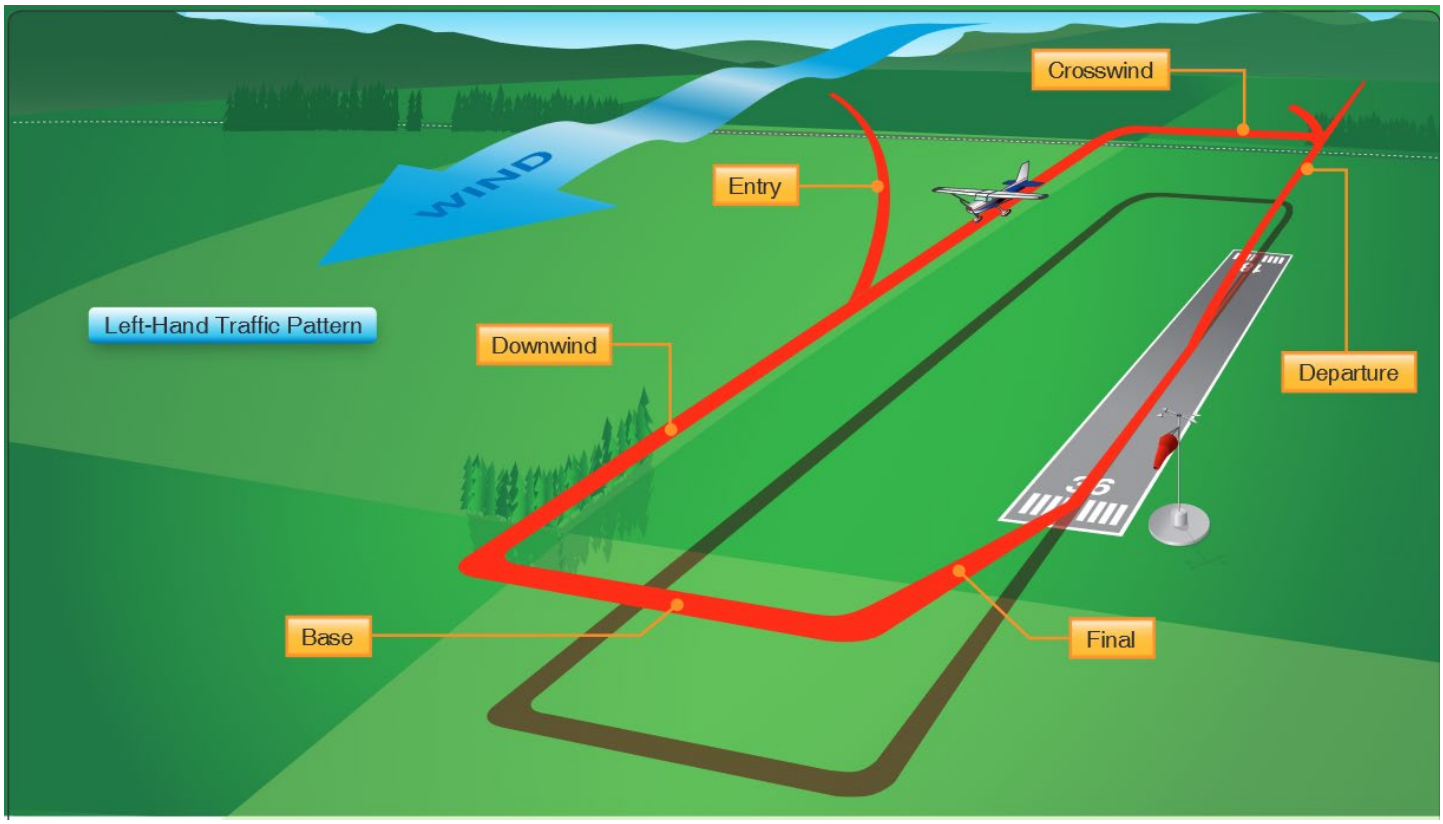
- Pre-maneuver checklist:
    - Fuel pump – ON
    - Lights – ON
    - Mixture – RICH
    - Clearing turns
- Note altitude/heading and pick an outside reference point
- Reduce power to 1500-1700 RPM
- Maintain altitude by applying INCREASING back pressure
- Slow to Vr and then:
- Power – FULL forward
- Pitch – up to induce stall
- Maintain coordination with rudder
- (If turn is requested, no more than 20° bank)
- recover at full stall and call out “stall”
- Recovery:
    - Reduce angle of attack, pitching forward below the horizon
    - Return to cruise configuration

