



1976 Piper PA-28-151 Warrior

N6919J Operational Checklist



- Remove all traces of snow, ice and frost from aircraft
- Park aircraft in level attitude for accurate fuel sampling

Engine: Lycoming O-360-A4M -180HP Conversion

Oil: 8 qts. total (6 qts. minimum)

Avg Oil Burn Rate: 1 qt every 8 TACH Hours

Aeroshell 100+ (summer) Aeroshell 80+ (winter)

Fuel: 100LL, 100/130

Standard Tank: 50 Gallons Total (25/side)
48 Useable

Useable at Tabs: 34 Gallons (17/side)

MTOW/MLW: 2325 LBS (Normal) 1950 (Utility)

Electrical Syatem: 14V Direct Current
12V Battery
60A Alternator

Flaps: 1st-10° 2nd-25° 3rd-40°

Tire Pressure: 24 PSI (Main), 30 PSI (Nose)

Ground Static RPM: 2100-2200 RPM

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Emergency Contact:

CAA Office	678-686-9086
Capt. Rohan Bhatia	404-775-8299

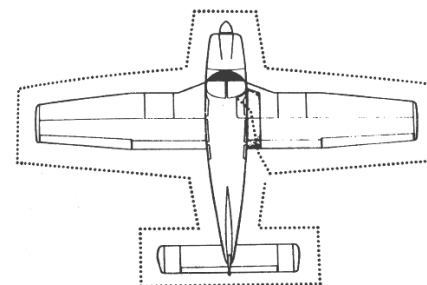
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Pre-flight Inspection

Cabin

- Control Lock - Remove
- AROW
- Hobbs/Tach
- Fire Extinguisher
- Parking Brake -Set
- Flight Controls - Correct
- Stabilator and Rudder Trim Tabs - ✓
- Ignition, Avionics Master, Fan - Off
- Battery Master Switch (ALTERNATOR OFF) - On
- Fuel Gauges - ✓
- Lights and Pitot Heat ✓ Then Off
- Master Switch - Off
- Flaps - Full Down



Right Wing

- Flap, Aileron, Wing Tip, Lights
- Leading Edge
- Air Inlets
- Strut (4.5 in), Tire (24 psi) and Brake
- Fuel Vent
- Fuel Sump
- Fuel Level

**C
H
E
C
K**

Nose

Windshield

Engine Oil (Min 6 Qts.)

Cowling Latches

Prop and Spinner

Alternator Belt

Air Filter

Strut (3.25 in), Nose Wheel (30 psi)

Fuel Sump (2x - with selector on each tank)

Cowling Latches

Left Wing

Air Inlet

Strut (4.5 in), Tire (24 psi) and Brake

Fuel Vent

Pitot Tube, Drain, and Static Port

Fuel Sump

Fuel Level

Stall Warning Device

Leading Edge

Lights, Wing Tip, Aileron, Flap

Empennage

Stabilator

Vert. Stab & Rudder

Antennas & Lights

Baggage Door

Final Items

All Tie-downs and Chocks - Remove

Final General Overview

Passenger Briefing

Passenger Briefing

Seatbelts / harness / headset

Airsickness / comfort/ air vents

Fire safety

Escape routes/ door and window operation

Survival Gear

Traffic

Starting Engine

Seat Belts and Seats - Secure and Upright

Brakes - Test and Set (parking brake off)

Primer - In And Locked

Battery Master - On (Alternator Off)

Fuel Valve (check movement) - Lowest Tank

Beacon/Anti-Collision - On

Carb Heat - Off

Circuit Breakers - In

Avionics Master - Off

Cold Start (above 60 deg. F)

Mixture - Full Rich

Throttle- Pump 1 to 3x then
¼ in. forward

Fuel Pump - On

Cold Start (below 60 deg. F)

Mixture- Full Rich

Primer- 3 to 6x as reqd.

Throttle: Pump 1 to 3x then
¼ in. forward

Fuel Pump- On

Hot Start

Mixture - Full Rich

Throttle ½ in. forward

Fuel Pump - On

Flooded Start

Mixture - Full Lean

Throttle - Full In

Fuel Pump - Off

Ignition (No more than 10 secs max) - Start

If engine does not start within 5-10 secs, prime & repeat start procedure with a 20 sec delay. After 3x, wait 2 min.

