



**N6199B – Warrior II - PA-28-161**

## **NORMAL OPERATIONS**

### **BEFORE START ENGINE**

HOBBS ..... RECORD  
PREFLIGHT INSPECTION ..... COMPLETE  
A.R.R.O.W..... CHECK  
AIRPORT DIAGRAM ..... AVAILABLE  
PASSENGER BRIEF ..... S.A.F.E.T.Y.  
Seat & Seat Belts, Air, Fire, Exit/Emergencies,  
Traffic & Talking, Your Questions?  
SEATS & SEAT BELTS..... LOCKED / FASTENED  
MASTER (bat & alt).....OFF  
AVIONICS MASTER .....OFF  
FUEL SELECTOR ..... LEFT or RIGHT  
FRESH AIR FAN .....OFF  
CIRCUIT BREAKERS ..... CHECK  
CARB HEAT .....OFF  
THROTTLE ..... CLOSED  
MASTER (bat & alt).....ON  
BEACON.....ON  
NAV LIGHTS ..... AS REQ

### **ENGINE START**

BRAKES .....SET / HOLD  
MIXTURE ..... RICH / FULL FWD  
COLD ENGINE .....(max 3 pumps) PRIME AS REQ  
THROTTLE....2 FULL STROKES then CLOSED / 1/2 IN  
FUEL PUMP ..... ON / CHECK PRESSURE  
BRAKES.....HOLD  
PROP AREA.....CLEAR  
STARTER .....(8-10 seconds max) ENGAGE

### **\*\*WHEN ENGINE STARTS\*\***

THROTTLE..... 1000 – 1200 RPM  
OIL PRESSURE..... CHECK  
FUEL PUMP .....OFF  
FUEL FLOW..... CHECK  
MIXTURE ..... LEAN

### **AFTER START**

AVIONICS MASTER .....ON  
FRESH AIR FAN / HEATER / DEFROST .... AS REQ  
HEADSETS.....ON / CHECK  
ALTERNATOR OUTPUT ..... CHECK  
GPS / CDI .....CHECK  
GPS DATABASE CURRENCY..... CHECK / ENT  
COMS .....SET / ATIS  
ALTIMETERS ..... SET  
CLEARANCE (If IFR) ..... OBTAIN  
GPS ..... ENTER WPT/FPL/APR AS REQ  
NAVS.....SET / COURSE  
FLIGHT INSTRUMENTS..... CHECK / SET  
TRANSPONDER .....SET CODE / ALT MODE  
FLAPS.....CHECK / UP

### **TAXI**

Do Not Ride Brakes

AIRPORT DIAGRAM ..... AVAILABLE  
TAXI CLEARANCE ..... OBTAIN / BRIEF  
TAXI AREA.....(left & right) CLEAR  
BRAKES ..... RELEASE / CHECK  
FLIGHT INSTRUMENTS..... CHECK

Check in turns.

STERILE COCKPIT ..... NO NONESSENTIAL TALKING

### **\*\*Pre-Takeoff Emergency Brief\*\***

Engine Failure on runway

THROTTLE ..... IDLE  
BRAKES ..... APPLY  
STOP STRAIGHT AHEAD

Engine Failure After Rotation

THROTTLE ..... IDLE  
PITCH FOR BEST GLIDE ..... 73  
CONTINUE STRAIGHT AHEAD

At or above 1000ft AGL – Turn around point  
TURN TO AIRPORT

### **RUN UP**

BRAKES.....SET / HOLD  
FUEL PUMP .....ON  
FUEL GAUGES / QTY ..... CHECK  
FUEL SELECTOR .....SWITCH TANKS  
CONFIRM BOTH TANKS ARE WORKING

MIXTURE .....FULL FWD  
THROTTLE..... 2000 RPM  
MAGNETOS .... (175 max drop, mas diff. 50) CHECK  
OIL TEMPERATURE & PRESSURE ..... CHECK  
VACUUM ..... 5.0 Hg +/- 0.1  
ANNUNCIATOR PANEL ..... TEST  
AMPS.....CHECK  
FUEL PUMP .....OFF  
FUEL PRESSURE ..... CHECK  
CARB HEAT .....ON  
THROTTLE.....IDLE  
CARB HEAT .....OFF  
THROTTLE..... 1000 RPM  
MIXTURE .....LEAN  
FLIGHT CONTROLS .....FREE / CORRECT  
TRIM.....SET  
BRAKES.....RELEASE

### **BEFORE TAKEOFF**

**\*\*TAKE OFF / EMERGENCY PLAN\*\*..... BRIEF**  
FUEL SELECTOR .....(FULLEST TANK) PROPER TANK  
FLIGHT INSTRUMENTS ..... CHECK  
ENGINE GAUGES ..... CHECK  
PRIMER .....LOCKED  
MASTER SWITCH ..... CONFIRM ON  
FUEL PUMP ..... ON / CHECK PRESSURE  
*START 30 MINUTE TIMER*

