

**PA-44-180 EMERGENCY CHECKLIST**

Original: Issued February 28, 2011  
FOR INSTRUCTIONAL USE ONLY

**V/R ENGINE FAILURE  
(BELOW V<sub>R</sub>)**

<b>Adequate Runway:</b>	
Throttles	CLOSE
Stop	STRAIGHT AHEAD
<b>Inadequate Runway:</b>	
Throttles	CLOSE
Brakes	MAX BRAKING
Mixtures	IDLE CUT OFF
Fuel Selectors	OFF
Magnetos	OFF
Battery Master Switch	OFF
Checklist	COMPLETE

**V/R ENGINE FAILURE ON TAKEOFF  
(ABOVE V<sub>R</sub>)**

<b>Adequate Runway:</b>	
Directional Control	MAINTAIN
Throttles	CLOSE
Land As Soon As Practical	EXECUTE
Stop	STRAIGHT AHEAD
<b>Inadequate Runway/Decide to Continue:</b>	
Directional Control	MAINTAIN
Mixtures	FULL FORWARD
Propellers	FULL INCREASE
Throttles	FULL FORWARD
Flaps	UP
Landing Gear	Up
Airspeed	88KIAS
Inoperative Engine	IDENTIFY
Throttle (inoperative engine)	CLOSE/VERIFY
Propeller (inoperative engine)	FEATHER
Checklist	COMPLETE

**V/R ENGINE FAILURE DURING CLIMB**

Airspeed	Above V <sub>YSE</sub>
Directional Control	Maintain
Power	Max Continuous
Inoperative Engine	Identify/Verify
Inoperative Engine	Feather/Restart
Trim	As Required
Cowl Flap (operative engine)	As Required

Land As Soon As Practical EXECUTE  
Checklist COMPLETE  
Single Engine Landing Checklist EXECUTE

**V/R ENGINE FAILURE IN FLIGHT**

Airspeed	ABOVE V <sub>YSE</sub>
Directional Control	MAINTAIN
Mixtures	FULL FORWARD
Propellers	FULL INCREASE
Throttles	FULL FORWARD
Flaps	UP
Landing Gear	UP
Inoperative Engine	IDENTIFY
Throttle (inoperative engine)	CLOSE/VERIFY
Inoperative Engine	FEATHER/RESTART

**V/R FEATHER INOPERATIVE ENGINE**

Propeller (inoperative engine)	FEATHER ABOVE 950RPM
Mixture (inoperative engine)	IDLE CUT OFF
Heading	TURN TO AIRPORT

Trim	AS REQUIRED
Cowl Flap (operative engine)	AS REQUIRED
Fuel Pump (operative engine)	AS REQUIRED
Fuel Pump (inoperative engine)	OFF
Alternator Switch (inoperative engine)	OFF
Magnetos (inoperative engine)	OFF
Fuel Quantity (operative engine)	MONITOR
Fuel Selector (inoperative engine)	OFF
Fuel Selector (operative engine)	AS REQUIRED
Electrical Load	MONITOR/REDUCE
Throttle/Propeller Control (op. eng.)	AS REQUIRED
Checklist	COMPLETE
Single Engine Landing Checklist	EXECUTE

**V/R RESTART INOPERATIVE ENGINE**

Fuel Quantity	CHECKED
Engine Gauges	CHECKED
Fuel Selector (inoperative engine)	ON
Primer (inoperative engine)	LOCKED
Carburetor Heat (inoperative engine)	ON
Mixture (inoperative engine)	AS REQUIRED
Fuel Pump (inoperative engine)	ON
Magnetos (inoperative engine)	CHECK LEFT AND RIGHT/ON
Fuel Selector (inoperative engine)	CONSIDER CROSSFEED
Throttle (inoperative engine)	ADVANCE/CLOSE
Starter (inoperative engine)	ENGAGE IF PROPELLER STOPPED
Checklist	COMPLETE

**V/R ENGINE FAILURE BELOW V<sub>MC</sub>**

Rudder	AGAINST YAW
Throttles	RETARD TO STOP TURN
Airspeed	ACCELERATE TO ABOVE 56 KIAS
Throttle (operative engine)	ADVANCE ABOVE 56 KIAS
Inoperative Engine	FEATHER/RESTART
Checklist	COMPLETE

