

# PA 44 Seminole Checklist

## BEFORE STARTING ENGINE

Preflight - complete  
Passenger Briefing  
Seats - Adjusted  
Seatbelts - Fasten  
Circuit Breakers - In  
Avionics - Off  
Fuel Selectors - On  
Trim - Set  
Cowl Flaps - Open  
Primers - Locked  
Carb Heat - Off  
Gear Lever - Down  
Master - On  
Alternators - On  
Nav Lights - NIGHT ONLY  
Strobes - On

## STARTING ENGINES

Electric Fuel Pumps - On  
Magnetos - All On  
Mixture - Full Rich  
Props - Full Forward  
Throttles - ¼ inch open  
Prime - As needed then lock  
Prop Area - Clear  
Starter - Engage  
Throttle - Adjust to 1000 rpm  
Oil Pressure - Check  
Mixture - Lean for Taxi

Repeat checklist - 2<sup>nd</sup> engine

## BEFORE TAXIING

Avionics Master Switch - ON  
Avionics - SET  
Wing Flaps - UP  
Aux Fuel Pumps - OFF, then ON  
(Check Fuel Pressure)  
Lights - AS REQUIRED  
Obtain ATIS/ASOS/AWOS  
Altimeter - SET  
Cabin Air - AS REQUIRED

## TAXIING

Throttles - AS REQUIRED  
Brakes - CHECK  
Flight Instruments - CHECK

## BEFORE TAKEOFF

Brakes - HOLD  
Radios - SET  
Flight Instruments - CHECK & SET  
Mixtures - Full Forward  
Props - Full Forward  
Throttles - 1500 RPM  
Prop Controls - check feathering,  
500rpm max drop  
Throttles - 2000 RPM  
Props - EXERCISE (200-300 RPM  
drop) 3 times when cold  
Prop Controls - Full fwd  
Carb Heat - check  
Magnetos - check 175rpm max drop,  
50rpm max diff  
Alternator Output - check  
Gyro Suction - 4.8-5.2  
Engine Instruments - Check  
Throttles - 1000 RPM  
Flight Controls - Free & Correct  
Fuel Selectors - On  
Cowl Flaps - Open  
Primers - Locked  
Carb Heat - Off  
Quadrant Friction - set  
Mixtures - Set  
Props - Full  
Annunciator Panel - Test  
HSI - Set  
Autopilot - Checked  
Trim - Set

Fuel Pumps - On  
Landing Light - On  
Seatbelts - Secure  
Door - Latched  
Window - Closed  
**EMERGENCY BRIEF**  
On the Runway  
After Liftoff Gear Up/Down  
No runway remaining

## TAKEOFF

Flaps - UP  
Mixtures - SET for field elevation  
Throttle - FULL 2700 RPM  
Engine Inst. - CHECK  
Vmc Speed - 56 KIAS  
Elevator Control - Vr 75kts

## AFTER TAKEOFF

After Positive Rate of Climb  
Brakes - APPLY momentarily  
Landing Gear - RETRACT  
Red Gear Unsafe Light - Off  
**Best Angle Climb - 82 KIAS**  
**Best Rate Climb - 88 KIAS**

## CRUISE CLIMB

Power - 2500 RPM & 25"MP  
Airspeed - 90-105 KIAS  
Mixtures - ADJUST as needed  
Cowl Flaps - AS REQUIRED  
Heading Ind. - COMPASS

## CRUISE

Cruise Power - 20" to 23" MP & 2300RPM  
Prop RPM - Set  
Mixtures - AS REQUIRED  
Cowl Flaps - AS REQUIRED  
Trim Tabs - ADJUST  
Aux Fuel Pumps - OFF

## DESCENT - LANDING

### ACCGUMPS

Aux. Fuel Pumps - ON  
Carb Heat - AS REQ  
Cowl Flaps - AS REQ  
(Gas) Fuel Selectors - ON  
(Undercarriage) Gear - DOWN  
(below 140 KIAS)  
- Green Down lights - ON  
- Red Unsafe light - OFF  
Mixture - RICH  
Propellers - FULL FORWARD  
Seat Belts - SECURE  
Switches - Landing light on  
Flaps - as required below 111kts  
Final Approach Speed -88 KIAS(normal)  
80 KIAS(short)

