



# Piper Seminole Normal Checklist



## BEFORE START

PARKING BRAKE	SET
PASSENGER BRIEFING	COMPLETE
SEATS	ADJUST & LOCK
SEATBELTS & HARNESSSES	FASTEN
HEATER SWITCH	OFF
CIRCUIT BREAKERS	CHECK IN
ELECTRICAL SWITCHES	OFF
FRICTION HANDLE	AS DESIRED
MIXTURES	IDLE CUT-OFF
PROPELLERS	FULL FORWARD
THROTTLES	IDLE
GEAR SELECTOR	DOWN
CARBURETOR HEAT CONTROLS	OFF
COWL FLAPS	OPEN
FLAPS	RETRACTED
TRIMS	(2) SET
FUEL SELECTORS	ON
AVIONICS MASTER SWITCH	OFF
EMERGENCY BATT	ARM
EBATT VOLTS	(23.3 or more) CHECK

## ENGINE START

(For "Hot" & "Flooded" starts, ref: POH Section 4)

BATTERY MASTER SWITCH	ON
ALTERNATORS	ON
GEAR LIGHTS	3 GREEN
THROTTLES	¼ INCH OPEN
PROPELLERS	FULL FORWARD
MIXTURES	FULL RICH
NAV LIGHTS	AS REQUIRED
FIN STROBE	ON

### PROPELLER AREA CLEAR

* ELECTRIC FUEL PUMP	ON
* MAGNETOS	ON
* PRIMER	AS REQUIRED
* STARTER	ENGAGE
* THROTTLE	1000 RPM
* MIXTURE	ADJUST
* OIL PRESSURE	CHECK
* VOLTS	(28) CHECK
* AMPS	(Positive) CHECK

### \*REPEAT FOR OTHER ENGINE

## AFTER START

EXTERNAL POWER SOURCE	VERIFY REMOVED
BATTERY MASTER	VERIFY ON
FUEL SELECTORS	(>30 sec) BOTH X-FEED
AVIONICS MASTER SWITCH	ON

MFD DATABASE	ACKNOWLEDGE
FUEL TOTALIZER	SYNC/SET
TACH TIME	(Left Engine) VERIFY
ANNUNCIATOR	(AUX – System Status page) TEST
FLIGHT PLAN	BUILD & ACTIVATE
RADIOS, NAVS, & TRANSPONDER	SET
ATIS/ALTIMETERS	COPY/SET
ALTITUDE SELECTORS	(2) SET
CAS, PFD, & SYSTEM Annunc. & MSGs.	CONSIDER
STANDBY FLIGHT INSTRUMENT	CHECK
FUEL SELECTORS	ON
ELECTRIC FUEL PUMPS	OFF

## TAXI

PARKING BRAKE	RELEASE
LANDING LIGHT	ON
BRAKES & NOSE WHEEL STEERING	CHECK
PRIMARY FLIGHT INSTRUMENTS	CHECK
STANDBY FLIGHT INSTRUMENT	CHECK

## ENGINE RUNUP

PARKING BRAKE	SET
LANDING LIGHT	OFF
MIXTURES	FULL RICH
PROPELLER CONTROLS	FULL FORWARD
THROTTLES	1500 RPM
PROPELLER CONTROLS	CHECK FEATHER (MP-Increase, RPM-Decrease, Oil Pressure-Decrease)
THROTTLES	2000 RPM
GOVERNOR	CHECK (Props-1900, MP-Increase 1-2", RPM-Maintained, MP-Decrease, Props-Full Forward)
CARBURETOR HEAT CONTROLS	(2) CHECK
MAGNETOS	(Max drop 175, Max diff. 50) CHECK
ALTERNATORS	CHECK
THROTTLES	IDLE then 1000
MIXTURES	ADJUST

## BEFORE TAKEOFF

FLIGHT CONTROLS	FREE & CORRECT
FLIGHT INSTRUMENTS	CHECK
ENGINE INSTRUMENTS	CHECK
FUEL QUANTITY	SUFFICIENT
PROPELLERS	FULL FORWARD
CARBURETOR HEAT CONTROLS	OFF
COWL FLAPS	OPEN
FLAPS	SET
TRIMS	(2) SET
FUEL SELECTORS	ON
CAS, PFD, & SYSTEM Annunc. & MSGs.	CONSIDER
TAKEOFF BRIEFING	COMPLETE

