

Commercial ACS Maneuvers (Cessna 172S) 1/16/2025

CHAPS = Clear area; Heading&Alt. estab'd¬ed; Position near emergency landing field; Set power & config.

STEEP TURNS	ACCELERATED STALL	SHORT FIELD TAKE OFF
CHAPS: (A) > 3000' AGL (S) 2100 RPM, Mix-Lean, 95kts Bank 50°, slight pitch up Add power to maintain speed Rudder - keep ball in center Roll out on original heading Repeat, opposite direction <i>Altitude +/- 100, Speed +/- 10, Bank +/- 5°, Heading +/- 10 on rollout</i>	CHAPS: (A) > 3000' AGL on recovery (S) 2000 RPM, Mix-Lean, 85kts Turn w/ 45° bank Increase back pressure until stall horn Recover at stall horn! <i>climb Vx or Vy to original altitude</i>	Use full runway length, flaps 10° Hold brakes, add full power Check Gauges, release brakes Climb @ 56 to agreed obstacle ht. Accelerate to Vy, flaps UP <i>Speed +5/-5</i>
SLOW FLIGHT	8's on PYLON	SHORT FIELD LANDING
CHAPS: (A) > 3000' AGL (S) 1500 RPM, Mix-Rich, Carb Ht. Hold atl. while slowing and... ...adding flaps Add power below Vy Slow to stall horn, then +5kts Power as needed to hold alt. <i>Altitude +/-50, Heading +/-10, Speed +5/0, Bank +/-5°</i>	Pick 2 "pylons", 1/2 mile apart Pylons should be perpendic. to wind CHAPS: (A) 900' AGL (S) 2200 RPM, Mix-Lean, 100Kts Enter 45° downwind, ~900' AGL Pivotal Alt.(670' at 87, 1100' at 113 kts) If pylon gets AHEAD of ref line, descend! If pylon gets BEHIND ref line, climb! Fly S&L 3-5 seconds between pylons <i>Max bank 40° Keep reference line on pylon</i>	ID touchdown target Approach 61 kts (+ gust factor) Aiming point 100-200 feet short Touchdown at or beyond target Lower nose, brake, retract flaps <i>Speed +5/-5 Land at or beyond, but within 100 ft.</i>
POWER OFF STALL	STEEP SPIRAL	SOFT FIELD TAKE OFF
CHAPS: (A) > 3000' AGL (S) 1500 RPM, Mix-Rich Slow to 65 Kts, holding alt... ...and adding full flaps Descend power-off at 65 kts Pitch up slowly for full-stall Acknowledge stall horn Continue pitch up for stall break Recover: (1) pitch down, full power, flaps 20° (2) Climb Vy, retract flaps gradually <i>Heading +/-10, Bank max 20° +/-5°</i>	Pick reference point (low and close) Determine wind direction Altitude - for 3 turns (4000') Power - Idle Speed - 70 kts +/- 10 Bank - steepest < 60° Bank - steepest downwind of point <i>Speed +/-10, Bank max 60°, >1500'</i>	Taxi without stop, 10° flaps Slowly add full power Keep tail low, balance on mains After liftoff, pitch down Accelerate Vx or Vy in gnd effect Climb at Vx or Vy, retract flaps <i>Speed +5/-5</i>
POWER ON STALL	CHANDELLE	SOFT FIELD LANDING
CHAPS: (A) > 3000' AGL (S) 1500 RPM, Mix-Rich Slow to Vx (62 kts), holding alt. Add >65% power Pitch up gradually for full-stall Acknowledge stall horn Continue pitch up until stall break Recover: (1) pitch down, full power (2) Climb Vy, retract flaps above 70kts <i>Heading +/-10°, Bank max 20° +/-10°</i>	CHAPS: (H) Pick reference on wingtip (S) 2100 RPM, Mix-rich, 95kts Bank 30°, Power - FULL Pitch - slowly increase to 15° After 90°, Hold pitch, reduce bank After 180°, speed just above stall Hold altitude, accelerate to cruise <i>Rollout +/-10°, Speed near stall</i>	Approach 65 kts(+ gust factor) Smooth roundout & flare Add power if necessary for soft ldg Hold nose high, minimal brakes <i>Speed +5/-5</i>
	LAZY EIGHT	POWER-OFF 180 APPROACH
	CHAPS: (H) Pick reference on wingtip (S) 2100 RPM, Mix-rich, 95kts Gentle Pitch and Bank changes! At 45°: Max pitch up, 15° bank At 90°: Zero pitch, 30° bank At 135°: Max pitch down, 15°. bank At 180°: pitch and bank level Repeat other direction <i>Speed at 90°, about 60 kts After 180°, +/-100 feet, +/- 10 kts</i>	ID touchdown target Power - IDLE, downwind abeam Speed - best glide or as required Short final - 61 kts (+ gust factor) Aiming point 100-200 feet short Touchdown at or beyond target <i>Land at or beyond, but within 200 ft.</i>
	GO AROUND	
	Full power, Flaps 20° Pitch up for Vy Offset to side of runway (if traffic) Retract Flaps > 60 kts Radio - report going around <i>Speed Vy +5/-5</i>	