Cessna 172SP Maneuvers --- Quick Reference Sheet

Slow Flight

1. Clearing turn at or above 1500 feet AGL (3,000 MSL+)
2. Power to 1500 • flaps 10° (below 110 kts.)
3. Increase pitch to maintain altitude as airspeed decreases - TRIM
4. Extend full flaps (in white arc)
5. Upon reaching 50 kts increase power to maintain level flight approx 2000 rpm
6. Maintain coordinated flight (increased right rudder at low speed and high power setting)
7. Perform straight and level, and turns (20° bank angle or less)
8. Use power to maintain altitude and pitch to maintain airspeed

Recovery

1. Apply full power, flaps 20°, reduce pitch to maintain altitude - TRIM
2. Retract flaps to 10° accelerating through 55 kts - TRIM
3. Retract flaps to 0° accelerating through 60 kts - TRIM
4. Accelerate to normal cruise or as specified and reduce power as necessary.

Power Off Stall (Approach to landing Stall)

1. Clearing turn at or above 1500 feet AGL (3,000 MSL+)
2. Reduce Power to 1800 RPM
3. Extend full flaps (below 110 for 10 flaps, below 85 for 20 & 30 flaps)
4. Establish 1500rpm/70 KIAS descent
5. Power set to idle
6. Apply back pressure to maintain altitude
7. Announce “imminent stall” at stall warning horn.
8. Announce “stall” when stall occurs

Recovery

1. Reduce pitch, full power, wings level with coordinated rudder and aileron

2 Retract flaps to 20° establish climb pitch attitude

3 Retract flaps to 10° accelerating through 55 kts TRIM

4. Retract flaps to 0° accelerating through 60 kts TRIM
5. Stabilize climb out at Vy (74 kts.)
6. Level off as briefed

Power On Stall (Departure Stall)

1. Clearing turn at or above 1500 feet AGL (3,000 MSL+)

2. Slow to rotation speed 55kts

3. Add power to 2000 rpm

4. Smoothly increase the pitch to induce stall.

5. Announce “imminent stall” at stall warning horn

6. Announce “stall” when stall occurs

Recovery

1. Full power, reduce pitch then establish Vy pitch attitude

2. Accelerate to and maintain Vy 74 kts

3. Level off as briefed

Steep Turns

1 Note heading (outside visual reference point) and altitude

2. Establish airspeed at 95 kts approx 2300 rpm

3. Roll into a 45° bank turn

4. Increase back pressure and power to maintain altitude and airspeed

5. Continuous scan (out front, VSI, altimeter, airspeed indicator)

6. Lead rollout for heading by approx 20°

7. Reduce power and pitch as necessary to maintain altitude and airspeed (95 kts)

Turns Around a Point

1. Clearing turn, emergency landing spot, 600’-1,000’AGL

2. Enter downwind at 90 kts approx. 2300 rpm

3. When point is under wing, begin left turn of approx. 30°* (steepest bank)

4. At crosswind, reduce the bank to compensate for decreasing tailwind

5. At upwind, bank will be shallowest due to slowest groundspeed

6. At crosswind, increase bank to maintain equidistance from ref. point

7. Complete two circuits Altitude +/-100’ A/S +/-10 Kts. Hdg. +/-10°

*The maximum and minimum bank angles will vary according to wind speed

and distance from the point

S Turns

1. Clearing turn, emergency landing spot, 600'-1,000'AGL

2. Enter maneuver downwind stabilized at 90 kts approx. 2300 rpm

3. When reference line is under wing, roll into left turn (steepest bank)

4. As you turn past the 90° point, reduce bank to track a symm. half circle

5. Cross the 180° point with wings level and parallel with reference line

6. Repeat 1-4 but in a right turn. Altitude +100' A/S +10 Kts.

Short Field Takeoff and Landing

Takeoff (10° Flaps)

1. Taxi onto runway centerline (use all available runway)

2. Hold brakes

3. Apply full power

4. Release brakes

5. Announce (engine instruments checked) (RPM and Oil Gauge)

6. Announce "airspeed alive"

7. Accelerate to Vr (55 kts) and rotate

8. Climb at Vx (56 kts) until obstacle is cleared

9. Announce "obstacles cleared" pitch for Vy, retract flaps above 62 kts,

10. Continue climb at Vy (74 kts)

Landing

1. Select runway touchdown point

2. Abeam touchdown point (power 1500rpm, 10° flaps-below 110 kts)

3. Pitch for 80 kts.

4. When touchdown point is 45° off shoulder turn base.

5. Apply 20° flaps and pitch for 70 kts.

6. Turn final, extend 30° flaps, and pitch for 61 kts.

7. Smoothly reduce power so as to land on the selected point on the runway

(must be at or beyond specified point, within 200 feet)

8. Upon landing, retract all flaps, apply maximum braking (no tire skid), full

back pressure on yoke

Soft Field Takeoff and Landing

Takeoff (10° Flaps)

1. Taxi onto runway centerline with yoke in full aft position

2. No brakes, keep rolling and smoothly apply full power

3. Announce (engine instruments checked)

4. Reduce back pressure to allow nose wheel to remain 2 inches off ground

5. Announce “airspeed alive”

6. When airborne, lower nose in order to remain in ground effect

7. No obstacle - accelerate to 56 kts, pitch for Vy, retract flaps above 62 kts,

Continue climb at Vy (74 kts)

8. Obstacle – accelerate to and climb at Vx-56 kts until clear of obstacle

9. Announce “obstacles cleared” pitch for Vy, retract flaps above 62 kts,

Continue climb at Vy (74 kts)

Landing

1. Abeam touchdown point (power 1500rpm, 10° flaps-under 110 kts)

2. Pitch for 80 kts.

3. When touchdown point is 45° off shoulder turn base.

4. Extend 20° flaps and pitch for 75 kts.

5. Turn final, extend 30° flaps, and pitch for 65 kts

6. Approaching touchdown, begin flare, using power to minimize sink rate

and touchdown as gently as possible

7. Apply full back pressure on yoke to keep weight off nose wheel.

9. Keep flaps down, use aerodynamic braking only

Go Around

1. Throttle – Full open

2. Wing Flaps- retract to 20

3. Climb speed 60 kts

4. Wing Flaps retract to 10

Reference Air speeds/KIAS

Vr 55 Vno 129 Vso 40 Vs1 48

Vx 56 Vne 163 Va 105 @ max weight

Vy 74 Vfe 85 Best Glide 70kts