### PA-28 Warrior

# Preflight Inspection Cockpit

Aircraft docs (AROW) Check Weight & Balance Check Control wheel Release belt **Down** Flaps Hobbs Note time Avionics Power Switch Off Ignition Off Master Switch On Fuel quantity indicators Check On & Check Liahts Stall warning Check Master Switch Off

#### Right wing

Check Flaps Aileron Free & Secure Wing leading edge/surface Clean Wing tie-down Removed Inflated / condition Main tire 4.5" Main gear strut **Brakes** Check & No Leak Fuel tank vent Check Fuel tank sump **Sample Fuel Quantity** Check Fuel Filler cap Secure

#### **Nose**

Engine oil level	8 qts
Cowling	Secure
Propeller and spinner	Check
Alternator belt	Check
Engine cooling intake	Clear
Carburetor Air Filter	Clear
Nose wheel strut & tire	3.25"
Fuel strainer	Sample

#### KSPG Frequencies:

ASOS	118.87
Ground	121.80
Tower	127.40
TPA Approach	119.65

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#### **Left Wing**

Wing leading edge/surface Clean Free & Secure Aileron Check Flaps Wing tie-down Removed Pitot / static mast clear Main tire Inflated / condition Main gear strut 4.5" **Brakes** Check & No Leak Fuel tank vent Check Fuel tank sump Sample **Fuel Quantity** Check Fuel Filler cap Secure

#### **Empennage**

Tail Tie-Down
Control surfaces
Trim Tab
Antennas
Check Security
Check Security
Baggage Door
Closed & Locked

#### **Before starting engine**

Preflight inspection Complete Passenger Briefing Complete Adjust & Lock Seats, belts Doors Closed & Locked Brakes Test and set Circuit breakers Check In Electrical Equip/Autopilot Off Alt Static Off Avionics Power Switch Off Fuel Selector **Fullest tank** Flaps Up



## **PA-28 Warrior**

#### **Starting Engine**

Brakes	Hold
Master / Alternator	Switch On
Fin Strobe Light	On
Carb heat	Off
Fuel Pump	On
Mixture	Rich or DA
Prime	1-3 pumps
Throttle C	old 1/4" / Hot 1/2"
Propeller area	Clear
Ignition	Start
Throttle	1000 rpm
Oil Pressure	Check normal
Mixture	Lean for Taxi
Flaps	Up
Fuel Pump	Off
Avionics Master S	witch On
Transponder	Alt and 1200
Ammeter	Check charge
ATIS/AWOS/ASO	S Obtain
Altimeter	Set
Clearance/Ground	Contact

#### Run-Up

Brakes Cabin doors	Set Closed & Locked
Flight controls	Free & Correct
Flight Instrume	
Fuel Quantity	Check
Fuel Selector	Switch Tanks
Elevator Trim	Set for TAKEOFF
Mixture	Rich
Throttle	2000 rpm
Ammeter	Check
Magnetos	max 175rpm drop
Carb heat	On
Throttle	Idle
Carb heat	Off
Throttle	1000 rpm
Fuel Pressure	Check
Throttle Friction	Lock Adjust
Annunciator Pa	nel <b>Test</b>
Radios/Avionics	s/GPS <b>Set</b>

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Before Take-Off	
Mixture	Rich or DA
Fuel Pump	On
Fuel Selector	<b>Fullest Tank</b>
Magnetos	Both
Flaps	Set
Carb heat	Off
Trim	Set for T/O
Radios/Avionics/GPS	S Set
Transponder	Set
Seats, belts	djust & Lock
Windows and doors	Closed
Lights	As Req'd
Departure Brief	briefed

#### Cruise

Landing Lights	OFF
Throttle	2200-2600 RPM
Fuel Pump	Off at safe altitude
Mixture	Adjust (abvove 3,000)
Trim	Set

#### **Pre-landing checklist**

On
Fullest Tank
Rich below 5000'
Fastened
As Req'd
63 KIAS (Flaps Full)

#### **After landing**

Flaps	Up
Carb Heat	Off
Lights	As Req'd
Mixture	Lean for taxi
Fuel Pump	Off
Radio	Taxi clearance

#### **Shut Down**

Throttle	1000 RPM
Lights	Off
Avionics	Off
Mixture	Cut-off
Ignition	Off
Keys	Removed
Master Switch	Off
Hobbs	Record

