



INFLIGHT

PILOT TRAINING

PIPER PA28RT-201 ARROW IV

PROCEDURES MANUAL

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Piper PA28RT-201 Arrow IV Procedures

Pre-Maneuver Flow

Seat Belts.....On
Fuel Selector.....On
Mixture.....Rich
Fuel Pump.....On

Slow Flight – Airplane Flying Handbook (AFH) 4-3

Clearing Turns.....Complete
Altitude.....Minimum 1500' AGL

Maneuver

Throttle.....15" MP
Landing Gear.....Extend
Flaps.....Extend in Increments to 40°
Prop RPM.....Full
Airspeed.....Pitch to maintain **above** stall horn
Altitude.....Increase power as necessary to maintain

Recovery – if stall horn sounds, buffet occurs, or instructor directs.

Power.....Full (Verify Mixture, Prop, Throttle)
Flaps.....Retract in increments (Flaps, Flaps, Gear Flaps)
Gear.....Retract

Tolerances

Heading.....+/- 10°
Altitude.....+/- 100 ft.
Airspeed.....Above stall horn

Steep Turns – 360° left and right (PVT/Commercial) – **AFH 9-2**

Clearing Turns.....Complete
Altitude.....Minimum 1500' AGL
Reference Point.....Landmark near horizon

Maneuver

Throttle.....20" MP
Prop RPM.....2500 RPM
Airspeed.....110 KTS
During Turn.....Slight throttle increase

Tolerances

Heading.....+/- 10°
Altitude.....+/- 100 ft.
Airspeed.....+/- 10 KTS
Bank Angle.....45° (50°)

Power-Off Stall (Approach Configuration) – AFH 4-8

Clearing Turns.....Complete
Altitude.....An altitude allowing full recovery by 1500' AGL

Maneuver

Throttle.....15" MP
Landing Gear.....Extend
Flaps.....Extend in Increments to 40°
Prop RPM.....Full
Airspeed.....Pitch and Trim for 75 KTS
Altitude.....Establish descent, choose an altitude to initiate the stall

Recovery

Pitch.....Lower pitch, reducing elevator pressure, then back to climb attitude
Ailerons.....Neutral, then level the wings
Rudder.....Control yaw
Power.....Full (Verify Mixture, Prop, Throttle)
Flaps.....1st Notch immediately, 2nd Notch with Positive ROC, 3rd Notch at 78 KTS
Landing Gear.....Retract (Positive ROC)

Tolerances

Heading.....+/- 10°
Bank Angle.....20° maximum

Power-On Stall (Takeoff/Climb Configuration) – AFH 4-9

Clearing Turns.....Complete
Altitude.....An altitude allowing full recovery by 1500' AGL

Maneuver

Throttle.....15" MP
Altitude.....Maintain level
Landing Gear.....Extend
Prop RPM.....Full
Airspeed.....Vr or Vy, as desired
Power..... Full (Verify Mixture, Prop, Throttle)

Recovery

Pitch.....Lower pitch, reducing elevator pressure, then back to climb attitude
Ailerons.....Neutral, then level the wings
Rudder.....Control yaw
Power.....Full
Landing Gear.....Retract (Positive ROC)

Tolerances

Heading.....+/- 10°
Bank Angle.....20° maximum

Accelerated Stall (Commercial/CFI) – AFH 4-10

Clearing Turns.....Complete
Altitude.....An altitude allowing full recovery by 1500' AGL

Maneuver

Throttle.....15" MP
Prop RPM.....Full
Altitude.....Maintain level
Bank Angle.....45°, increase back pressure to reach stall

Recovery

Pitch.....Lower pitch, reducing elevator pressure, then back to climb attitude
Ailerons.....Neutral, then level the wings
Rudder.....Control yaw
Power.....Full

Secondary Stall (CFI) – AFH 4-10

Clearing Turns.....Complete
Altitude.....An altitude allowing full recovery by 1500' AGL

Maneuver

Throttle.....15" MP
Landing Gear.....Extend
Flaps.....Extend in Increments to 40°
Prop RPM.....Full
Airspeed.....Pitch and Trim for 75 KTS
Altitude.....Establish descent, choose an altitude to initiate the stall
Stall Indication.....Release back pressure, then immediately increase abruptly

Recovery

Pitch.....Lower pitch, reducing elevator pressure, then back to climb attitude
Ailerons.....Neutral, then level the wings
Rudder.....Control yaw
Power.....Full (Verify Mixture, Prop, Throttle)
Flaps.....1st Notch immediately, 2nd Notch with Positive ROC, 3rd Notch at 78 KTS
Landing Gear.....Retract (Positive ROC)