ELECTRIC FUEL PUMPS	ON
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DOOR & WINDOW	CLOSED & LATCH
MIXTURES	FULL RICH
PITOT HEAT	AS REQUIRED
RECOG., LANDING, & STROBE LIGHTS	ON

## NORMAL TAKEOFF

BRAKES	HOLD
THROTTLES	2000 RPM
ENGINE INSTRUMENTS	CHECK
BRAKES	RELEASE
THROTTLES	FULL POWER
ROTATE	75 KIAS
GEAR	(After Positive Rate) UP
CLIMB	88 KIAS

## SHORT FIELD TAKEOFF (Flaps 0°)

FLAPS	SET
BRAKES	HOLD
THROTTLES	2000 RPM
ENGINE INSTRUMENTS	CHECK
THROTTLES	FULL POWER
BRAKES	RELEASE
ROTATE	(MTOW) 70 KIAS
CLIMB	(MTOW) 82 KIAS
GEAR	(After Positive Rate) UP
CLEAR OBSTACLE	88 KIAS

## CLIMB (Above 800 AGL)

GEAR	(Below 109) UP
AIRSPEED	105 KIAS
POWER	(25" MP & 2500 RPM) SET
ENGINE INSTRUMENTS	CHECK

## CRUISE

ELECTRIC FUEL PUMPS	(1 at a time) OFF
FUEL FLOW	CHECK
POWER	SET
PROPELLERS	SYNC
MIXTURES	LEAN
ENGINE INSTRUMENTS	CHECK
LIGHTS	AS REQUIRED
COWL FLAPS	AS REQUIRED

## DESCENT

RECOG. LIGHTS	ON
POWER	AS REQUIRED
MIXTURES	ADJUST WITH DESCENT

ALTITUDE SELECTORS	(2) SET
COWL FLAPS	CLOSE

## BEFORE LANDING

SEAT BACKS	MOST UPRIGHT
SEATBELTS & HARNESSSES	FASTEN & SECURE
FUEL SELECTORS	ON
COWL FLAPS	AS REQUIRED
CARBURETOR HEAT CONTROLS	AS REQUIRED
HEATER	AS DESIRED
LANDING & RECOG. LIGHTS	ON
MIXTURES	FULL RICH
PROPELLERS	FULL FORWARD
GEAR	(Below 140 KIAS) DOWN, 3 GREEN
ELECTRIC FUEL PUMPS	ON
FLAPS	AS REQUIRED (105 Downwind, 95 Base, 85 Final (75 short field @MLW))

### \* GUMPS VERIFY ON BASE AND FINAL \*

## AFTER LANDING (Clear of Runway)

RADIO	SET
TRIMS	(2) SET
FLAPS	RETRACTED
COWL FLAPS	OPEN
CARBURETOR HEAT CONTROLS	OFF
MIXTURES	ADJUST
FIN STROBE/STROBES & RECOG.	ON/OFF
PITOT HEAT	OFF
ELECTRIC FUEL PUMPS	OFF

## SHUTDOWN

PARKING BRAKE	SET
HEATER (If On)	FAN 2 Min. then OFF
LANDING LIGHT	OFF
ELT	MONITOR 121.5
TACH TIME	(Left Engine) RECORD
AVIONICS MASTER	OFF
EMERGENCY BATTERY	OFF
FANS	(2) OFF
THROTTLES	IDLE
MAGNETOS	CHECK
MIXTURES	IDLE CUT-OFF
MAGNETOS	OFF
LIGHTS	OFF
ALTERNATORS & BATTERY MASTER	OFF
STANDBY INSTRUMENT	VERIFY OFF
HOBBS TIME	RECORD
CONTROL LOCK	INSTALL
CHOCKS & PITOT-STATIC COVER	INSTALL
PARKING BRAKE	RELEASE

## ENGINE FAILURE (BEFORE ROTATION)

THROTTLES	CLOSE
DIRECTIONAL CONTROL	MAINTAIN
BRAKES	AS REQUIRED
<b>INSUFFICIENT RUNWAY REMAINING</b>	
MIXTURES	IDLE CUTOFF
MAGNETOS	OFF
BATTERY MASTER SWITCH	OFF
FUEL SELECTORS	OFF
STOP	STRAIGHT AHEAD, AVOID OBSTACLES

