

C-172 PROCEDURES GUIDE

SHORT FIELD TAKE-OFF

1. Flaps - 10 degrees
2. Use all available runway
3. Set trim
4. Hold brakes
5. Apply full power/check engine instruments
6. Brake release/rotate at 51 kts
7. Climb V_x - 56 kts until obstacle is cleared / 60 kts then flaps up

SOFT FIELD TAKE-OFF

1. Flaps - 10 degrees
2. Full aft elevator while taxiing and during initial takeoff roll
3. As nose wheel lifts off, reduce elevator slightly to avoid tail striking ground
4. As aircraft becomes airborne, level off in ground effect to accelerate to V_x, then normal climb out

STEEP TURNS

1. Clear Area
2. Mixture - set
3. Power - 2400 RPM
4. Bank-IR-45 degrees

Note: Engine instruments and systems should be monitored during these maneuvers.

CLEARING TURNS

Clearing turns to precede each maneuver requiring pitch changes such as slow flight and stalls.

Procedure

1. Visually clear area in direction of first turn and lift wing to check for traffic (check blind spot)
2. Commence **first turn using 30 degrees of bank and check mixture rich during turn.**
3. Commence **second turn and pull carb. heat on and reduce power for desired airspeed.**

Note: Clearing turns consist of **two separate 90 degree turns in the same or opposite directions** with emphasis on collision avoidance. Maintain altitude during clearing turns.

SLOW FLIGHT

Entry-

1. Throttle As required for airspeed requested
2. Flaps As required

Recovery-

1. Power Apply Full power
2. Pitch Decrease
3. Maintain Heading & Altitude during recovery.

STALLS

Note: Stalls may have variations in execution which your instructor will dictate
(i.e. imminent, full, or turning stalls)

TAKE-OFF AND DEPARTURE STALL

Entry-

1. Mixture Rich
2. Flaps Retracted
3. Altitude Maintain until reaching 55 KIAS
4. Throttle Increase to full power
5. Carb Heat Off
6. Bank As requested*
..... *(15 - 20 degrees)
7. Pitch Attitude Increase until stall occurs

Recovery-

1. Pitch attitude Decrease
2. Throttle Full Power
3. Bank Wings Level
4. Pitch attitude Establish Vx/Vy climb
5. Return to straight & level flight/cruise checklist

APPROACH TO LANDING STALL

Entry:

1. Mixture Full Rich
2. Flaps Extend below 85 KIAS
3. Altitude Maintain until reaching 60 KIAS
..... then establish normal descent configuration
4. Power Idle
5. Bank As requested
6. Pitch Attitude Increase gradually until stall occurs

Recovery-

1. Pitch/Bank Decrease and level wings
2. Throttle Full Power
3. Carb Heat Cold
4. Flaps Retract 10 degrees at a time
5. Pitch Establish Vx/Vy climb
6. Return to straight and level flight/cruise checklist

NORMAL APPROACH AND LANDING

1. 45 degrees to downwind - 2200 RPM/Prelanding checklist
2. Mixture - rich
3. Midfield downwind - carb heat ON
4. Abeam threshold, 1500 RPM
below 110 kts/10 degrees flaps
5. Base Leg - 20 degrees flaps/70 kts
4. Final approach - 30 degrees flaps/60 kts

(On a normal approach **power controls airspeed/pitch controls glide path**/there are exceptions to this rule that you should discuss with your flight instructor)

SHORT FIELD LANDING

1. Base Leg 60 to 65 kts / Full flaps
1. Final Approach speed - 56 kts
2. Glide path - just high enough to clear obstacle at approach end of runway
3. Flare - minimum float
4. After touchdown
 - a. Flaps up
 - b. Maximum braking
 - c. Control wheel full aft

SOFT FIELD LANDING

1. Normal approach configuration
2. During flare - maintain nose high attitude
3. **Add power** during flare **before touchdown** to keep elevator effective to help keep weight off nosewheel.
4. During rollout, power to idle and gradually increase back elevator to keep weight off nosewheel
5. No braking during roll out.

GO AROUND

1. Throttle to full power while simultaneously pitching up to climb at V_x/V_y attitude
2. Retract flaps 10 degrees at a time to maintain positive rate of climb
3. Climb at $V_x - 60$ kts / $V_y - 76$ kts