

# **BEFORE START**

SET PARKING BRAKE PASSENGER BRIEFING COMPLETE SEATS ADJUST & LOCK SEATBELTS & HARNESSES **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 **OPEN** COWL FLAPS FLAPS RETRACTED TRIMS (2) SET **FUEL SELECTORS** ON OFF AVIONICS MASTER SWITCH **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 1/4 INCH OPEN **PROPELLERS FULL FORWARD MIXTURES FULL RICH** AS REQUIRED **NAV LIGHTS** 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
BATTERY MASTER
VERIFY ON
FUEL SELECTORS
AVIONICS MASTER SWITCH
VERIFY REMOVED
VERIFY ON
V

# **Piper Seminole Normal Checklist**

MFD DATABASE ACHKNOWI FDGF TACH TIME (Left Engine) VERIFY SYNC/SET **FUEL TOTALIZER 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 CONSIDER CAS, PFD. & SYSTEM Annunc, & MSGs. TAKEOFF BRIEFING COMPLETE ELECTRIC FUEL PUMPS

EL PUMPS (

DOOR & WINDOW

MIXTURES
PITOT HEAT
RECOG., LANDING, & STROBE LIGHTS

CLOSED & LATCH
FULL RICH
AS REQUIRED
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 **CHECK ENGINE INSTRUMENTS** 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 & HARNESSES **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** (Below 140 KIAS) DOWN, 3 GREEN GEAR **ELECTRIC FUEL PUMPS** 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** FIT **MONITOR 121.5** TACH TIME (Left Engine) RECORD **AVOINICS MASTER** OFF **EMERGENCY BATTERY** OFF FANS (2) OFF **THROTTLES IDLE MAGNETOS CHECK MIXTURES IDLE CUT-OFF** OFF **MAGNETOS** LIGHTS OFF OFF ALTERNATORS & BATTERY MASTER STANDBY INSTRUMENT **VERIFY OFF** HOBBS TIME RECORD **CONTROL LOCK** INSTALL CHOCKS **INSTALL** PARKING BRAKE RELEASE



# Seminole Emergency & Abnormal Checklist



# ENGINE FAILURE (BEFORE ROTATION)

THROTTLES CLOSE
DIRECTIONAL CONTROL MAINTAIN
BRAKES AS REQUIRED

#### **INSUFFICENT RUNWAY REMAINING**

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** 2-3° TOWARD OPERATIVE ENGINE BANK AIRSPEED (88 KIAS) VYSE TRIM **ADJUST FUEL SELECTOR (INOP ENGINE)** OFF COWL FLAP (INOP ENGINE) CLOSE **ELECTRIC FUEL PUMP (INOP ENGINE)** OFF OFF MAGNETOS (INOP ENGINE) ALTERNATOR (INOP ENGINE) OFF AS SOON AS PRACTICAL LAND

## **ENGINE FAILURE** (Flight Below V<sub>MC</sub>)

THROTTLES IDLE
RUDDER APPLY AGAINST YAW
PITCH LOWER, ACCELERATE to V<sub>MC</sub>
POWER (OPERATIVE ENGINE) INCREASE

#### **IF ALTITUDE ALLOWS**

ENG. FAIL. (FLIGHT ABOVE V<sub>MC</sub>) CHECKLIST COMPLETE

#### IF ALTITUDE DOES NOT PERMIT

INOPERATIVE ENGINE SECURE

# **ENGINE FAILURE** (Flight Above V<sub>MC</sub>)

MIXTURES, PROPS, THROTTLES **INCREASE POWER INOPERATIVE ENGINE IDENTIFY OPERATIVE ENGINE POWER AS REQUIRED AIRSPEED** (88 KIAS) VYSE **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**

**RETARD TO VERIFY** THROTTLE **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) 1/4 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 OFF FLETRIC FUEL PUMP 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
AIRSPEED (If fire persists) INCREASE TO EXTINGUISH
ENGINE SECURE

## **ELECTRICAL FIRE**

EMERGENCY BATTERY
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**

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

# SINGLE ALTERNATOR FAILURE

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

### IF ALTERNATOR STILL FAILED

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

# **DUAL ALTERNATOR FAILURE**

VERIFY FAILURE CHECK AMPS

#### ATTEMPT TO RESET ALTERNATORS

FAILED ALTERNATOR SWITCHES OFF FAILED ALTERNATOR CBs ON

#### IF ONLY ONE ALTERNATOR RESETS

OPERATING ALTERNATOR SWITCH ON FAILED ALTERNATOR SWITCH OFF ELETRICAL 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** VFRIFY 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<sub>MC</sub> DEMONSTRATION**

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

## **RECOVER AT FIRST INDICIATION**

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

## **RECOVERY**

THROTTLE (OPERATING ENGINE)

ANGLE OF ATTACK

AIRSPEED

THROTTLE (OPERATING ENGINE)

CLIMB

IDLE
REDUCE
(Vsse) 82 KIAS
FULL POWER
(Vsse/Vyse) 82/88 KIAS

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