#### **Short field take-off**

Mixture Rich or DA Fuel Pump On Fuel Selector **Fullest Tank** Magnetos **Both Flaps** 25° Carb heat Off Trim Set for T/O Radios/Avionics/GPS Set Transponder Set Seats, belts **Adjust & Lock** Windows and doors Closed As Reg'd Liahts Departure Brief **Briefed** Taxi Max runway **Brakes** Set and hold Throttle Full **Engine Gauges** Release **Brakes** Check Climb **52 Kts** Flaps Retract when clear Airspeed **79 kts** 

#### **Soft field take-off**

Rich or DA
On
Fullest Tank
Both
25°
Off
Set for T/O
GPS Set
Set
Adjust & Lock
oors Closed
As Req'd
Briefed
keep rolling
in ground eff 79kts
retract

#### **Short field landing**

Fuel Pump On Fuel selector **Fullest Tank** Mixture Rich below 3000' Seatbelts **Fastened** Lights As Reg'd ATIS/AWOS/ASOS Checked 63 KIAS (Flaps Full) Airspeed Braking Heavy as required retract upon touchdown **Flaps** 

#### **Soft field landing**

Fuel Pump On Fuel selector **Fullest Tank** Mixture Rich below 3000' Seatbelts **Fastened** As Reg'd Lights ATIS/AWOS/ASOS Checked 63-68 KIAS (Flaps Full) Airspeed Touchdown Main first, softly Landing roll Nose wheel up Elevator Up **Braking** As required

#### **Go-around**

Throttle Full
Carb Heat Cold (In)
Flaps slowly retract
Airspeed Accelerate to 75

V-Speed in kts		
Rotate	$V_{\rm r}$	45-55
Normal	V <sub>climb</sub>	87
Climb Out		
Max	V <sub>x</sub>	63
angle		
(no flaps)		
Climb	$V_{y}$	79
rate		
(no flaps)		
Maneuver	Va	88-111
Norm.		50-126
oper.		
range		
Flaps	$V_{fe}$	103 111
Maneuver	$V_{no}$	111
max		
Never	V <sub>ne</sub>	<u>160</u>
exceed		
Stall	Vs	50
(clean)		
Stall	V <sub>so</sub>	44
(dirty)		
Final	Flaps	63
Approach	N. (1	70
	No flaps	70
Glide	Vg	73

#### **Engine Fire during start**

Crank Continue
Mixture Idle Cut-off
Throttle full
Fuel Pump Off
Fuel Selector Off
Engine Shut down and inspect

#### **Engine Fire during flight**

Mixture Idle Cut-off
Throttle full
Fuel Pump Off
Fuel Selector Off
Heater Off
Defroster Off

#### **Electrical failure**

Load meter Verify
Alternator Off
Reduce load to minimum
Breaker/alt Check & Reset
Alternator On
If still no power:
Alternator Off
Reduce load and land

#### Electrical overload

Master Switch Off
All on/off appliances Off
Master Switch On
turn on appliance one at a time
Over-voltage light Off
or TERMINATE flight ASAP

#### **Spin Recovery**

Throttle IDLE
Ailerons NEUTRAL
Rudder Full opposite
Control wheel smoothly forward
Pitch Level when AS >63kts

#### **Engine Roughness**

Carb Heat On
Magnetos Check
Mixture Adjust
Fuel Pump On
Fuel Tank Switch
If operating on one Magneto:
Iow RPM & Full rich

## **Engine Failure**

#### **DURING FLIGHT**

Airspeed 73 KIAS LOOK FOR A FIELD!

Fuel selector valve
Primer
In & Locked
Ignition
Fuel Pump
On
Mixture
Carb heat
Mayday
Mayday
Fullest Tank
In & Locked
In & Loc

#### If no engine restart possible:

Fuel selector valve Off Off **I**anition Fuel Pump Off Idle Cut-off Mixture Flaps As Required Master switch Off Seatbelts **Fastened** Door Crack open

#### ON TAKEOFF

Power Idle
Brakes Apply
Centerline Maintain
Mixture Cut off
Mags Off
Master switch Off

#### AFTER TAKEOFF

Yoke push forward Airspeed 73 KIAS (flaps UP) Fuel selector valve Off Ignition Off Fuel Pump Off Mixture **Idle Cut-off** Mags Off Master switch Off Flaps As Required Door Crack open

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