

Commercial ACS Maneuvers (Cessna 172S)

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>	