

RAM Aviation Piper Arrow Maneuvers

STEEP TURNS

Pre-Maneuver Check.....DO
 Reference Point.....PICK
 Heading.....NOTE
 Altitude.....3500 AGL
 Airspeed.....125 MPH
 Power.....22' MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT
Roll slowly and add power
 Bank.....50°
 Power.....24" MP
 Reference.....OUTSIDE/INSIDE
 Once start point is in view, reduce
 Power.....22" MP
 Bank.....OPPOSITE
 Hold.....LEVEL FLIGHT
Roll slowly and add power
 Bank.....50°
 Power.....24" MP
 Reference.....OUTSIDE/INSIDE
 Once start point is in view, reduce
 Power.....22" MP
 Heading.....SAME
 Altitude.....SAME

COMMERCIAL PILOT

Altitude: +/- 100 Feet
 Airspeed: +/- 10 Knots
 Bank: +/- 5°
 Heading: +/- 10°

SLOW FLIGHT

Pre-Maneuver Check.....DO
 Reference Point.....PICK
 Heading.....NOTE
 Altitude.....3500 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT
 Power.....REDUCE 15" MP
 Hold.....LEVEL FLIGHT
 Gear.....DOWN
 Flaps.....SLOWLY FULL
 Airspeed.....70 MPH
 Power.....ADD 24" MP
 Airspeed.....HOLD 65 MPH
 To Bank
 Power.....25" MP
 Bank.....20°
 To Descend
 Power.....20" MP
 To Climb
 Power.....FULL POWER

RECOVERY

Power.....FULL
 Flaps.....REDUCE FULL to 25°
 Airspeed.....90 MPH
 Gear.....UP
 Flaps.....UP
 Increase to 125 MPH
 Power.....22" MP

COMMERCIAL PILOT

Altitude: +/- 50 Feet
 Airspeed: +5/-0 Knots
 Bank: +/- 5°
 Heading: +/- 10°

RAM Aviation Piper Arrow Maneuvers

POWER OFF STALL

Pre-Maneuver Check.....DO
 Reference Point.....PICK
 Heading.....NOTE
 Altitude.....3500 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT
 Power.....REDUCE 15" MP
 Hold.....LEVEL FLIGHT
 Gear.....DOWN
 Flaps.....SLOWLY FULL
 Airspeed.....90 MPH
At 85 pitch down and descend
 Bank 20°.....AS REQUIRED
 Power.....REDUCE TO IDLE
 Pitch.....NOSE LEVEL
*Stall Series: Stall Light, Buffeting
 and full Stall*

RECOVERY

Roll.....WINGS LEVEL
 Power.....FULL
 Pitch.....LEVEL
 Flaps.....REDUCE FULL to 25°
 Airspeed.....90 MPH
 Pitch.....UP
 Positive Rate indicated on VSI
 Gear.....UP
 Flaps.....25° to 0°
 Airspeed.....100 MPH
Climb to Initial Altitude and Hold
 Increase to 125 MPH
 Power.....22" MP

COMMERCIAL PILOT

Heading: +/- 10°
 Bank: +/- 5°

POWER ON STALL

Pre-Maneuver Check.....DO
 Gear Override.....ON/UP
 Heading.....NOTE
 Altitude.....3500 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT
 Power.....FULL
 Set.....Vy 100 MPH
Right rudder as required
 Bank 20°.....AS REQUIRED
 Set.....Vx 96 MPH
While maintaining bank angle
 Pitch.....HOLD
*Stall Series: Stall Light, Buffeting
 and full Stall*

RECOVERY

Pitch.....LEVEL
 Roll.....WINGS LEVEL
 Heading.....HOLD
 Increase to 125 MPH
 Power.....22" MP
 Gear Override.....As Required

COMMERCIAL PILOT

Heading: +/- 5°
 Bank: +/- 10°

RAM Aviation Piper Arrow Maneuvers

SLIPS

Pre-Maneuver Check.....DO
 Reference Point.....PICK
 Heading.....NOTE
 Altitude.....3500 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT

DIRTY CONFIGURATION

Power.....IDLE
 Gear.....DOWN
 Flaps.....FULL
 Pitch.....105 MPH
 Aileron.....LEFT or RIGHT
 Rudder.....OPPOSITE

RECOVERY

Pitch.....LEVEL
 Power.....FULL
 Flaps..... REDUCE FULL to 25°
 Airspeed.....90 MPH
 Pitch.....UP
 Positive Rate indicated on VSI
 Gear.....UP
 Flaps.....25° to 0°
 Increase to 125 MPH
 Power.....22" MP

COMMERCIAL PILOT

Airspeed: +/- 10 Knots

EMERGENCY DESCENT

Pre-Maneuver Check.....DO
 Altitude.....ABOVE 3500 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT

CLEAN

Power.....IDLE
 Pitch.....170 MPH
 Bank.....AS REQUIRED

Do not Exceed 214 MPH

DIRTY

Power.....IDLE
 Gear.....DOWN
 Flaps.....FULL
 Airspeed.....125 MPH
 Bank.....AS REQUIRED

RECOVERY

Pitch.....LEVEL
 Power.....FULL
 Flaps..... REDUCE FULL to 25°
 Airspeed.....90 MPH
 Pitch.....UP

Positive Rate indicated on VSI
 Gear.....UP
 Flaps.....25° to 0°
 Increase to 125 MPH
 Power.....22" MP

COMMERCIAL PILOT

Airspeed: +/- 10 Knots

RAM Aviation Piper Arrow Maneuvers

STEEP SPIRAL

Pre-Maneuver Check.....DO
 Altitude.....ABOVE 6500 AGL
 Heading.....NOTE
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT

Select...GROUND REF. POINT

Power.....IDLE
 Pitch.....105 MPH
 Trim.....ADJUST
 Bank.....NOT TO EXCEED 60°
 Maintains.....RADIUS CIRCLE
 Maintains.....GROUND TRACK
 Completes.....(3) 360° TURNS

RECOVERY

Pitch.....LEVEL
 Power.....FULL
 Airspeed.....100 MPH
Climb to Initial Altitude/Maintain
 Increase to 125 MPH
 Power.....22" MP

COMMERCIAL PILOT

Airspeed: +/- 10 Knots
 Heading: +/- 10"
 Altitude: Level 1000 AGL or
 continue to a forced landing.

POWER OFF 180° LANDING

Traffic Pattern.....ESTABLISH
 Altitude.....1000 AGL
 Airspeed.....110 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Gear.....DOWN
 Flaps.....10°

Establish....Touch Dwn POINT
 Abeam/Power.....IDLE
 Establish.....105 MPH
 Base....FLAPS AS REQUIRED
 Maintain.....105 MPH
 Final....FLAPS AS REQUIRED
 Maintain.....105 MPH
 Complete.....FINAL CHECK
 Touchdown.....ON POINT

GO-AROUND

Power.....FULL
 Pitch.....LEVEL
 Flaps.....REDUCE FULL to 25°
 Airspeed.....90 MPH
 Pitch.....UP
 Positive Rate indicated on VSI
 Gear.....UP
 Flaps.....25° to 0°
 Airspeed.....100 MPH
Climb to TPA Altitude and Hold
 Increase to 110 MPH
 Power.....22" MP
 Gear.....DOWN
 Flaps.....10°

COMMERCIAL PILOT

Touch-Down Point: -0/+200 Feet

RAM Aviation Piper Arrow Maneuvers

CHANDELLES

Pre-Maneuver Check.....DO
 Gear Override.....ON/UP
 Heading.....NOTE
 Reference Points.....PICK
 Establish 90° off of LT. Wing
 (45° / 90° / 135° / 180°)
 Altitude.....3500 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT

MANEUVER

Roll.....30° BANK LT.
 Simultaneously.....POWER/PITCH
 Power.....FULL
 45° Point.....SLOW PITCH
 45° Point.....MAINTAIN 30° BANK
 45° to 90°.....HOLD PITCH/BANK
90° Point / Airspeed is 100 MPH
 90° Point.....CONSTANT BANK
 90° Point.....MAINTAIN PITCH
 90° to 135°.....DECREASE BANK
 90° to 135°.....CONSTANT PITCH
 135° to 180°.....DECREASE BANK
 135° to 180°.....CONSTANT PITCH
 180° Point.....HOLD PITCH
 180° Point.....WINGS LEVEL