## ENGINE FAILURE (AFTER ROTATION)

**GEAR DOWN**

THROTTLES	CLOSE
DIRECTIONAL CONTROL	MAINTAIN
LAND	STRAIGHT AHEAD, AVOID OBSTACLES
BRAKES	AS REQUIRED

**GEAR UP/IN TRANSIT**

MIXTURES	FULL RICH
PROPELLERS	FULL FORWARD
THROTTLES	FULL FORWARD
GEAR	VERIFY UP
FLAPS	VERIFY UP
INOPERATIVE ENGINE	IDENTIFY
THROTTLE (INOP ENGINE)	CLOSE
PROPELLER (INOP ENGINE)	FEATHER
MIXTURE	IDLE CUTOFF
BANK	2-3° TOWARD OPERATIVE ENGINE
AIR SPEED	(88 KIAS) $V_{YSE}$
TRIM	ADJUST
FUEL SELECTOR (INOP ENGINE)	OFF
COWL FLAP (INOP ENGINE)	CLOSE
ELECTRIC FUEL PUMP (INOP ENGINE)	OFF
MAGNETOS (INOP ENGINE)	OFF
ALTERNATOR (INOP ENGINE)	OFF
LAND	AS SOON AS PRACTICAL

## ENGINE FAILURE (Flight Below $V_{MC}$ )

THROTTLES	IDLE
RUDDER	APPLY AGAINST YAW
PITCH	LOWER, ACCELERATE to $V_{MC}$
POWER (OPERATIVE ENGINE)	INCREASE

**IF ALTITUDE ALLOWS**  
 ENG. FAIL. (FLIGHT ABOVE  $V_{MC}$ ) CHECKLIST COMPLETE

**IF ALTITUDE DOES NOT PERMIT**  
 INOPERATIVE ENGINE SECURE

## ENGINE FAILURE (Flight Above $V_{MC}$ )

INCREASE POWER	MIXTURES, PROPS, THROTTLES
INOPERATIVE ENGINE	IDENTIFY
OPERATIVE ENGINE	POWER AS REQUIRED
AIR SPEED	(88 KIAS) $V_{YSE}$
FUEL SELECTORS	ON
CARBURETOR HEAT CONTROLS	ON
ELECTRIC FUEL PUMPS	ON
MAGNETOS	ON
FUEL QUANTITY	CHECK
OIL TEMPERATURE & PRESSURE	CHECK

(If engine fails to start, complete "Engine Securing" checklist)

## ENGINE SECURING

THROTTLE	RETARD TO VERIFY
PROPELLER	(Above 950 RPM) FEATHER
MIXTURE	IDLE CUTOFF
FUEL SELECTOR (INOP ENGINE)	OFF
CARBURETOR HEAT CONTROLS	OFF
ELECTRIC FUEL PUMPS	OFF
MAGNETOS (INOP ENGINE)	OFF
COWL FLAP (INOP ENGINE)	CLOSED
COWL FLAP (OPERATIVE ENGINE)	AS REQUIRED
ALTERNATOR (INOP ENGINE)	OFF
ELECTRICAL LOAD	REDUCE
POWER (OPERATIVE ENGINE)	AS REQUIRED
FUEL QUANTITY (OPERATIVE ENGINE)	CHECK
CROSSFEED (OPERATIVE ENGINE)	AS REQUIRED
LAND	AS SOON AS PRACTICAL

## AIR START

THROTTLE (INOP ENGINE)	¼ INCH OPEN
MIXTURE (INOP ENGINE)	FULL RICH
FUEL SELECTOR (INOP ENGINE)	ON
CARBURETOR HEAT	AS REQUIRED
ELECTRIC FUEL PUMP (INOP ENGINE)	ON
MAGNETOS (INOP ENGINE)	ON
PRIME	AS REQUIRED
PROPELLER (INOP ENGINE)	(110 KIAS) FULL FORWARD

(If propeller does not windmill w/in 5-7 seconds, engage starter)

