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 30deg, then 2100RPM
- Slow to just above stall +5/-0kts
- Adjust power to maintain altitude +/- _____ ft
- Climb and descend at constant airspeed

Power Off Stall

- From Slow Flight, descent at 500ft/min and 65kts
- 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 2100rpm
- Slowly increase pitch to first buffet
- Pitch, Power, Clean up
- One while maintaining heading +/-10degs
- One while in a 20deg turn.

Accelerated Stall

- 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 30deg, trim for 65kts
- Left turn for Final
- Apply left rudder slowly
- 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
- Bank 50 deg +/- ____
- Maintain Altitude +/-____ ft

Rollout +/- ____ 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 +/- ____ ft
- Heading +/-____deg
- Repeat to the right.

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Emergency Descent

- Throttle idle
- Bank 45 deg bank, flaps 0deg
- Pitch down for just below Va
- Recover at _____ ft

Chandelles

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

Remember: 8deg pitch at 45deg pt and 15 deg bank at 135 deg pt

Simulated Engine Out

- Climb to 3000ft AGL or above
- Throttle to Idle
- <u>A</u>irspeed Best Glide
- <u>Best Place to Land (in 15 seconds)</u>
- <u>Checklist</u>
- Verify best place to land into the wind
- Recover before 500ft AGL if not over a runway

<u>Sturns</u>

- 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 _____ 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 _____ ft

Checklist for Simulated Engine Out

- Fuel Selector BOTH
- Mixture Rich
- Carb Heat ON
- Check Mags
- Squawk ___00
- 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 _____ft
- 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/+____ft

Short Field Landing

- On Final, Airspeed 53-60kts
- Flaps 40deg on short final
- Power for altitude, Pitch for airspeed

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

Short Field Takeoff

- Flaps Odegs, 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 but nose is not off the gnd
- Rotate at the bottom of the green arc
- Stay in ground effect until Vx
- Climb at Vx
- Once clear of obstacle, Flaps up slowly
- Climb at Vy

Soft Field Landing

On Final

- Airspeed 60-65kts
- Flaps 30deg, set pwr for 1300rpm
- 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: _____kts Vx: _____kts Vy: _____kts Va: _____kts
 - Vfe: _____kts