

1. Takeoff

Use 1 notch of flaps for normal takeoffs (no-flap takeoff is OK too).

Flaps should be retracted once above tree-top level.

Use Full Power on takeoff. Aileron into wind (full-lock if wind strong or gusty)

Use right rudder to correct for left-turning tendency during takeoff roll.

Lift nose at 55 to 60K. Stay on runway centerline.

Right Hand should be kept on throttle during climbout to ensure full-throttle throughout.

2. Climbout

At 75 to 80K (Vy is 79K)

Above tree-tops, check flaps up.

Turn crosswind at about 500' AGL (1000' on altimeter at 0G7).

Aux pump OFF on entry to crosswind turn.

Brief wings level on crosswind to look for traffic to right.

Standard rate turns to crosswind and crosswind-to-downwind if still climbing.

3. Downwind

Altitude between 800' to 1000' AGL (1300' to 1500' MSL at 0G7)

Level off with nose down and immediate power reduction to 2100 RPM (yields about 90K)

Three licks of nose down trim on level off will give an approximate trim setting

Check carburetor heat midway down field----refine level flight trim setting

If momentary roughness on carb heat check, leave carb. Heat On for approach

HOLD ALTITUDE on downwind! Do NOT climb or descend.

Key Point (abeam the numbers):

Aux Pump ON

Throttle to 1500 RPM

Slow to 70 Knots with up elevator -while holding pattern altitude- important!

Three licks of nose up trim on trim wheel

Two notches of flaps (use 1 notch if heavy or if pattern will be extended)

Let plane descend at trimmed speed (70K)

(Don't try to set pitch attitude with trim. Hold the nose at level flight attitude with elevator on power reduction to bleed off speed and then trim off control pressures.)

4. Turn to Base

For runway 19, turn abeam Bob Pfeif's house (large red garage); For Runway 01 turn base between the two big farmyards.

Bank angle of about 30 deg. for turn to Base—shallower turns take up too much time & space
Square off pattern and turn to fly Base 90 deg. to runway (not hedgerows).

5. Base Leg

Hold trimmed speed (70 Knots), be consistent

Judge height relative to runway and whether high or low...goal here is to be slightly high

If slightly high, add second notch of flaps (if not already down) and retrim as needed

If still too high, start reducing power

If really high, consider adding third notch of flaps

If low, do not add flaps and consider power increase. DO NOT RAISE NOSE TO STRETCH GLIDE

Retrim as necessary

Consider effect of crosswind component when planning turn to Final.

6. Final Approach

Slow to 63K if not there already...Retrim as needed (strive for "hands-off trim" at 63)

Mentally prepare to make go-around (the earlier the better) if approach is going wrong or something (deer, coyotes, turkeys, or mowers at 0G7) appears on runway.

If still too high, add third notch of flaps.

Reduce power incrementally as necessary to hold desired landing point in windshield (don't wait too long to do this)

Power to idle when the field is made (don't carry power into flare unknowingly)

Small changes in power made early are much easier to handle than large changes made late.

IF AIR SMOOTH AND WINDS LIGHT, slow to 60K (but no lower) crossing rwy threshold.

Airspeed is needed to break off the descent during the flare

7. Flare

Break most off the approach descent off with elevator 15-20' above the ground

Then, iteratively, let the descent increase a bit, then counter it with up elevator just enough to slow but not stop the descent...repeating this until touchdown.

Touchdown on mains with nose high...Avoid the temptation to land flat.

Counter a bounce or balloon with slight addition of power...or go around

8. Rollout

Make sure plane is aligned with runway before touchdown. If not, straighten plane with rudder and counter any sideways drift with aileron against the drift.

After touchdown, center rudder (and nosewheel) before lowering nose to avoid darting around on runway. TURN FULL-LOCK AILERON INTO WIND if there's any crosswind.

Land on runway centerline, keep airplane straight with rudder

Good runway alignment during final approach makes transition to ground operation easier.

Raise flaps as soon as able. Apply brakes and brake hard if short field (don't skid tires).

9. Crosswind approach

Fly a longer final giving more time to get lined up. If you've mis-planned the pattern and arrived at the rwy threshold without a reasonably long, straight final; make a go-around. You need Final to get aligned and dope out the crosswind.

After turning Final, first establish a crab that holds the rwy centerline against the crosswind.

Then gradually transition from the crab to a wing-low sideslip while holding centerline.

Carry the slip down to the runway carefully balancing the slip against the crosswind.

In the flare, take care not to raise the upwind wing above wings level.

Upwind wing should be either low (to counter the crosswind) or level (if crosswind abates).

Use downwind rudder as needed to maintain alignment with the runway

*70K on Base Leg isn't magic. Base can be flown at 65 to 75K, but you must trim the airplane and be consistent with your speeds. Otherwise your glide path high/low judgment will be inaccurate. Once on final, you MUST slow to 63K and retrim for 63K as higher speeds are too fast for good landings.

Trimming Tips

Do not use trim to set airplane pitch attitude. Set the attitude with elevator and use trim to relieve the control pressure **while holding the pitch attitude where you want it.**

Always retrim the aircraft ASAP after an attitude, configuration or performance change.

If you're pulling back on the elevator to raise the nose and want to trim off the control pressures, rotate the trim wheel backward (toward tail).

If you're pushing forward on the elevator to lower the nose and want to trim off the control pressures, rotate the trim wheel forward (toward nose).

With 15 to 20# wt. in the baggage compartment, 5JM will make 'squeaker' landings if the pilot does his part to land nose high.