## GO AROUND

Power - FULL & 2700 RPM  
Check Positive Rate of Climb  
Wing Flaps - UP  
(when clear of obstacles & Positive  
Rate)  
Landing Gear - RETRACT  
(Positive Rate)  
Pitch for Blue Line  
Cowl Flaps - AS REQ'D  
Carb Heat - OFF

## AFTER LANDING - TAXI

Landing Lights-AS REQ'D  
Flaps - Up  
Cowl Flaps - OPEN  
Carb Heat - OFF  
Mixture - LEAN FOR TAXI

## SHUT DOWN

Transponder - VFR  
Avionics Master - Off  
Landing Light - Off  
Aux Pumps - Off  
Throttles - Idle  
Props - HIGH RPM  
Mixtures - IDLE CUT-OFF  
Magnetos - OFF  
(after engine stops)  
Batt and Alternators - OFF  
HOBBS/TACH TIME  
Control Lock - INSTALL  
Cabin Door - CLOSE

Vr - 75  
Vx - 82  
Vxse - 82  
Vy - 88  
Vyse - 88  
Vso - 55  
Vs1 - 57  
Vmc - 56  
Vsse - 82  
Va - 135 - Max Gross  
Va - 112 - 2700 lbs  
Vle - 140  
Vlr - 109  
Vno - 169  
Vne - 202

## **ENGINE FIRE ON GROUND**

*ENGINE HAS NOT STARTED*

**MIXTURE .....CUTOFF**  
**THROTTLE .....FULL OPEN**  
STARTER .....KEEP ENGAGED  
CONTINUE TO CRANK ENGINE

*ENGINE HAS JUST STARTED*

**CONTINUE RUNNING TO PULL FIRE INTO ENGINE**

*IF FIRE CONTINUES*

**FUEL SELECTORS .....OFF**  
**FUEL PUMPS .....OFF**  
**MIXTURES .....CUTOFF**  
**THROTTLES .....FULL OPEN**  
MASTER SWITCH.....OFF FIRE EXTINGUISHER .....USE IF PRACTICAL  
EVACUATE AIRCRAFT

## **EMERGENCY EVACUATE**

MIXTURES .....CUTOFF  
FUEL SELECTORS .....OFF  
FUEL PUMPS .....OFF  
MASTER SWITCH .....OFF  
PARKING BRAKE .....SET  
EXIT MAIN DOOR OR EMERGENCY EXIT

**EMERGENCY EXIT**

PLASTIC COVER.....REMOVE  
EMER. EXIT HANDLE.....PULL FWD  
WINDOW .....PUSH OUT

## **ENGINE FIRE IN-FLIGHT**

AFFECTED ENG FUEL SELECTOR.....OFF  
AFFECTED ENG THROTTLE.....CLOSE  
AFFECTED ENG PROP .....FEATHER  
AFFECTED ENG MIXTURE .....CUTOFF  
AFFECTED ENG COWL FLAP .....OPEN  
*PERFORM ENGINE FAILURE SECURE CHECKLIST*

*IF FIRE PERSISTS*

AIRSPPEED ....INCREASE (up to VNE 202 KIAS) In attempt to blow out fire.  
LAND ASAP AT NEAREST SUITABLE AIRPORT

### **Electrical Fire**

MASTER SWITCH .....OFF  
ALTERNATORS .....OFF  
ALL ELECTRICAL SWITCHES .....OFF  
AVIONICS MASTER .....OFF  
VENTS (to avoid drafts) .....CLOSED  
CABIN HEAT .....OFF  
LAND AS SOON AS PRACTICAL

*Extinguish with fire extinguisher if practical. Refer to POH for complete electrical fire checklist procedure*