Oil Pressure (30 secs. normal, 1 min cold temp)

Alternator - On (Check Output)

Fuel Pump - Off (✓ Press)

Avionics Master - On

Mixture - Lean For Taxi

Landing Lights - On

Nav Lights (Night Only) - On

Altimeter and Heading - ✓

Transponder - ALT



Engine Fire During Start



Starter - Continue cranking

Mixture - Idle/ Cut-off

Throttle - Full Open

Fuel Pump and Fuel Selector- Off

If Engine Starts, run for a few mins then shut down

Run-up

Doors and Windows - Locked

Flight Controls - Free

Stabilator and Rudder Trim - Set

Fuel Selector - Switch Tanks (Fullest Tank)

Mixture - Rich

Throttle (check throttle friction lock) - 2000 RPM

Suction (5.0" ± 0.1" Hg)

Oil Temp (75 - 245 degrees F)

Oil Pressure (60-90 psi)

Fuel Pressure (0.5-8 psi)

Fuel Gauges

Magnetos* (175 RPM Max Drop, 50 RPM's Max diff.)

-Do not run on single mag for more than 10 seconds-

Ammeter - About 20 Amps

Annunciator Panel - Press to ✓

Carb Heat - Cycle

Throttle - Idle

Carb Heat - Cycle

Throttle - 1000 RPM

Attitude, Altimeter, Heading, VSI ✓

---Continue with Take-off Checklist---

*** Magneto Malfunction Checklist ***

-No RPM drop-

Flight termination and inspection advised

-Excessive mag drop-

Power up to 2300 rpm and lean mixture until slight power loss, then enrichen slightly. Wait 30 secs - enrichen mixture then recheck mags at 2000 RPM.

Take-off

Fuel Selector - Fullst Tank
 Flaps (0 Normal, 25 Deg. for Short and Soft) - Set
 Mixture - Rich
 Carb Heat - Off
 Fuel Pump - On (✓ Press)
 Landing and Strobe Lights - On
 Transponder - ALT
 Parking Brake - Off
 Crew Briefing - a/c config, wx, terrain, emergency, IFR
**** If Flaps 25 Are Used Vx Of 57 kts****

Climb / 1,000 agl

Flaps - Up
 Airspeed - 87 kts
 Fuel Pump - Off (Check Pressure)

Cruise

Throttle - Less than 2400 rpm
 Mixture - Slowly Lean
 Fuel Pump - Off (On only when switching tanks)
 Engine Gauges / Flight Instruments
 Lights - As Rqd
 Heading Indicator

Pre-Maneuver

Fuel Pump - On (✓ Press)
 Mixture - Slowly Rich / As Rqd
 Clearing Turns (Emergency - Traffic - 1,500+ agl)

Approach and Landing

Seat Belts and Seats - Secure and Upright
 Heading Indicator
 Fuel Selector
 Mixture - Rich / As Rqd
 Fuel Pump - On (✓ Press)
 Landing Lights and Strobes - On
 Flaps - Down as Required
 Landing Airspeed - 65 kts Flaps down, 70 kts Flaps up
 Crew Briefing - procedure, terrain, go around
In strong winds, use minimum flaps for field length

After Landing

Flaps - Up
 Carb Heat - Off
 Fuel Pump - Off (✓ Press)
 Strobes - Off
 Mixture - Lean For Taxi

Shut Down

Throttle
 Fuel Pump
 Nav/ Landing/ Panel Light
 Avionics Master
 Mixture
 Ignition
 Master Switch
 Control Lock, Pitot Cover & Sunshades - Replace
Close Flight Plan if required

Off

V-Speeds

All Speeds in KIAS

V_r (Rotation Speed) 60
 V_x (Best Angle) 66
 If Flaps 25 are used for soft/short- use Vx of 57
 V_y (Best Rate) 75
 V_a (Maneuvering Speed) 107
 V_s (Stall - No Flaps) 56
 V_{so} (Stall - Full Flaps) 50
 V_{fe} (Max Flaps Extended) 100
 V_{no} (Max Normal Operating) 121
 V_{ne} (Never Exceed) 153
 V_{glide} (Best Glide) 69
 Maximum Demonstrated Crosswind 17

Transponder

Emergency: 7700 Lost Coms: 7600 Hijack: 7500

Light Gun Signals

Color and Type of Signal	Movement of Vehicles, Equipment, and Personnel	Aircraft on the Ground	Aircraft in Flight
Steady Green	Cleared to cross, proceed, or go	Cleared for takeoff	Cleared to land
Flashing Green	Not applicable	Cleared for taxi	Return for landing (to be followed by steady green at the proper time)
Steady Red	STOP	STOP	Give way to other aircraft and continue circling
Flashing Red	Clear the taxiway/runway	Taxi clear of the runway in use	Airport unsafe, do not land
Flashing White	Return to starting point on airport	Return to starting point on airport	Not applicable
Alternating Red and Green	Exercise Extreme Caution!!!	Exercise Extreme Caution!!!	Exercise Extreme Caution!!!