Elevator Trim Stall (CFI) – AFH 4-12

Clearing Turns.....Complete
Altitude.....An altitude allowing full recovery by 1500' AGL

Maneuver

Throttle.....15" MP
Landing Gear.....Extend
Flaps.....Extend in Increments to 40°
Prop RPM.....Full
Airspeed.....Pitch and Trim for 75 KTS
Altitude.....Establish descent, choose an altitude to initiate the stall
Power.....Full, simulate go-around (Mixture, Prop, Throttle)

Recovery

Pitch.....Lower pitch, reducing elevator pressure, then back to climb attitude
Ailerons.....Neutral, then level the wings
Rudder.....Control yaw
Power.....Full (Verify Mixture, Prop, Throttle)
Flaps.....1st Notch immediately, 2nd Notch with Positive ROC, 3rd Notch at 78 KTS
Landing Gear.....Retract (Positive ROC)

Crossed Control Stall (CFI) – AFH 4-11

Clearing Turns.....Complete
Altitude.....An altitude allowing full recovery by 1500' AGL

Maneuver

Throttle.....15" MP
Landing Gear.....Extend
Prop RPM.....Full
Descent.....75 KTS
Enter Turn.....Increase Rudder in Direction of Turn, Increase Opposite Aileron, Maintain Elevator Back Pressure

Recovery

Pitch.....Lower pitch, reducing elevator pressure, then back to climb attitude
Ailerons.....Neutral, then level the wings
Rudder.....Control yaw
Power.....Full (Verify Mixture, Prop, Throttle)
Landing Gear.....Retract (Positive ROC)

Chandelles – AFH 9-5

Clearing Turns.....Complete
Altitude.....An altitude of at least 1500' AGL
Reference Point.....Selected

Maneuver

Airspeed.....110 KTS
Throttle.....Approx. 22" MP
Prop RPM.....Full
Chandelle.....Complete

Tolerances

Heading.....+/- 10°
Bank Angle.....30° maximum
Airspeed.....Just above stall

Lazy Eights – AFH 9-6

Clearing Turns.....Complete
Altitude.....An altitude of at least 1500' AGL
Reference Point.....Selected

Maneuver

Airspeed.....110 KTS
 Throttle.....22" MP
 Prop.....2300 RPM
 Lazy Eight.....Complete

Tolerances

Heading.....+/- 10°
 Bank Angle.....30° maximum
 Airspeed.....+/- 10 KTS
 Altitude.....+/- 100' from entry altitude

Steep Spirals – AFH 9-4

Clearing Turns.....Complete
 Altitude.....An altitude allowing 3 complete turns by 1500' AGL
 Reference Point.....Selected

Maneuver

Throttle.....Idle abeam point
 Prop RPM.....Full
 Landing Gear.....Extend
 Airspeed.....90 KTS
 Steep Spiral.....Complete 3 turns
 Clearing Engine..... Clear with a slight throttle increase on each upwind

Tolerances

Heading.....+/- 10°
 Bank Angle.....45° to begin turn, 60° maximum
 Airspeed.....+/- 10 KTS
 Altitude.....Complete by 1500' AGL

Eights on Pylons – AFH 6-14

Clearing Turns.....Complete
 Altitude..... Pivotal altitude calculated/selected
 Reference Points.....Selected
 Emergency Field.....Selected

Maneuver

Airspeed.....110 KTS
 Throttle.....22" MP
 Prop.....2300 RPM
 Eights on Pylons.....Complete

Tolerances

Heading.....45° entry to first pylon
 Bank Angle.....As necessary
 Airspeed.....+/- 10 KTS
 Altitude.....Begin and end at pivotal altitude

Turns Around a Point – AFH 6-8

Clearing Turns.....Complete
Altitude..... 1000' AGL
Reference Point.....Selected
Emergency Field.....Selected

Maneuver

Airspeed.....110 KTS
Throttle.....22" MP
Prop2300 RPM
Turn Around Point.....Complete

Heading.....+/- 10°
Bank Angle.....45° maximum
Airspeed.....+/- 10 KTS
Altitude.....+/- 100'