**IN-FLIGHT ENGINE FAILURE MAINTAIN DIRECTIONAL CONTROL / PITCH ATTITUDE / AIRSPEED**  
**MIXTURES .....FULL FWD**  
**PROPS .....FULL FWD**  
**THROTTLES .....FULL FWD**  
**FLAPS .....UP**  
**GEAR .....UP**  
**IDENTIFY .....DEAD FOOT**  
**VERIFY/THROTTLE .....CLOSE**

### **Troubleshoot**

INOP THROTTLE .....OPEN 1"  
FUEL PUMPS .....ON  
MAGNETOS .....ON/CHECK  
FUEL SELECTORS .....ON  
PRIMERS .....LOCKED  
CARB HEAT .....ON, CHECK, OFF  
FUEL QTY/PRESSURE .....CHECK  
OIL PRESSURE/TEMP .....CHECK  
*If engine inop, continue In-Flight Engine Failure Checklist & Engine Failure Secure*  
INOP ENG MIXTURE .....CUTOFF  
INOP ENG PROP .....FEATHER

## **ENGINE FAILURE SECURE**

OPERATING ENG MIXTURE .....LEAN AS REQ  
TRIM .....AS REQ  
INOP ENG MAGNETOS .....OFF  
INOP ENG FUEL PUMP .....OFF  
INOP ENG ALTERNATOR .....OFF  
INOP ENG FUEL SELECTOR .....OFF  
INOP ENG COWL FLAP .....CLOSED  
FRESH AIR FAN .....OFF

### **AIRSTART**

INOP ENG FUEL SELECTOR .....ON  
INOP ENG CARB HEAT .....OFF  
INOP ENG MIXTURE .....FULL FWD  
INOP ENG PROP .....FULL FWD  
INOP ENG FUEL PUMP .....ON  
INOP ENG ALTERNATOR .....ON  
INOP ENG MAGNETOS .....ON  
INOP ENG THROTTLE ....TWO FULL STROKES  
INOP ENG THROTTLE .....1/4" OPEN  
INOP ENG STARTER .....(8 sec max)  
ENGAGE

*PROP WINDMILLING*

INOP ENG STARTER .....RELEASE  
*WHEN ENGINE BEGINS TO RUN*  
THROTTLE .....INCREASE SLOWLY TO 15" MP  
MAINTAIN 15" MP UNTIL CHT GREEN  
*PERFORM CRUISE CHECKLIST*

### **PROP OVERSPEED**

THROTTLE .....RETARD  
OIL PRESSURE .....CHECK  
PROP CONTROL .....DECREASE  
*Do not feather. Set RPM if any control.*  
AIRSPEED .....REDUCE  
THROTTLE (below 2700 RPM) ...AS REQ  
ENG SHUTDOWN .....IF NECESSARY

## **IN-FLIGHT ENGINE FAILURE**

### **APPROACH**

MIXTURES .....FULL FWD  
PROPS .....FULL FWD  
THROTTLES .....FULL FWD  
**FLAPS .....EVALUATE**  
**GEAR .....EVALUATE**  
IDENTIFY .....DEAD FOOT  
VERIFY/THROTTLE.....CLOSE  
INOP ENG PROP .....FEATHER  
INOP ENG MIXTURE .....CUTOFF  
*On Short Final: "Gear Down-3 Green, 1 in the Mirror"*

### **UNSAFE GEAR / MANUAL EXTENSION**

NAV LIGHTS .....CHECK OFF  
CIRCUIT BREAKERS .....CHECK  
MASTER SWITCH .....CHECK ON  
AMMETERS .....CHECK  
AIRSPEED .....100 KIAS MAX  
GEAR SELECTOR .....DOWN  
EMER. EXTENSION KNOB .....PULL  
INDICATOR LIGHTS .....CHECK 3 GREEN  
LEAVE EMER. KNOB OUT .....CHECK  
IF 3 GREEN NOT INDICATED..YAW AIRCRAFT and APPLY G-LOAD  
*Refer to POH for amplified.*

### **Emergency Descent**

THROTTLES .....CLOSED  
PROPS .....FULL FWD  
GEAR .....Down Below 140 KIAS  
COWL FLAPS .....CLOSED  
MAINTAIN .....120-140 KIAS  
MIXTURES .....ADJUST