



Piper Seminole Flight Maneuvers

North Star Aviation

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Slow Flight (Landing Configuration)

Altitude.....Recovered by 3000' AGL Minimum
Throttles.....Below 15" MP

Pitch to Maintain Altitude

Below 140 KIAS.....Gear Down
Below 111 KIAS.....Flaps 10°
Below 100 KIAS.....Props Forward
Below 90 KIASFlap 25°
Below 90 KIASFlap 40°

Power.....Increase to Maintain Altitude
Pitch.....Maintain Stall Speed +10/-0
(Target 60 KIAS)

Trim.....Adjust as Necessary

Recovery:

Smoothly Reduce Pitch
Power.....Increase to Max.
Flaps.....25°
Pitch for minimal loss of altitude
Positive Rate.....Flaps 10°
.....Gear Up
.....Flaps 0°
Accelerate.....V_Y (88 KIAS)
Return the Aircraft to Climb Settings –...25"

Power-Off Stall (Landing Configuration)

Altitude..... Recovered by 3000' AGL Minimum
Power.....Below 15" MP

Pitch to Maintain Altitude

Below 140 KIAS.....Gear Down
Below 111 KIAS.....Flaps 40°
(one notch at a time)
Below 100 KIAS.....Props Forward

Enter Normal Descent to Land.....Throttles to Idle
Maintain Altitude to Induce a Stall

Recovery: (Initiated at the first indication)

Smoothly Reduce Pitch
Power.....Increase to Max.
Flaps.....25°
Pitch for minimal loss of altitude
Positive Rate.....Flaps 10°
.....Gear Up
.....Flaps 0°
Re-initiate climb or level off if directed

Slow Flight (Takeoff Configuration)

Altitude.....Recovered by 3000' AGL Minimum
Power.....Below 15" MP

Pitch to Maintain Altitude

Below 100 KIAS.....Props Forward
Power.....Increase to Maintain Altitude
Pitch.....Maintain Stall Speed +10/-0
(Target 62 KIAS)

Trim.....Adjust as Necessary

Recovery:

Smoothly reduce pitch
Power.....Increase to Max.
Positive Rate.....Verify Gear Up
.....Verify Flaps 0°
Accelerate to Cruise Flight110 knots

Power-On Stall (Takeoff Configuration)

Altitude.....Recovered by 3000' AGL Minimum
Power.....Below 15"MP

Pitch to maintain altitude

Below 100 KIAS.....Props Forward
82 KIAS.....Power to 20" MP
Smoothly Increase Pitch to Induce a Stall

Recovery:(Initiated at the first indication)

Smoothly reduce pitch
Power.....Increase to Max.
Pitch for minimal loss of altitude
Positive Rate.....Verify Gear Up
.....Verify flaps 0°
Return the Aircraft to Climb Settings –...25"
Re-initiate climb or level off if directed

Steep Turns

Altitude.....3000' AGL Minimum
Power.....18"MP and 2300-2500RPM
Airspeed.....110 KIAS
Bank.....50°
Power.....Increase to Maintain Airspeed
TrimRoll Aft to Relieve Pressure
Roll Out.....Initial Heading
Execute a 360° turn in the opposite direction
Accelerate.....V_Y (88 KIAS)
Return the Aircraft to Climb Settings –...25"

Accelerated Stall

Altitude.....Recovered by 3000' AGL Minimum
Throttles.....Below 15" MP

Pitch to Maintain Altitude

Below 100 KIAS.....Props Forward
Bank.....45°
Throttles.....Idle
Maintain altitude to induce stall

Recovery: (Initiated at the first indication)

Smoothly reduce pitch

Bank.....Wings Level
Power.....Increase to Max.

Pitch for minimal loss of altitude

Positive Rate.....Verify Gear Up
.....Verify flaps 0°
Initiate climb or level off if directed

Drag Demonstration

Altitude.....4000' AGL Minimum
Throttles.....Below 15" MP

Cowl Flaps.....As Required

Pitch to Maintain Altitude

Below 100 KIAS.....Props Forward
Airspeed - 88 KIAS

Operating Engine.....Max Power
Inoperative Engine.....Sim. Feather
(11.5" MP, 2000 RPM)

Airspeed 88kts. (V_{YSE}).....Note Performance

Airspeed 78kts.....Note Performance

Airspeed 98kts.....Note Performance

Airspeed 88kts (V_{YSE})

Gear Down.....Note Performance

Flaps 10°.....Note Performance

Flaps 25°.....Note Performance

Flaps 40°.....Note Performance

Inoperative Engine (windmilling)

Prop.....Forward
Throttle.....Idle

.....Note Performance

Flaps 25°.....Note Performance

Flaps 10°.....Note Performance

Flaps 0°.....Note Performance

Gear Up.....Note Performance

Inoperative Engine.....15" MP (warm-up CHT)

Accelerate to Cruise Flight110 knots

V_{MC} Demonstration

Altitude.....Recovered by 4000' AGL Minimum
Throttles.....Below 15" MP

Below 100 KIAS.....Props Forward

Airspeed – 92 KIAS

Left engine.....Throttle to Idle

Right engine.....Throttle to Full

Pitch.....Increase to Lose 1kt Per Second

Recover at the **first indication** of a stall

Or

Red Radial Line 56kts (V_{MC})

Or

Loss of Directional Control

Recovery:

Right Engine.....Reduce to Regain Dir.
Control

Reduce Pitch (min. loss of alt.)

Directional Control Regained

Right Engine.....Increase power to full

Pitch for Minimal loss of Altitude

Accelerate..... V_{YSE} (88 KIAS)

Inoperative Engine.....15" MP (warm-up CHT)

Accelerate to Cruise Flight110 knots

Ground Reference Maneuvers

Altitude.....600-1000' AGL

Pre-Maneuver Check.....Complete

Area.....Clear of Obstructions

Airspeed.....110 KIAS

Enter Maneuver on **Downwind** Heading

Perform to Applicable Test Standards

V-Speeds

V_Y = 88 KIAS --- Best Rate of Climb

V_{YSE} = 88 KIAS --- Single Engine Best Rate of Climb

V_X = 82 KIAS --- Best Angle of Climb

V_{XSE} = 82 KIAS --- S.E. Best Angle of Climb

V_{SSE} = 82 KIAS --- Min. Intentional One Engine Inop.

V_{SO} = 55 KIAS --- Stall Speed (Landing Config.)

V_S = 57 KIAS --- Stall Speed (Clean Configuration)

V_{MC} = 56 KIAS --- Minimum Control

V_{FE} = 111 KIAS --- Maximum Flaps Extended

V_{LE} = 140 KIAS --- Maximum Landing Gear Extended

$V_{LO\ Down}$ = 140 KIAS --- Max. Landing Gear Extension

$V_{LO\ UP}$ = 109 KIAS --- Max. Landing Gear Retraction

V_{NO} = 169 KIAS --- Maximum Structural Cruising

V_{NE} = 202 KIAS --- Never Exceed

V_O = 115 – 135 KIAS --- Maneuvering Speed (V_A)