

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 V_r and climb at V_y
- 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