

FLIGHT TRAINING SUPPLEMENT – SIDE SLIP

For maneuvering the plane left or right while maintaining longitudinal axis direction

Pick a reference point straight ahead. I.e. A power line or the far end of the runway

It is important that the longitudinal axis of the aircraft remain pointed directly at the reference point

Establish a glide below 70 with flap your desecration. For strong crosswind 0 to 1 flap is suggested for stability.

Apply aileron to establish a drift in the desired direction. As little as 2 degrees change in bank could be enough to change the direction of drift. It could take much more in a strong wind.

Allow the adverse yaw to maintain the direction of the nose during the roll in.

Apply opposite rudder as needed to keep the nose from moving off the longitudinal axis reference point.

This maneuver is designed to make the horizontal component of lift drift the airplane left or right in reference to the runway centerline, without changing the direction of the nose.

This is the most effective way to land in a crosswind and it keeps the mass of the Aircraft moving down the runway with the wheels pointed in the direction that they like to roll. It is okay to land on the left or right tire first. If landing, increase the aileron input during the rollout as needed to keep the windward wing down.

Recovery

Remove all Aileron input

Remove all rudder input

Return the Aircraft to coordinated flight with the nose directly pointed at the reference point.

FLIGHT TRAINING SUPPLEMENT – GLIDING

The aircraft can glide well with the engine in idle or switched off. Best glide ratios are achieved within an indicated airspeed of 63 to 75 mph (55 to 65 kts). These speeds will establish a glide ratio between 1:12 to 1:15 with the flaps retracted (0 position).

FLIGHT TRAINING SUPPLEMENT - DESCENT

When descending from level flight it is important to watch engine temperatures. During descent, the temperatures will decrease, which could cause engine failures. So it is strongly recommended not to exceed the lower limits of these temperatures.

FLIGHT TRAINING SUPPLEMENT – NORMAL LANDING

Establish downwind at pattern altitude at a mid cruise speed i.e. 4500 to 4900 rpm

Abeam the touch down spot reduce power to idle

Compensate with the rudder for the change in torque.

Trim the nose up to the 70 mph glide position and allow the nose to rise.

As the nose comes back down for the oscillation you just hit 70 mph Add Flap 1

When the nose comes down through the 70 mph glide attitude apply a slight back pressure to arrest the oscillation.

Now let go the stick to verify your glide is stabilized at 70 mph

Look back at the runway to determine when to make your base leg turn.

Begin your turn as the glide angle to the target spot looks as if it about to become to out of gliding distance

Make your radio call reporting you are on base.

You are now at "Key position". Look on the extended final to make sure you are clear of all traffic. 80% of mid air collision happen on the base to final turn where everyone is focused on the runway.

Watch your target spot to determine when to make your turn to final. If while you are in a steady glide at 70 you see the end of the runway moving down in the windshield you are getting high. Widen out your base leg to make the final longer. If you see the end of the runway going up in the windshield you are getting low. Cut your corner to shorten the distance you must travel to hit your target. Add power if needed. Do not change the pitch as that changes your airspeed.

Turn Final Approach and make your radio call

FLIGHT TRAINING SUPPLEMENT – SOFT FIELD LANDING

Establish downwind at pattern altitude at a mid cruise speed i.e. 4500 to 4900 rpm

Abeam the touch down spot reduce power to idle

Compensate with the rudder for the change in torque.

Trim the nose up to the 70 mph glide position and allow the nose to rise.

As the nose comes back down for the oscillation you just his 70 mph Add Flap1

When the nose comes down through the 70 mph glide attitude apply a slight back pressure to arrest the oscillation.

Now let go the stick to verify your glide is stabilized at 70 mph

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Turn Final Approach and make your radio call

If you get high enough so that the approach end of the runway touches the instrument panel you have enough approach angle that the second notch of flap is required. Add the second notch of flap and trim way forward to maintain the approach speed of 70. The pitch should place the bar at the top of the windshield on the horizon to maintain a 70 speed.

Soft Field landing page 2

Maintain centerline using the side slip technique

Maintain 65 to 70 on short final

At about 300 feet transition your focus to the far end of the runway. You must do this. Failure to do this will result in a tendency to dramatically over control the plane as you flare for landing.

At about 100 feet check your airspeed one last time to verify you have the speed to

While focused at the far end. Raise the nose slightly to slow the rate of descent as you approach the ground. This will be very close to a level attitude, but you will still be descending slightly.

Wait...

As the plane gets closer to the runway. Raise the nose a little more.

Wait... (speed slows)

As the plane slows some more raise the nose a little to slow the rate of descent...

Wait... (speed slows)

When you are just above the runway add a little more back pressure until the top of the instrument panel has been raised to the horizon. Hold this attitude until touchdown.

Add about 300rpm to soften the landing.

As soon as the plane touches cut the power to idle and increase back pressure slowly to maintain the nose high attitude until the nose wheel come on over on its own.

FLIGHT TRAINING SUPPLEMENT – SHORT FIELD LANDING

Establish downwind at pattern altitude at a mid cruise speed i.e. 4500 to 4900 rpm

Abeam the touch down spot reduce power to idle

Compensate with the rudder for the change in torque.

Trim the nose up to the 70 mph glide position and allow the nose to rise.

As the nose comes back down for the oscillation you just hit 70 mph Add Flap 1

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Now let go the stick to verify your glide is stabilized at 70 mph

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Turn Final Approach and make your radio call

Add the second notch of flap and trim forward to maintain the approach speed of 60.

Add power as necessary to clear any obstacle or to carry you to your target spot.

Chop the power as hitting your target is assured.

Flare will be short as you have less airspeed to bleed off