Emergency Procedures



Engine Gauges - ✓

Carb Heat - On

-If roughness continues after one minute-

Carb Heat - Off

Mixture - Enrich or Lean for smooth operation

Fuel Pump - On (Check Pressure)

Primer - Locked

Fuel Selector - Switch Tanks

Individual Mags ✓

If operation on a single mag. is satisfactory- use that mag., reduce power, en-richen mixture and land

Engine Failure / Air Restart



A –Airspeed 75 kts

B - Best Place to Land

C – Checklist

Fuel Pump - On ✓ Pressure)

Fuel Selector - Switch Tank

Mixture - Rich

Carb Heat - On

Primer - In and Locked

Ignition - Both / or Start if prop stopped

If no start- Switch to single MAG and try restart

D – Declare - 121.5 / Current Freq / Squawk 7700

Securing Engine

Fuel Pump

Mixture

Throttle

Fuel Selector

Ignition

Cabin Heat / Vent

Off

Emergency Procedures

Off Airport Landing

Seat Belts and Seats - Secure and Upright

Master Switch - Off before impact

Cabin Doors - Unlatch/ Slightly Open

When Field is Made - 65 kts

Land.....Tail Low at Lowest Possible Airspeed

If In Water

Approach

High Winds, Large Waves- UPWIND

Light Winds, Large Waves- PARALLEL TO WAVES

IMPACT WILL BE HARSH!! PROTECT HEAD AND FACE

Electrical Overload



If more than 20 amps above known electrical load:

Avionics Master - Off

Alternator Master Switch - Off

Battery Master Switch - On

**Compass errors up to 25 degrees may occur
with alternator disabled.**

Low Voltage / Alternator Failure



Avionics Master - Off

Alternator Circuit Breaker - Check In

Master Switch (Both Battery and Alternator) - Recycle

Avionics Master - On

**If Low Voltage Light illuminates again, turn alternator
/ all nonessential electrical equip off**

Emergency Procedures

Blocked Static Pressure



Pitot Static Drain Valves - Press and Check

Pitot/Static Heat - On

Alternate Static Switch - On

If no change and if needed, break VSI window

WARNING

- Keep window, heater & outside vents closed
- Expect erroneous instrument indications

In-Flight Icing



Pitot Heat - On

Altitude - Change for higher OAT and less moisture

Throttle - Adjust to prevent buildup

Carb Heat - On as Required

Mixture (if Carb Heat is Used) - Lean for Max RPM

Cabin Heat / Defrosters - On

Flaps - Up

Airspeed - 80-90 kts min

Landing (longest runway) ASAP

Flaps - Keep up for landing

Flare - Flat as possible

MISSED APPROACH IS NOT RECCOMENDED

**IF ICE BUILD-UP IS EXTREMELY RAPID, IT IS
ADVISABLE TO LAND ANYWHERE SUITABLE**

**IF ICE ACCUMULATION IS ¼ INCH OR MORE,
EXPECT A LARGE INCREASE IN STALL SPEED**



Emergency Procedures

Engine Fire



Fuel Selector
Throttle
Mixture
Fuel Pump
Master Switch
Cabin Heat/Air

} Off

Airspeed..... (To Extinguish Flame).....100+ KTS

Electrical Fire



Master Switch
Avionics Master
Vents/ Cabin Heat/ Air
Fire Extinguisher - Activate

} Off

When fire has been extinguished:

Vents/ Cabin Heat/ Air - Open

Wing Fire

All external lights - Off
Pitot Heat - Off

Perform sideslip to keep flames away from fuel tanks and cabin

Flaps - Only as required

Cabin Fire



Master Switch - Off
Vents/ Cabin Heat/ Air - Closed
Fire Extinguisher - Activate

When fire has been extinguished:

Vents/ Cabin Heat/ Air - Open