**V/R AIR START INOPERATIVE ENGINE  
UFEATHERING PROCEDURE  
(STARTER ASSISTED)**

Fuel Selector (inoperative engine)	ON
Carburetor Heat (inoperative engine)	OFF
Mixture (inoperative engine)	AS REQUIRED
Throttle (inoperative engine)	1/4 INCH OPEN
Fuel Pump (inoperative engine)	ON
Magnetos (inoperative engine)	ON
Propeller (inoperative engine)	FWD TO CRUISE
Starter	ENGAGE UNTIL PROP WINDMILLS

If Engine DOES NOT Start:

Primer	AS REQUIRED/LOCKED
Starter	ENGAGE TILL PROP WINDMILLS
Throttle	15" MP TILL ENGINE IS WARM
Fuel Pump	OFF
Alternator	ON

Checklist COMPLETE

**V/R AIR START INOP ENGINE  
UNFEATHERING PROCEDURE  
(ACCUMULATOR FUNCTIONING)**

Fuel Selector (inoperative engine)	ON
Carburetor Heat (inoperative engine)	OFF
Mixture (inoperative engine)	AS REQUIRED
Throttle (inoperative engine)	1/4 INCH OPEN
Fuel Pump (inoperative engine)	ON
Magnetos (inoperative engine)	ON
Propeller (inoperative engine)	FULL INCREASE

If Engine Starts:

Throttle	15"MP TILL ENGINE IS WARM
Fuel Pump	OFF
Alternator	ON

If Engine DOES NOT Start:

UNFEATHERING STARTER ASSISTED CHECKLIST EXECUTE  
Checklist COMPLETE

**V/R SINGLE ENGINE LANDING**

Inoperative Engine	SECURE
Seats & Belts	CHECKED
Fuel Selector (operative engine)	ON
Mixture (operative engine)	FULL FORWARD
Propeller (operative engine)	FULL INCREASE
Fuel Pump (operative engine)	ON
Cowl Flap (operative engine)	AS REQUIRED

When Landing Is Assured:

Landing Gear	DOWN/3 GREEN
Flaps	MAXIMUM 25° SET
Airspeed	90 KIAS
Throttle (op. eng.)	RETARD SLOWLY
Trim	AS REQUIRED

Checklist COMPLETE

V/R SINGLE ENGINE GO AROUND	
Mixture (operative engine)	FULL FORWARD
Propeller (operative engine)	FULL INCREASE
Throttle (operative engine)	FORWARD SLOWLY
Flaps	RETRACT SLOWLY
Landing Gear	UP
Airspeed	88 KIAS
Trim	AS REQUIRED
Cowl Flap (operative engine)	AS REQUIRED
Checklist	COMPLETE

V/R ENGINE FIRE DURING START	
Starter	CONTINUE CRANKING

If Engine DOES Start :

Affected Engine	KEEP RUNNING
Fuel Selector	OFF
Mixture	IDLE CUT OFF

If Engine DOES NOT Start:

Mixture	IDLE CUT OFF
Throttle	FULL FORWARD
Starter	CONTINUE CRANKING

If Fire Continues Complete For Both Engines:

Fuel Selectors	OFF
Fuel Pumps	OFF
Mixtures	IDLE CUT OFF
Throttles	FULL FORWARD
Cabin Fire Extinguisher (if installed)	OBTAIN/USE
Aircraft	EVACUATE

Checklist COMPLETE

V/R ENGINE FIRE IN FLIGHT	
Affected Engine:	
Fuel Selector	OFF
Throttle	CLOSE
Propeller	FEATHER
Mixture	IDLE CUT OFF
Fuel Pump	OFF
Cowl Flap	OPEN
Airspeed	INCREASE TO EXTINGUISH FIRE

Feather Inoperative Engine Checklist COMPLETE  
 Land As Soon As Practical EXECUTE  
 Checklist COMPLETE

V/R CABIN FIRE	
Battery Master Switch	OFF
Vents/Cabin Air/Heat	CLOSED/OFF
Cabin Fire Extinguisher (if installed)	OBTAIN/USE
Cabin	VENTILATE