Airspeed just Above Stall

Altitude Maintain

Increase to 125 MPH

Power.....22" MP

Reverse Steps to the RIGHT

COMMERCIAL PILOT

Heading: +/- 10°

Altitude: Maintain

LAZY EIGHTS

Pre-Maneuver Check.....DO
 Gear Override.....ON/UP
 Heading.....NOTE
 Reference Points.....PICK
 Establish 90° off of LT. Wing
 (45° / 90° / 135° / 180°)
 Altitude.....3500 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT

MANEUVER

*Constant Change of
 Pitch and Roll Rate*

NO CHANGE IN POWER

0° to 45°.....SLOW PITCH/ROLL
 45° Point.....15° BANK
 45° Point.....MAX PITCH UP
 45° to 90°.....SLOW PITCH/ROLL
 90° Point.....30° BANK
*At 90° Point let Nose Slice
 Through the Horizon at 45°*
 90° to 135°.....PITCH DOWN
 90° to 135°.....30° to 15° BANK
 135° Point.....MAX PITCH DOWN
 135° Point.....BANK at 15°
 135° to 180°.....RETURN TO ALT
 135° to 180°.....BANK 15° to 0°
 180° Point.....PITCH LEVEL
 180° Point.....BANK 0°

return to entry altitude

Reverse Steps to the RIGHT

COMMERCIAL PILOT

Altitude: +/- 100 Feet

Airspeed: +/- 10 Knots

Heading: +/- 10°

RAM Aviation Piper Arrow Maneuvers

EIGHTS ON PYLONS

Pre-Maneuver Check.....DO
 Pivotal Altitude.....ESTABLISH
 Arrow is 1,000 AGL
 Altitude.....1000 AGL
 Airspeed.....125 MPH
 Power.....22" MP
 Prop.....2500 RPM
 Hold.....LEVEL FLIGHT
 Reference Points.....PICK
 Two Points 10 Sec. apart at P.A.
 Establish.....WIND DIRECTION
 Establish.....WIND SPEED/P.A.
 Establish...GROUNDSPEED/P.A.

MANEUVER

Start.....DOWNWIND
 Start.....1ST TURN/LEFT

ENTRY

Heading.....NOTE
 Wing Tip.....COVERS 1ST POINT
 Bank/Roll.....LEFT

*Maintain Line-of-Sight Reference
 Around the point*

Bank/Roll.....WINGS LEVEL

At midway point of maneuver

3 – 5 seconds between points

Heading.....NOTE

Wing Tip.....COVERS 2nd POINT

Bank/Roll.....RIGHT

*Maintain Line-of-Sight Reference
 Around the point*

Bank/Roll.....WINGS LEVEL

At midway point of maneuver

3 – 5 seconds between points

Complete.....TWO CIRCUITS

COMMERCIAL PILOT

Bank: 30° to 40° at Steepest Bank

POWER SETTINGS

TRAFFIC PATTERN

Downwind.....110 MPH
 Power.....22" MP
 Gear.....DOWN
 Flaps.....10°
 Abeam.....18" MP
 Base/Flaps.....25°
 Final/Flaps.....90 MPH/FULL
 Final Check.....COMPLETE
 Fence Check.....COMPLETE

FINAL CHECK

Mixture.....RICH
 Prop.....HIGH
 Gear.....(3) IN THE GREEN

FENCE CHECK

Gear.....(3) IN THE GREEN

APPROACH CONFIGURATION

(Prop always at 2500 RPM)

CRUISE DESCENT

500 FPM/18" MP/130 MPH

1000 FPM/ 18" MP/ 150 MPH

APPROACH GEAR UP

Level / 20" MP / Flaps 10 / 120

500 FPM / 16" MP / Flaps 10/120

1000 FPM / 12" MP/Flaps 10/120

APPROACH GEAR DOWN

Level / FULL / Flaps 10 / 120

500 FPM / 20" MP / Flaps 10/120

1000 FPM/18" MP / Flaps 10/120