S-Turns Across a Road – AFH 6-10

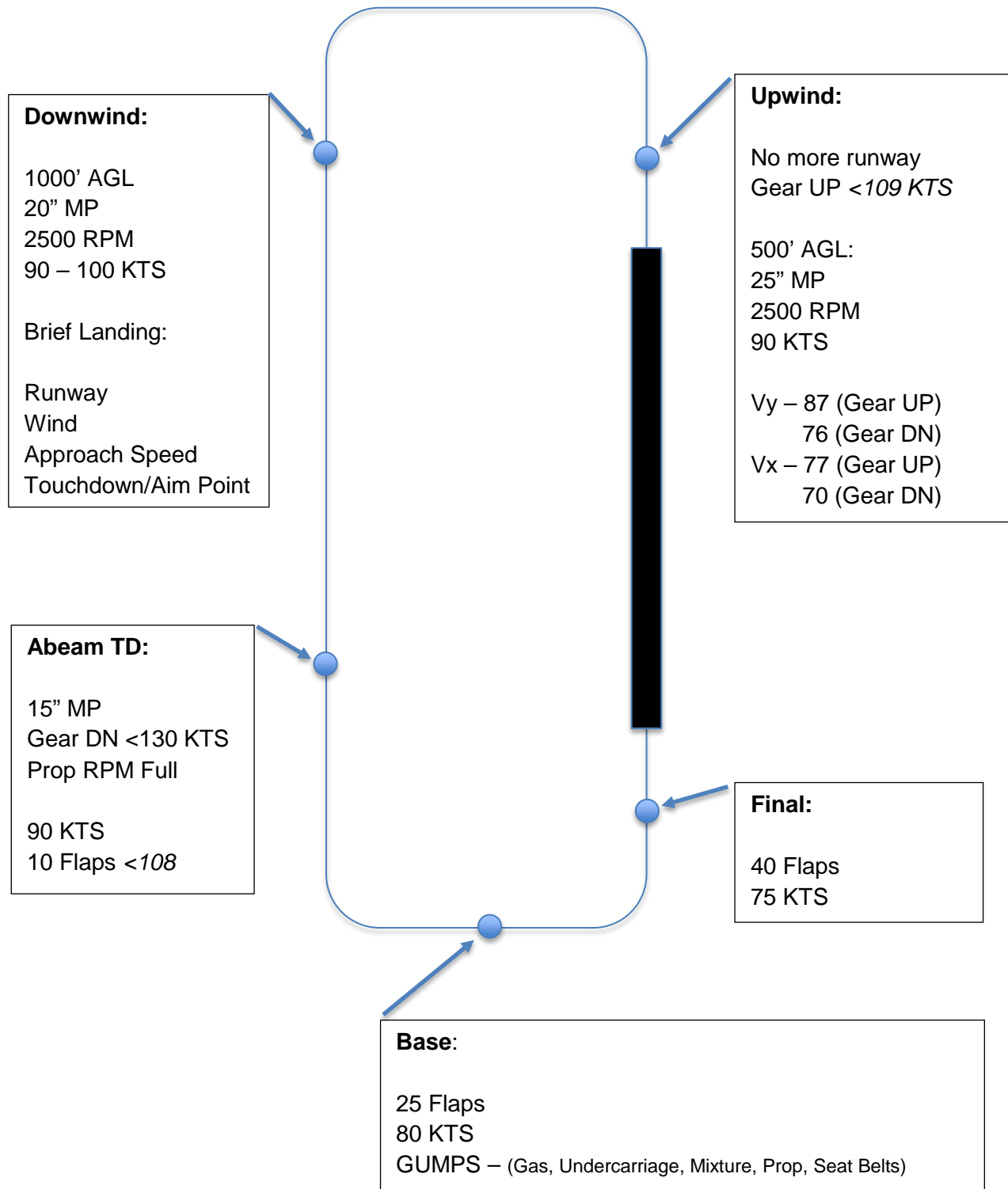
Clearing Turns.....Complete
Altitude..... 1000' AGL
Reference Point.....Selected
Emergency Field.....Selected