CARB HEAT .....OFF  
FLAPS.....VERIFY SET  
SEATBACKS.....SECURE  
SEATS & SEAT BELTS .....LOCKED / FASTENED  
Final items when #1 for takeoff  
*L Flow – Left to Right*

DOOR .....CLOSE / LOCKED  
LANDING LIGHT.....ON  
STROBE.....AS REQ  
TRANSPONDER.....VERIFY ALT / SET  
MIXTURE .....SET

## TAKE OFF

THROTTLE ..... FULL  
 ROTATE ..... 43-55 KTS  
 YOKE ..... APPLY BACK PRESSURE / ESTABLISH CLIMB  
 CLIMB ..... 70 - 80 KTS  
 $V_x$  - 63 KTS /  $V_y$  - 79 KTS

## AFTER TAKEOFF

Above 1000 AGL

CRUISE CLIMB ..... 79 KTS  
 THROTTLE ..... FULL  
 FLAPS UP ..... CHECK  
 MIXTURE ..... LEAN ABOVE 3000' MSL

## CRUISE

THROTTLE ..... SET  
 2300-2400 RPM LOCAL / 75% BHP FOR XC  
 ENGINE / SYSTEM INSTRUMENTS ..... CHECK  
 FUEL SELECTOR ..... PROPER TANK  
 FUEL PUMP ..... OFF / CHECK PRESSURE  
 LANDING LIGHT ..... OFF  
 MIXTURE ..... LEAN

V Speeds	KDWH Frequencies
$V_R$ ..... 50	Ground ..... 121.8
$V_y$ ..... 79	Tower ..... 118.4
$V_x$ ..... 63	Unicom ..... 122.95
$V_{FE}$ ..... 103	West Practice ..123.5
$V_A$ ..... 111	ATIS ..... 128.375
$V_{NO}$ ..... 126	Hou App NW ...119.7
$V_{NE}$ ..... 160	Hou App SW ....123.8
$V_G$ ..... 73	Max Demo Xwind.17

## DESCENT

For XC use  
 ATIS / AWOS ..... CHECK  
 APPROACH BRIEFING ..... COMPLETE  
 ALTIMETER ..... SET  
 CARB HEAT ..... AS REQ  
 THROTTLE ..... AS REQ  
 MIXTURE ..... SLIGHTLY ENRICH

## APPROACH (15NM FROM AIRPORT)

ATIS / AWOS ..... CHECK  
 APPROACH BRIEFING ..... COMPLETE  
 ALTIMETER ..... CHECK  
 FUEL PUMP ..... ON  
 FUEL SELECTOR ..... PROPER TANK  
 MIXTURE ..... SLIGHTLY ENRICH  
 PARKING BRAKE ..... OFF  
 LANDING LIGHT ..... ON

When direct to IAF or Vectored  
 FLIGHT & NAV Instruments ..... SET / IDENT  
 CDI KEY ..... VLOC / GPS  
 AIRSPEED ..... 90 KTS

## BEFORE LANDING CHECKLIST

### G.U.M.P.S.

FUEL SELECTOR ..... PROPER TANK  
 MIXTURE ..... SET FOR ALT / FULL RICH  
 FUEL PUMP ..... ON  
 CARB HEAT ..... ON  
 POWER ..... AS REQ  
 SEAT BELTS / SWITCHES ..... CHECK  
 FLAPS ..... ( $V_{FE}$  103) AS REQ

## GO AROUND / MISSED APPROACH

"Cram, Climb, Clean, Click, Call"

THROTTLE ..... FULL FWD  
 CARB HEAT ..... OFF  
 FLAPS 25 ..... IMMEDIATELY  
 PITCH ..... 60 KTS / PITCH FOR CLIMB  
 FLAPS 10 ..... POS RATE, OBST CLEARED, 70 KTS  
 FLAPS UP .... AFTER REACHING SAFE ALT 76 KTS  
 Fly assigned or published heading & altitude

## AFTER LANDING

When aircraft is stopped  
 GROUND OR ASSIGNED FREQ ..... CHECK  
 FLAPS ..... UP  
 CARB HEAT ..... OFF  
 FUEL PUMP ..... OFF  
 MIXTURE ..... LEAN  
 TAXI CLEARANCE ..... OBTAIN / BRIEF

## SHUTDOWN

CALL FOR FUEL @ KDWH ..... 122.95  
 TRANSPONDER ..... 1200 / VFR  
 AVIONICS MASTER ..... OFF  
 THROTTLE ..... 1000 RPM  
 MIXTURE ..... CUTOFF

*When Propeller stops*

MAGNETOS ..... OFF  
 MASTER SWITCH ..... OFF  
 ELECTRICAL SWITCHES ..... OFF  
 HOBBS / TACH ..... RECORD

Secure aircraft, tiedown and walk around.  
 Note and record squawks

\*Speeds from the original POH were given in MPH. They were converted to knots for this checklist and rounded up.

