Cessna 172 CFI Maneuver Setup: Clearing Turns, Mixture RICH, Fuel Selector BOTH, Carb Heat on if lower than the RPM Green Arc

Slow Flight

- 1500RPM
- Flaps to 20deg, then 2100RPM
- Slow to just above stall +5/-0kts
- Adjust power to maintain altitude +/- 50 ft
- Heading +/- 10 deg
- Climb and descend at constant airspeed

Power Off Stall

- From Slow Flight, descent at 500ft/ min
- Throttle to idle, recover at first buffet
- Private would be to full stall
- Pitch, Power, Clean-Up
- Maintain Heading +/-10degs

Power ON Stall (Gear up & down)

- 1500RPM
- Flaps zero
- Slow to 65kts, Throttle to 2100
- Slowly increase pitch to first buffet
- Pitch, Power, Clean up
- One while maintaining heading +/-10degs
- One while in a 20deg turn.

Accelerated Stall

- Completed above 3000' AGL
- 1600rpm
- Bank 45deg
- Maintain or Increase altitude
- Recover on first buffet
- Level wings, Pitch, Power, Clean up

Trim Stall

- 1400RPM
- Trim all the way back
- Throttle to idle
- Establish 65kts without resetting trim
- Full throttle, release pressure on yoke
- Nose will rise
- Recover first buffet
- Pitch, Power, Clean up, Adjust trim

Secondary Stall

- Set up for trim stall
- When recovering from trim stall let a second stall happen by pitching up after first recovery.
- Recover first buffet
- Pitch, Power, Clean up, Adjust trim

Cross Controlled Stall

- 1400RPM
- Flaps Up, trim for 65kts
- Left turn for Final (use a road)
- Apply left rudder as in overshoot
- Don't let bank exceed 20deg
- Left Rudder, 20 deg bank, pitch up
- Recover on first buffet
- Wings level, pitch, power, cleanup

Steep Turn

- 2200RPM
- Must be below VA 97Kts
- Airspeed +/- 10kt
- Bank 50 deg +/- 5°
- Maintain Altitude +/-100 ft
- Rollout +/- 10 degs

Lazy Eights

- 2200RPM
- Turn 5deg left, slowly increase pitch
- 45deg pt: Max pitch up and 15deg bank,, 75MPH
- 90deg pt: Pitch level, 30 deg bank
- 135deg pt: Max pitch down, 15deg bank
- 180deg pt: Level pitch and bank,
- starting altitude +/- 100 ft
- Heading +/- 10 deg
- Repeat to the right.

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Emergency Descent

- Throttle idle
- Bank 45 deg bank
- Pitch down for just below Va
- Recover at 1500 ft AGL

Chandelles

- Full throttle
- Bank 30deg
- Power FULL
- Slowly increase pitch
- Max Pitch 15 deg at 90deg Pt then
- Hold Pitch to 180 deg pt while
- Slowly decreasing bank

Remember: Half pitch up at 45deg pt and 15 deg bank at 135 deg pt

Simulated Engine Out

- Climb to 3000ft AGL or above
- Throttle to Idle
- **A**irspeed Best Glide
- **B**est Place to Land (in 15 seconds)
- **C**hecklist
- Verify best place to land into the wind
- Recover before 500ft AGL if not over a runway

Sturns

- Throttle to 2200RPM
- Enter on downwind
- Radius 1/2mile
- Tailwind: Steeper bank
- Headwind: Shallower bank
- Pick five points on the Sturn to help maintain correct radius
- Maintain Altitude +/-100 ft

Turns Around a Point

- Throttle to 2200RPM
- Enter on downwind
- Radius 1/2mile
- Tailwind: Steeper bank
- Headwind: Shallower bank
- Pick four points on the Turn to help maintain correct radius
- Maintain Altitude +/- 100ft

Checklist for Simulated Engine Out

- Fuel Selector BOTH
- Mixture Rich
- Carb Heat ON
- Check Mags
- Squawk 7700
- Call ATC, use 121.5 if needed.

Steep Spiral

- Throttle to idle
- Airspeed best glide
- Spiral over the landing point with a bank angle from zero to 45deg
- Shoot for abeam the landing point 1000ft agl

Eights on Pylons

- Throttle to 2200RPM
- Calculate Pivotal Altitude 800ft
- Enter on downwind
- Tailwind: Rising altitude
- Headwind: Decreasing altitude
- Maintain Pylon on rivet line

180deg pwr off accuracy landing

- Throttle 2200rpm on downwind
- Abeam landing pt:
- Throttle to idle, best glide speed
- Use flaps as needed to land on the landing point -0/+200ft

Short Field Landing

- On Final, Airspeed 55-60kts
- Flaps 40deg
- Power for altitude, Pitch for airspeed

Cessna 172N Before Landing: Mixture Rich, Fuel on both, carb heat ON midfield downwind, seatbelts on.

Short Field Takeoff

- Flaps 10degs, Full Brakes, Full Power, Release brakes
- Climb at Vx,
- Gear up at positive climb rate
- Once clear of obstacle, Flaps up
- Climb at Vy

Soft Field Takeoff

- Flaps 10degs,
- Yoke back during taxi
- Add Full Power on runway
- Hold nose so shock absorber is fully extended
- Rotate at the bottom of the green arc
- Stay in ground effect until Vx
- Climb at Vx, Gear up at positive rate
- Once clear of obstacle, Flaps up slowly
- Climb at Vy

Soft Field Landing

On Final

- Airspeed 60-65kts
- Flaps 30deg
- Power for altitude, Pitch for airspeed
- Hold nose up as long as possible
- Yoke back full until cleared from runway

Loss of Oil Pressure

- Is it the gauge?
- Does the engine run fine? Cool?
- Climb as you determine what to do.
- Land at nearest airport.
- Prepare for an off airport landing if engine quits or vibrates excessively.

Alternator Failure

- Reduce Electrical Load
- Check Alternator CB's
- ALT switch OFF for 10 seconds, then ON
- If Ammeter still zero, turn off ALT sw
- Maintain minimum elec load
- Land as soon as practical at an airport

High Oil Temp

- Increase Mixture
- Increase speed without power increase
- Land at nearest airport

Spins

- Throttle IDLE, Ailerons neutral
- Rudder OPPOSITE of rotation
- Yoke Forward
- Rudder neutral when rotation stops
- Yoke adjusted for level flight

Open Door

- Close below 70kts
- Cabin Vents Closed
- Window open
- Open door and try to re-close
- Best option is probably to land and close door

Engine Fire

- Fuel Selector OFF
- Throttle Closed, Mixture Cut Off
- Heater/Defroster OFF
- Emergency descent
- Land Immediately

Electrical Fire

- Master sw OFF
- Vents OPEN
- Heat OFF
- Land at nearest airport
- Prepare for off field landing if needed

Airspeeds

Vrot: 55 kts
Vx: 59 kts
Vy: 73 kts
Va: 89 kts
Vfe: 85 kts