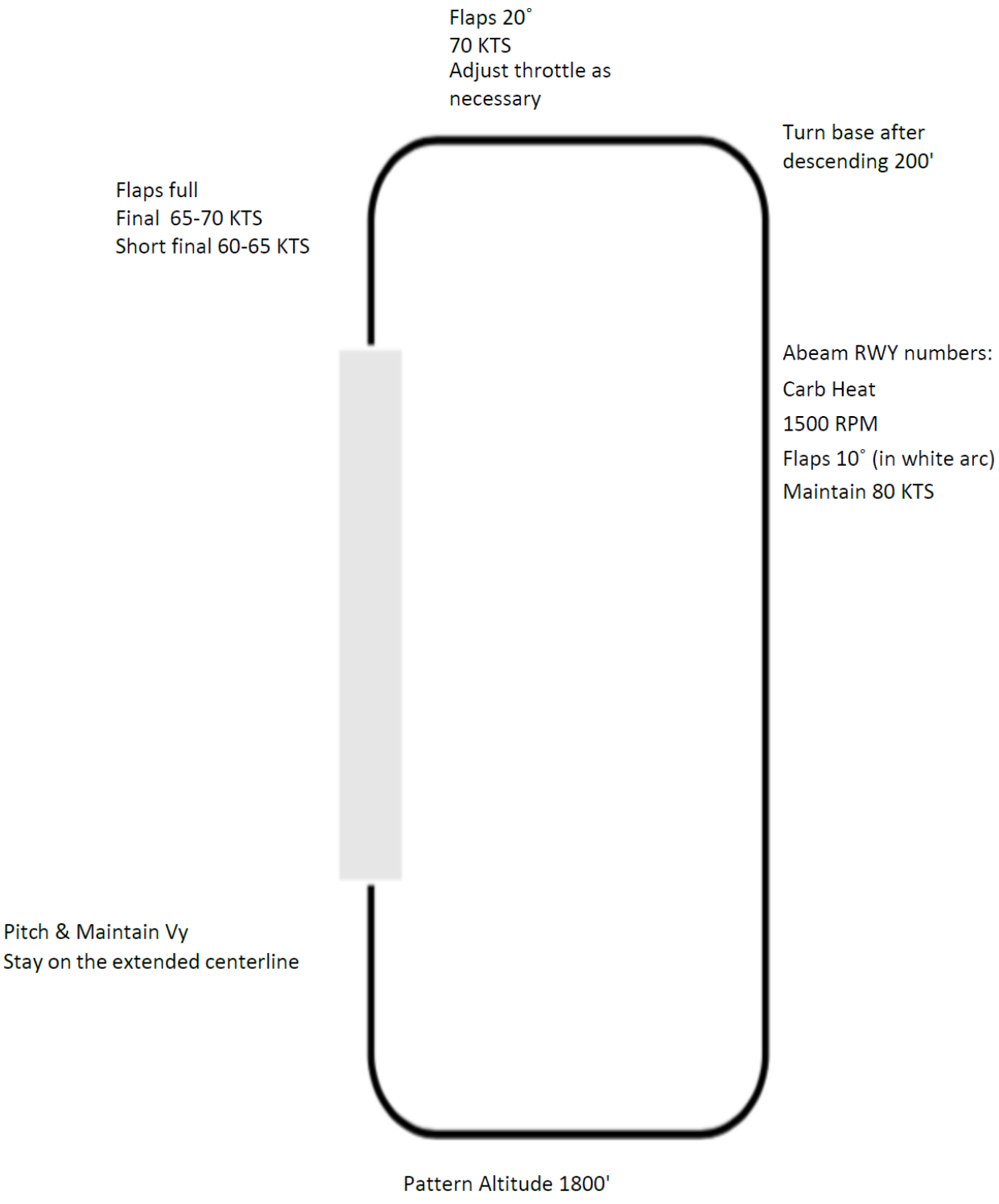
Engine-out Procedures

- Pitch and trim for best glide speed (Vg)
- Look for a place to land and stay close to it!
- Troubleshoot if altitude permits:
  C172:
  - Fuel selector – BOTH
  - Mixture – Rich
  - Carb Heat – ON
  - Magnetos – Both (attempt restart if prop not wind milling)
  - Master – ON
  - Primer – IN and LOCKED

  PA28:
  - Mixture – Rich
  - Fuel pump - ON
  - Carb Heat – ON
  - Master – ON
  - Primer – IN and LOCKED
  - Magnetos – Both (attempt restart if prop not wind milling)
  - Fuel selector – switch tanks
- Run through emergency checklist
- (If still no start) Declare EMG on 121.5 and squawk 7700
- Before landing, shut fuel sources off
  - Fuel selector – OFF
  - Magnetos – OFF
  - Mixture – CUTOFF
- Pop door(s) open
- Brace

Traffic pattern





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