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This checklist is for reference. It is not intended to replace the POH / AFM.



## PIPER WARRIOR II - PREFLIGHT

### CABIN

Walk up to aircraft ..... INSPECT FOR DAMAGE  
Oil Level ..... CHECK  
Pitot Tube Cover ..... REMOVE  
HOBBS ..... RECORD  
POH ..... IN-AIRCRAFT  
UFS clip board and keys ..... IN-AIRCRAFT  
Check List ..... IN-AIRCRAFT  
Air Worthiness Certificate ..... IN-AIRCRAFT  
Registration ..... IN-AIRCRAFT  
GPS Reference Guide ..... IN-AIRCRAFT  
Weight and Balance ..... CHECKED  
Parking Brake ..... SET  
Control Wheel ..... RELEASE BELTS  
Magneto Switch ..... OFF  
Avionics Switch ..... OFF  
Circuit Breakers ..... IN

### POWER

Master Switch (Batt) ..... ON  
Fuel Qty (R & L) ..... CHECK  
Avionics ..... ON  
Avionics Fan (If Installed) ..... VERIFY ON  
GPS data base ..... VERIFY CURRENT  
Avionics Switch ..... OFF  
Annunciator Panel ..... TEST  
Beacon ..... ON  
Navigation Lights ..... ON  
Taxi/Landing Lights ..... ON  
Pitot Heat ..... ON  
**VERIFY LIGHTS, PITOT HEAT, STALL WARNING**

### POWER - CONTINUED

Navigation Lights ..... OFF  
Taxi/Landing Lights ..... OFF  
Pitot Heat ..... OFF  
Master Switch ..... OFF  
Elevator Trim Control ..... TAKEOFF  
Fuel Selector Valve ..... LEFT or RIGHT  
Alternate Static Air Valve ..... CHECK FORWARD  
Fire Extinguisher ..... CHECK  
Flaps (Extend One Notch at a Time) ..... EXTEND

### RIGHT WING

Flap ..... CHECK  
Aileron ..... CHECK  
Wing Tip ..... CHECK  
Leading Edge ..... CHECK  
Fuel Quantity ..... CHECK VISUALLY  
Fuel Filler Cap ..... SECURE  
Right Tire ..... CHECK  
Right Brake ..... SECURE/WEAR INDICATOR  
Right Brake Line ..... NO LEAKS  
Right Main Gear Strut ..... SECURE  
Right Wing Fuel Sump ..... DRAIN  
Right Wing Tiedown ..... REMOVE and STOW  
Right Wing Cabin Air Intake ..... CHECK

### NOSE

Cowling ..... CHECK / SECURE  
Engine Oil Dipstick/Filler Cap ..... CHECK  
Engine Cooling Air Inlets ..... CLEAR  
Prop and Spinner ..... CHECK  
Alternator Belt ..... CHECK TENSION  
Nosewheel Strut and Tire ..... CHECK  
Air Intake ..... CHECK  
Nose Sump (pilot side) ..... DRAIN  
Windscreen ..... CHECK (CLEAN)

### LEFT WING

Left Wing Cabin Air Intake ..... CHECK  
Fuel Quantity ..... CHECK VISUALLY  
Fuel Filler Cap ..... SECURE  
Left Tire ..... CHECK  
Left Brake ..... SECURE/WEAR INDICATOR  
Left Brake Line ..... NO LEAKS  
Left Main Gear Strut ..... SECURE  
Left Wing Fuel Sump ..... CHECK  
Left Wing Tiedown ..... REMOVE and STOW  
Leading Edge ..... CHECK  
Wing Tip ..... CHECK  
Static Wicks (if installed) ..... SECURE  
Aileron ..... CHECK  
Flap ..... CHECK

### LEFT FUSELAGE

Body ..... STRAIGHT  
COM/GPS/VOR Antennas ..... CHECK  
Data Plate ..... CHECK

### RUDDER

Stabilator / Trim ..... CHECK  
Tail Tiedown ..... REMOVE  
Rudder ..... CHECK  
Static Wicks (If Installed) ..... SECURE

### RIGHT FUSELAGE

Body ..... STRAIGHT  
Baggage Door ..... SECURE

# N6199B – PIPER WARRIOR II

## EMERGENCY PROCEDURES

### ENGINE FIRE DURING START ON GROUND

#### IF ENGINE HAS NOT STARTED

MIXTURE ..... IDLE CUTOFF  
THROTTLE ..... OPEN  
STARTER ..... CRANK  
ELECTRIC FUEL PUMP ..... OFF  
**ABANDON IF FIRE CONTINUES**