THROTTLE	15° UNTIL ENGINE IS WARM
ELECTRIC FUEL PUMP	OFF
ALTERNATOR	ON

## ENGINE FIRE (During Start)

MIXTURE	IDLE CUTOFF
THROTTLE	FULL OPEN
STARTER	CONTINUE CRANKING

**IF FIRE PERSISTS**

FUEL SELECTORS	OFF
ELECTRIC FUEL PUMPS	OFF
MASTER SWITCH	OFF
AIRPLANE	EVACUATE
EXTERNAL FIRE EXTINGUISHER	USE

## ENGINE FIRE (Inflight)

### ON AFFECTED ENGINE

THROTTLE	CLOSE
PROPELLER	FEATHER
MIXTURE	IDLE CUTOFF
COWL FLAP	OPEN
FUEL SELECTOR	OFF
AIR SPEED	(If fire persists) INCREASE TO EXTINGUISH
ENGINE	SECURE

## ELECTRICAL FIRE

EMERGENCY BATTERY	VERIFY ARM
BATTERY MASTER	OFF
ALTERNATORS	OFF
VENTS	CLOSED
CABIN HEAT	OFF
IF FIRE PERSISTS	(If practical) LOCATE, EXTINGUISH

## LANDING GEAR MALFUNCTION

CIRCUIT BREAKERS	CHECK
BATTERY MASTER SWITCH	ON
ALTERNATORS	CHECK

### MANUAL GEAR EXTENSION

AIR SPEED	(Below 100 KIAS) REDUCE
GEAR	DOWN
EMERG. GEAR EXTEND KNOB	PULL
GEAR POSITION LIGHTS	3 GREEN

## SINGLE ALTERNATOR FAILURE

VERIFY FAILURE	CHECK AMPS
ELECTRICAL LOAD	(Less than 75 amps in air) REDUCE
FAILED ALTERNATOR	OFF
FAILED ALTERNATOR CB	RESET
FAILED ALTERNATOR SWITCH	ON

### IF ALTERNATOR STILL FAILED

FAILED ALTERNATOR SWITCH	OFF
ALTERNATOR AMPS INDICATION	(<75 Amps) MONITOR

## DUAL ALTERNATOR FAILURE

VERIFY FAILURE	CHECK AMPS
<b>ATTEMPT TO RESET ALTERNATORS</b>	
FAILED ALTERNATOR SWITCHES	OFF
FAILED ALTERNATOR CBs	ON

### IF ONLY ONE ALTERNATOR RESETS

OPERATING ALTERNATOR SWITCH	ON
FAILED ALTERNATOR SWITCH	OFF
ELECTRICAL LOAD	(<75 Amps in air) MONITOR

### IF NEITHER ALTERNATOR RESETS

BOTH ALTERNATOR SWITCHES	OFF
ELECTRICAL LOAD	SHED w/in 3 MINUTES
NON ESS BUS CB	PULL
LIGHTING BUS CB	PULL
AVIONICS BUS CB	PULL
AVIONICS MASTER SWITCH	OFF
EMERGENCY BATTERY	VERIFY ARM
BATTERY AMPS	(Less than-20 AMPS) MONITOR
PITOT HEAT	15 MINUTES MAX
COM RADIO	3 MINUTES MAX

## COMPLETE ELECT. FAILURE

EMERGENCY BATTERY SWITCH	VERIFY ARM
STANDY FLIGHT INSTRUMENTS	VERIFY OPERATIONAL
AIRCRAFT CONTROL	USE PFD AND STBY
BATTERY MASTER SWITCH	OFF
ALTERNATOR SWITCHES	OFF

### PRIOR TO LANDING

LANDING LIGHT	INOPERATIVE
GEAR	USE MANUAL EXTENSION

### APPROX. 30 MINUTES OF POWER

### LAND AS SOON AS PRACTICAL

## $V_{MC}$ DEMONSTRATION

AIR SPEED	88 KIAS
COWL FLAPS	OPEN
GEAR	UP
PROPELLERS	FULL FORWARD
THROTTLE (SIMULATED INOP ENGINE)	IDLE
THROTTLE (OTHER ENGINE)	FULL POWER
AIR SPEED	REDUCE 1 KIAS/SECOND

### RECOVER AT FIRST INDICATION

RUDDER	MAINTAIN DIRECTIONAL CONTROL
BANK	(MAX) 5° TOWARD OPERATING ENGINE

### RECOVERY

THROTTLE (OPERATING ENGINE)	IDLE
ANGLE OF ATTACK	REDUCE
AIR SPEED	( $V_{SSE}$ ) 82 KIAS
THROTTLE (OPERATING ENGINE)	FULL POWER
CLIMB	( $V_{SSE}/V_{YSE}$ ) 82/88 KIAS

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\*\* To be used in conjunction with the POH\*\*