

Arrow Maneuvers

Pre-maneuver check list

Seat/shoulder belts on
Boost pump on
Clear the area

Post Maneuver check list

Power set (22" training, 24" cruise, prop 2450)
Prop set
Mixture set
Boost pump off
Heading and altitude

SLOW FLIGHT

Pre-maneuver check list
Reduce Power to 12"
Gear down below 120 KIAS
Flap downs in the white arc
Prop full forward (low pitch) below 90 KIAS
Mixture as required
Increase power to maintain level flight at 55-60 KIAS

Recovery

Power to 25", prop 2500
Flaps up
Gear up
Accelerate to 110 KIAS
Post maneuver check list

POWER OFF STALL

Pre-maneuver check list
Reduce Power to 12"
Gear down below 120 KIAS
Flap downs in the white arc
Prop full forward (low pitch) below 90 KIAS
Establish 80 KIAS, 500 fpm descent
Power idle, nose slightly above horizon till stall

Recovery

Full Power
Flaps up
Gear up
At 90 KIAS, power to 25", prop 2500

Accelerate to 110 KIAS
Post maneuver check list

POWER ON STALL

Pre-maneuver check list

Reduce Power to 12"

Prop full forward (low pitch) below 90 KIAS

Mixture as required

At 80 KIAS, simultaneously increase pitch to 20° and power to 22"

Recovery

Full Power

At 90 KIAS, power to 25", prop 2500

Accelerate to 110 KIAS

Post maneuver check list

STEEP TURNS

Pre-maneuver check list

Power 22", Prop 2500

Check Va (117 KIAS or less)

Bank 50 degrees

Recovery

Power to 25", prop 2500

Flaps up

Gear up

Accelerate to 110 KIAS

Post maneuver check list

Chandelles

Pre-maneuver check list

Flaps up, Gear up

Power to 22", Prop to 2500

Roll 30 degrees of bank

Power up to 25" and pitch up

At 90 degree point begin rolling out and maintain pitch

At 180 degree point, level wings and maintain altitude

Recovery

Maintain altitude

Accelerate to 110 KIAS

Power to 22"

Post maneuver check list

Lazy Eights

Pre-maneuver check list

Flaps up, Gear up

Power 20", Prop 2500

Choose 0, 90, and 180 degree visual reference

Pitch up slowly and begin shallow bank

At 45 degree point, Max pitch up, 15 degree bank

At 90 degree point, Nose at horizon, 30 degree bank

At 135 degree point, Max pitch down, 15 degree bank

Repeat in opposite direction

Recovery

Maintain original altitude

Power 22" Prop 2500

Post maneuver check list

Steep Spirals

Pre-maneuver check list

Flaps up, Gear up

Altitude +4000 ft. agl

Check V_a (117 KIAS or less)

Enter on downwind

Abeam reference point, Power idle and lower pitch

Bank at or below 60 degrees

Clear engine on upwind each turn

Recovery

After 3 turns, recover on downwind

Monitor engine temps

Power 22" Prop 2500

Post maneuver check list

Eights-on-Pylons

Pre-maneuver check list

Descend to pivotal altitude

Power 20" Prop 2500

Choose pylons 3-5 sec. apart

Enter on downwind

Adjust pivotal altitude with groundspeed

Recovery

Exit on downwind

Climb as needed

Post maneuver check list

Power-Off 180 Accuracy Landings

Pre-maneuver check list

Pre-landing check

Gear down below 120 KIAS

Abeam landing point, power to idle

Immediately pitch for Vg (91 KIAS)

Flaps 10 degrees

Turn a 45 degree base

Look for aiming point (needs to be just in front of landing point)

Turn final, prop full

Add flaps or slip as needed

Flare at aiming point

Ground speed			
MPH	Pivotal	kts	Pivotal
	Altitude		Altitude
60	240	50	221
65	282	55	268
70	327	60	319
75	375	65	374
80	427	70	434
85	482	75	498
90	540	80	566
95	602	85	639
100	667	90	717
105	735	95	799
110	807	100	885
115	882	105	976
120	960	110	1071
125	1042	115	1170
130	1127	120	1274
135	1215	125	1383
140	1307	130	1496
145	1402	135	1613
150	1500	140	1735
155	1602	145	1861
160	1707	150	1991