### ENGINE FIRE IN FLIGHT

SOURCE OF FIRE ..... CHECK

#### ELECTRICAL FIRE

MASTER SWITCH ..... OFF  
VENTS ..... OPEN  
CABIN HEAT ..... OFF

#### LAND AS SOON AS PRACTICABLE

#### ENGINE FIRE

FUEL SELECTOR ..... OFF  
THROTTLE ..... CLOSED  
MIXTURE ..... IDLE CUTOFF  
ELECTRIC FUEL PUMP ..... OFF  
HEATER and DEFROSTER ..... OFF  
**(PROCEED WITH POWER OFF LANDING PROCEDURE)**

### ENGINE POWER LOSS DURING TAKEOFF

#### SUFFICIENT RUNWAY REMAINING

##### LAND STRAIGHT AHEAD

#### INSUFFICIENT RUNWAY REMAINING

- MAINTAIN SAFE AIRSPEED
- MAKE ONLY SHALLOW TURNS TO AVOID OBSTRUCTIONS
- FLAPS AS SITUATION REQUIRES

### SUFFICIENT ALTITUDE GAINED

MAINTAIN SAFE AIRSPEED  
FUEL SELECTOR ..... FULLEST FUEL TANK  
ELECTRIC FUEL PUMP ..... CHECK ON  
MIXTURE ..... CHECK RICH  
CARB HEAT ..... ON  
Primer ..... CHECK LOCKED  
*(If Power is Not Regained, Proceed with Power Off Landing)*

### ENGINE POWER LOSS IN FLIGHT

BEST GLIDE ..... 73 KIAS  
FUEL SELECTOR ..... FULLEST FUEL TANK  
ELECTRIC FUEL PUMP ..... ON  
MIXTURE ..... RICH  
CARB HEAT ..... ON  
ENGINE GAUGES ..... CHECK  
*(for indication of cause of power loss)*  
Primer ..... CHECK LOCKED  
*(If NO fuel pressure is indicated, check tank selector position to be sure it is on a tank containing fuel)*

### WHEN POWER IS RESTORED

CARB HEAT ..... OFF  
ELECTRIC FUEL PUMP ..... OFF  
*(if power is NOT restored, prepare for a power off landing)*

#### TRIM FOR 73 KIAS

### POWER OFF LANDING

#### FLY TO SUITABLE LANDING FIELD

BEST GLIDE ..... 73 KIAS  
Ignition Switch ..... OFF  
Master Switch ..... OFF  
Fuel Selector ..... OFF  
Mixture ..... IDLE CUTOFF  
Seatbelt and Harness ..... TIGHT  
Doors ..... UNLATCH PRIOR TO TOUCHDOWN

### LOSS OF OIL PRESSURE/HIGH OIL TEMP

Land as soon as possible and investigate the cause. Prepare for power off landing.

### LOSS OF FUEL PRESSURE

Electric Fuel Pump ..... ON  
Fuel Selector ..... CHECK ON FULL TANK

#### ALTERNATOR FAILURE

VERIFY FAILURE ..... ALT ANNUNCIATOR ILLUMINATED

#### AMMETER SHOWS ZERO

Alt Switch ..... OFF  
*REDUCE ELECTRICAL LOAD AS MUCH AS POSSIBLE*  
Alternator Circuit Breakers .. CHECK & RESET  
Alt Switch ..... ON  
**IF POWER NOT RESTORED**

Alt Switch ..... OFF  
*REDUCE ELECTRICAL LOAD and LAND AS SOON AS POSSIBLE*

#### ENGINE ROUGHNESS

CARB HEAT ..... ON  
**IF ROUGHNESS CONT. AFTER 1 MINUTE**  
CARB HEAT ..... OFF  
MIXTURE . ADJUST FOR MAX SMOOTHNESS  
ELECTRIC FUEL PUMP ..... ON  
FUEL SELECTOR ..... SWITCH TANKS  
ENGINE GAUGES ..... CHECK  
MAGNETO SWITCH .. "L" then "R" then BOTH

*If operation is satisfactory on either one, continue on that MAG at reduced power and full "RICH" mixture to first airport.*

### PREPARE FOR POWER OFF LANDING

#### SPIN RECOVERY

Throttle ..... IDLE  
Ailerons ..... NEUTRAL  
Rudder ..... FULL OPPOSITE to direction of rotation  
Control Wheel ..... FULL FORWARD (to break stall)  
Rudder ..... NEUTRAL (when rotation stops)  
Control Wheel ..... AS REQ TO SMOOTHLY REGAIN LEVEL FLIGHT ATTITUDE