Land As Soon As Practical EXECUTE  
 Checklist COMPLETE

V/R ELECTRICAL FIRE IN FLIGHT	
Flashlight (night time)	OBTAIN
Battery Master Switch	OFF
Alternator Switches	OFF
All Electrical Switches	OFF
Radio Master Switch	OFF
Vents	CLOSED
Cabin Heat	OFF
Cabin Fire Extinguisher (if installed)	OBTAIN/USE

Complete for SN 4496001 And Up Seminole Only:  
 Tie Bus Circuit Breakers:

Both Main Bus (60 amp)	PULL
Non-Essential (40 amp)	PULL
Avionics Bus #1 (40 amp)	PULL
Avionics Bus #2 (40 amp)	PULL
L. Alternator (70 amp)	FULL
R. Alternator (70 amp)	PULL

All Main Bus Circuit Breakers PULL  
 All Avionics Bus Circuit Breakers PULL

If Fire Is Extinguished & Electrical Is Needed:

One Main Bus Circuit Breaker (60 amp)	IN
Battery Master Switch	ON
L. or R. Alternator Circuit Breaker (70 amp)	IN
L. or R. Alternator Field Circuit Breaker (5 amp)	IN
L. or R. Alternator Switch	ON
Main/Avionics Bus Circuit Breakers (as required)	IN
Radios Master Switch	ON
Vents (after fire extinguished)	OPEN

Land As Soon As Practical EXECUTE  
 Checklist COMPLETE

V/R GEAR UP LANDING	
Approach Speed	NORMAL
Flaps	UP
Throttles	CLOSE PRIOR TO TOUCHDOWN
Battery Master Switch	OFF
Magnetos	OFF
Fuel Selectors	OFF
Land	MINIMUM AIRSPEED
Checklist	COMPLETE

V/R PROPELLER OVERSPEED	
Throttle (affected engine)	RETARD
Oil Pressure (affected engine)	CHECKED
Propeller (affected engine)	FULL DECREASE RPM IF CONTROL AVAILABLE
Airspeed	REDUCE

Throttle (afftd eng) AS REQUIRED TO REMAIN BELOW 2700 RPM  
 Checklist COMPLETE

V/R EMERGENCY EXIT	
Thermoplastic Cover	REMOVE
Emergency Exit Handle	PULL FORWARD
Window	PUSH OUT
Checklist	COMPLETE

### PA-44-180 ABNORMAL CHECKLIST

V/R GYRO SUCTION FAILURE (<4.5IN. Hg)	
Vacuum Annunciator Illuminated	CHECK SUCTION
Propellers	INCREASE TO 2700 RPM
Altitude	DESCEND TO MAINTAIN 4.5IN. HG
Checklist	COMPLETE

V/R ELECTRICAL FAILURES	
ALT Light On	DETERMINE INOP ALT(S)
If One Ammeter Shows Zero:	
Electrical Load	REDUCE
Inoperative Alternator	OFF
Alternator Circuit Breaker	CHECKED/RESET
Inop Alternator (after OFF at least 1 sec)	ON
If Alternator Output IS NOT Restored:	
Inoperative Alternator	OFF
Ammete	MONITOR & MAINTAIN BELOW 60AMPS
If Both Ammeters Show Zero:	
Electrical Load	REDUCE
Both Alternators	OFF
Alternator Circuit Breakers	CHECKED/RESET
Alternators (after OFF at least 1 sec)	ON
If Alternator Outputs Are Not Restored:	
Alternators	OFF
Electrical Load	MAINTAIN BELOW 60 AMPS
Land As Soon As Practical	EXECUTE
Checklist	COMPLETE

V/R OPEN DOOR IN FLIGHT (ENTRY DOOR ONLY)	
Airspeed	82 KIAS MAX
Cabin Vents	CLOSE
Storm Window	OPEN
If Top Latch Is Open	LATCH
If Side Latch Is Open	PULL ARMREST AND LATCH
If Both Latches Are Open	SIDE LATCH FIRST THEN TOP LATCH
Checklist	COMPLETE

V/R MANUAL EXTENSION OF GEAR	
Navigation Lights (daytime)	OFF
Day/Night Dimmer Switch (daytime)	DAY
Circuit Breakers	CHECKED
Battery Master Switch	ON
Alternators	ON
Airspeed	100 KIAS MAX
Gear Selector	DOWN
Emergency Gear Extension Knob	PULL
Indicator Lights	3 GREEN
Gear Extension Knob	LEAVE OUT
Checklist	COMPLETE