Maneuver

Airspeed.....110 KTS
Throttle.....22" MP
Prop2300 RPM
S-Turn.....Complete

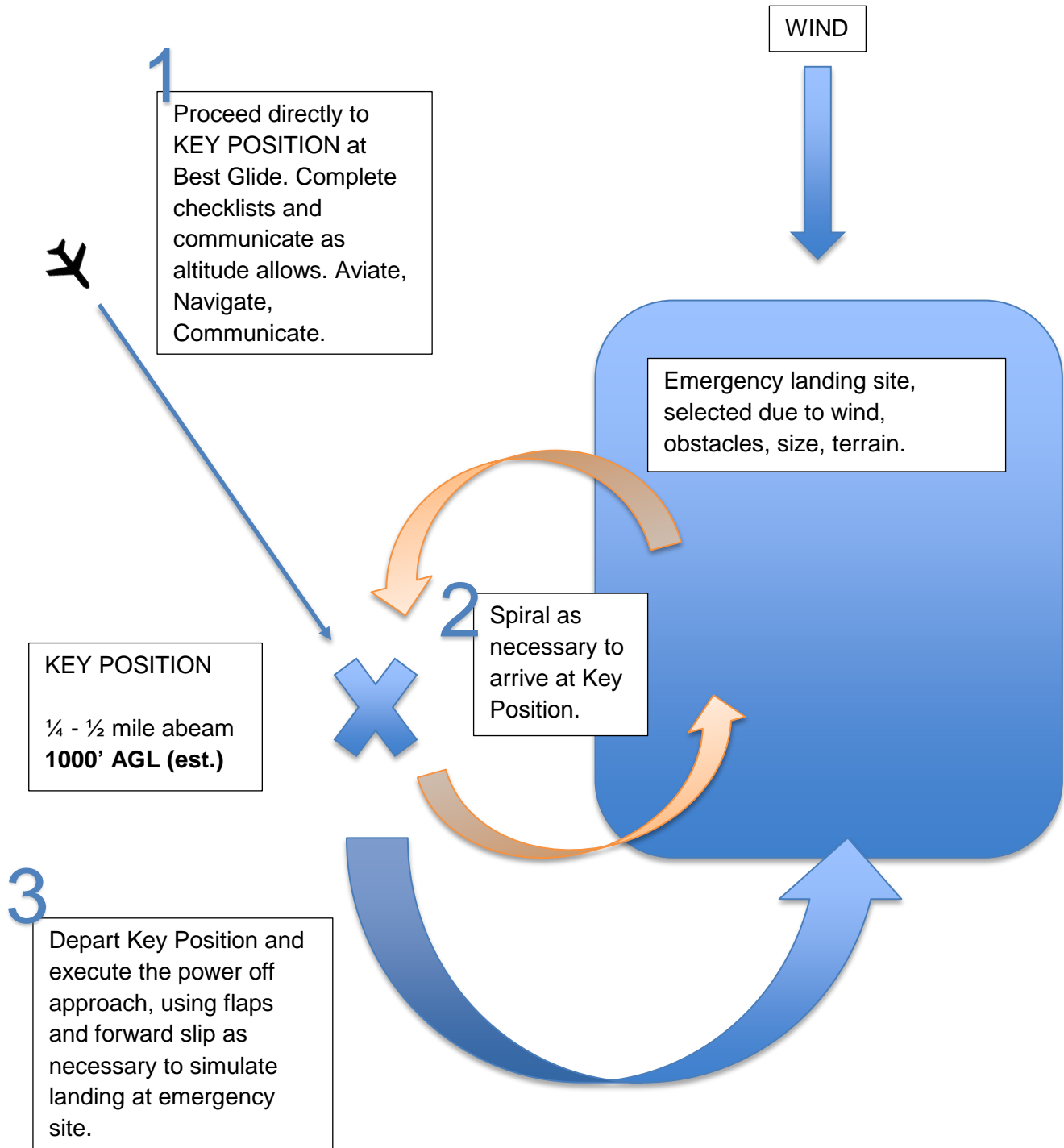
Heading.....+/- 10°
Bank Angle.....45° maximum
Airspeed.....+/- 10 KTS
Altitude.....+/- 100'

Traffic Pattern – AFH CH. 7



Engine Failure Procedure – AFH 8-25, 26

The engine failure procedure is intended to provide the student with a basic procedure in order to correctly set up the aircraft for a power off approach to the emergency landing site. Not included in this procedure are the necessary procedures and checklists to troubleshoot the engine and secure the engine. These will be found in the aircraft POH as well as the Inflight iPad checklists.



Instrument Approach Procedure

Prior to the Approach:

Approach.....Briefed
Checklists..... Completed as necessary

On Initial Approach Segment or Downwind/Base Vector

Throttle.....22" MP
Prop.....2500 RPM
Airspeed.....110 KTS

Approaching Major Descent Point (1/2 Scale on GS or 2 NM to FAF)

Landing Gear..... Down (below 130 KTS)
Flaps.....10° (below 108 KTS)
Airspeed.....100 KTS

Intercepting Major Descent Point (GS/FAF)

Throttle.....16" – 17" MP
Landing Gear.....Verify 3 Green
Flaps.....25°
Pitch.....2.5° Down
Airspeed.....100 KTS

Briefing the Approach

WEATHER – ATIS/Automated Weather

INSTRUMENTS – Set as necessary.

RADIOS – Set as necessary

ENVIRONMENT – Brief the approach

Brief the approach from Top to Bottom

Header - Verify Name, Type, and Runway of the approach. Discuss the notes and frequencies and note any changes as necessary. Verify airport lighting. Tune and ID frequencies. Verify airport elevation and TDZE.

Planview – Brief current location relative to the airport, IAF, approach segments to the airport, and any procedure turns. Minimum Safe Altitude for the area. Brief runway position relative to Final Approach Course. Is circling required?

Profile – Brief fixes, altitudes, and minimums.

Missed Approach – Brief the FULL missed approach. The first 2 steps should be memorized.