

Comanche PA30 Airwork Procedures

Steep turns (± 100 feet and min 3000agl min)

- Two 90 degrees clearing turns
- Mixtures Rich Below 5000feet
- Power 15" to slow down to maneuvering speed, 150mph at our weight
- 50° of bank
- Use 18" to maintain airspeed
- Execute a 360° in each direction

Slow flight clean (± 50 feet and 3000agl min)

- Two 90 degrees clearing turns
- Power to 15" to slow down
- Propellers full forward once slowed down to below 125mph
- Mixtures Rich Below 5000feet
- Cowl Flaps Open
- Adjust Power to Maintain 90mph

- Once done with slow maneuvering
- Verify props full forward
- Throttle 25" to accelerate
- Go back to cruise, 20/23"
- Cowl Flaps Closed

Slow flight dirty (± 50 feet and 3000agl min)

- Two 90 degrees clearing turns
- Power to 15" to slow down below max gear speed (try to slow down more to minimize wear)
- Gear down
- Flaps 15° when in white arc
- Propellers full forward once slowed down to below 125mph
- Mixtures Rich Below 5000feet
- Full flaps
- Cowl flaps open
- Maintain 85mph

- Once done with slow maneuvering
- Verify props full forward
- Throttle 25" to accelerate
- Gear up
- Accelerate to Vy 112mph
- Flaps up
- Cowl flaps closed
- Go back to cruise, 20/23"

Power on stalls (min 5000agl and max 21rpm power)

- Two 90 degrees clearing turns
- Power back to 15"
- Propellers full forward once slowed down to below 125mph
- Mixtures Rich Below 5000feet
- Open cowl flaps
- Pull back manifold pressure until rpms indicate 2100)
- Slowly bring nose up
- Recover at first indication of of a stall (stall horn, buffet...)
- Verify props forward, full power to re accelerate
- Cowl flaps closed
- Go back to cruise

Power off stalls (min 5000agl)

- Two 90 degrees clearing turns
- Power to 15" to slow down below max gear speed (try to slow down more to minimize wear)
- Gear down
- Flaps 15° when in white arc
- Propellers full forward once slowed down to below 125mph
- Mixtures Rich Below 5000feet
- Full flaps
- Cowl flaps open
- Power back to 12" inches of MP
- Establish descent, trim airplane
- Slowly bring nose up, Throttles back to Idle
- Recover at first indication of of a stall (stall horn, buffet...)
- Verify props forward, full power to re accelerate
- Establish positive rate of climb (verified by positive roc in VSI and climb in altimeter)
- Gear up (amber light when up)
- Climb out at Vy 112mph
- Flaps up
- Cowl flaps closed
- Go back to cruise

Accelerated stalls (min 5000agl min)

- Two 90 degrees clearing turns
- Power to 13" to slow down
- Propellers full forward once slowed down to below 125mph
- Mixtures Rich Below 5000feet
- 45° of bank
- Smoothly increase back elevator pressure
- Recover at first indication of of a stall (stall horn, buffet...)
- Verify props forward, full power to re accelerate
- Cowl flaps closed
- Go back to cruise

Simulated single engine landings

- Simulated zero thrust is 10" 2200rpm
- Complete engine shutdown and securing checklist
- GUMPS
- Airspeed blue line 105mph
- No more than flaps 15degrees (use no flaps if needed)
- Touch down on 1/3 of available runway

Emergency Descent Refer to Piper Comanche Quick Reference Handbook

- Page 1-5

Systems and Equipment Malfunctions Refer to Piper Comanche Quick Reference Handbook

Engine Failure During Takeoff Before Vmc Refer to Piper Comanche Quick Reference Handbook

- Page 2-2

Engine Failure After Liftoff Refer to Piper Comanche Quick Reference Handbook

- Page 2-3
- If more than 1000 feet AGL then Page 2-5

Approach and Landing with an Inoperative Engine Refer to Piper Comanche Quick Reference Handbook

- Page 8-2

Maneuvering with One Engine Inoperative Refer to Piper Comanche Quick Reference Handbook

ABOVE 5000feet AGL

- Shutdown Page 2-10
- Restart Page 2-12

Vmc Demonstration Refer to Piper Comanche Quick Reference Handbook

Minimum altitude 3500 feet

- Two 90 degrees clearing turns
- Power to 15" to slow down
- Propellers full forward once slowed down to below 125mph
- Mixtures Rich Below 5000feet
- Flaps UP
- Cowl flaps open
- Trim set for Take Off
- Right Engine 20"
- Left Engine Idle
- Right Engine Full Throttles
- 5 degrees bank into good engine
- Increase pitch to reduce speed at 1kt per second
- Apply rudder pressure to maintain directional control until full rudder is applied
- Recognize indications of loss of directional control, stall warning or buffet
- Recover promptly by simultaneously reducing power power sufficiently on the operating engine while decreasing the angle of attack as necessary to regain airspeed and directional control.
- Recover within 20 degrees of entry heading
- Advance power smoothly on the operating engine and accelerate to Vyse 105mph

Instrument Approach Power Setting

Approaches flown at 120mph

- ILS (straight in)
 - Two engines: 15"MP Gear down at GS intercept, Approach flaps if desired
 - One engine: 20"MP Gear down at GS intercept, NO FLAPS
 - Non Precision
 - Two engines: 15"MP/20"MP Gear down at Final Fix, Approach flaps if desired
 - One engine: 16"MP/25"MP Gear down at Final Fix if Straight In, NO FLAPS
- One engine circle to land: 12"MP/20"MP Gear and Flaps UP

if single engine approach is a circle to land, the gear will remain up until you are in a position to start a normal descent to landing, do not use more than ½ flaps on final 25" When leveling off to maintain 120mph with the gear down and no flaps