PA-28-180D NORMAL PROCEDURES CHECKLIST

PREFLIGHT INSPECTION

CABIN:

AROW DOCS	ABOARD
Hobbs / Tach Times	RECORDED
Radio Master Switch	VERIFY OFF
Ignition Switches Left & Right	VERIFY OFF
Master Switch	ON
Circuit Breakers	CHECKED
Beacon	ON
Flaps	EXTEND
Fuel Quantity Indicators	CHECKED
Fuel Selector Valve	DESIRED TANK
Master Switch	OFF

RIGHT WING:

Flap	CHECKED
Aileron	CHECKED
Wingtip lights	CHECKED
Wing Leading Edge	CHECKED
Wing Tie down	VERIFY REMOVED
Fuel Tank Vent	UNOBSTRUCTED
Right Main Landing Gear / Tire	CHECKED
Sump Drain	SAMPLED
Fuel Quantity	CONFIRM VISUALLY
Fuel Cap	SECURED
Fresh Air Inlet	CHECKED

NOSE:

Cowling Latches Right Side	SECURED
Oil Quantity	CHECKED
Windshield Condition	CHECKED
Engine air inlets	CHECKED
Prop / Spinner	CHECKED
Nose Strut and Tire	CHECKED
Landing Light	CHECKED
Fuel Drain	SAMPLED
Cowling Latches Left Side	SECURED

LEFT WING:

Fresh Air Inlet	CHECKED
Left Main Landing Gear / Tire	CHECKED
Fuel Tank Vent	UNOBSTRUCTED
Sump Drain	SAMPLED
Fuel Quantity	CONFIRM VISUALLY
Fuel Cap	SECURED
Pitot Static Mast	INLET, DRAIN AND STATIC
Wing Leading Edge	CHECKED
Stall Warning Tab	CHECKED
Wingtip lights	CHECKED
Aileron	CHECKED
Flap	CHECKED

EMPENNAGE:

Stabilator	CHECKED
Trim Tab	CHECKED
Rudder	CHECKED
Tail Tie Down	REMOVED
VOR Antennas	CHECKED
Beacon / Nav Light	CHECKED
Baggage Compartment	SECURED

ENGINE START CHECKLIST

Preflight Inspection	COMPLETED
Passenger Briefing	COMPLETED
(Seatbelts / Doors / Vents)	
Seatbelts	ON
Fuel Selector Valve	DESIRED TANK
Master Switch	ON
Beacon	ON
Throttle	OPEN ¼ INCH
Primer	3 TO 5 STROKES & LOCKED
Mixture Control	FULL RICH
Carb Heat	OFF
Fuel Pump	ON
Brakes	SET AND HOLD
Propeller Area	CLEAR PROP
Ignition Switches Left & Right	ON
Starter Button	ENGAGED
Oil Pressure	CHECK GREEN AT 1,000 RPM

AFTER START CHECKLIST

Radio Master Switch	ON
Amp meter	CHARGING
GPS	CONTINUE, CONTINUE, MAP
Radios	AWOS CHECK
Altimeter	SET
G5 Heading Indicator	INITIALIZED
Attitude Indicator	SET
Flaps	RETRACT
Transponder	ALT / 1200
Fuel Pump	OFF
Brakes	TEST

BEFORE TAKEOFF CHECKLIST

Doors & Windows	CLOSED / LATCHED
Brakes	SET / HOLD
Flight Controls	CHECKED
Stabilator Trim	NEUTRAL
Flight Instruments	SET
Fuel Selector Valve	DESIRED TANK
Mixture	RICH
Throttle	2,000 RPM
Magnetos	CHECK
Ignition Switches Left & Right	VERIFY ON
Carb Heat	CHECK
Engine Instruments	GREEN
Suction Indicator	4.5-5.5
Amp Meter	CHARGING
Throttle	1,000 RPM
Friction Lock	AS REQ'D
Landing Light	ON
Anti-Collision lights	ON
Fuel Pump	ON
Takeoff Briefing	COMPLETED

"This will be a (LEFT/RIGHT) seat takeoff from runway ___, abnormalities on the roll we will abort, abnormalities on the initial climb we will land straight ahead on remaining runway, if no runway is available, we will select a suitable field ahead and execute an off-airport landing with the door to be unlatched before touchdown. After landing we will meet 50' behind the aircraft."

NORMAL TAKEOFF

Mixture	RICH
Fuel Pump	CONFIRM ON
Flaps	0°
Carb Heat	OFF
Throttle	FULL
Engine Instruments	CHECK
Airspeed	ALIVE
Rotate	60 MPH
Vy Climb	85 MPH
Fuel Pump/ Lndg Light	OFF PASSING 500 AGL

CRUISE CHECKLIST

Throttle	2400-2500 RPM
Mixture	LEAN TO PEAK RPM
Lights	AS REQ'D
Trim	SET
Fuel Selector	SWITCH TANKS 30-60 MINS

Fuel Pump ON for tank changes approx. 60 sec

BEFORE LANDING CHECKLIST

Seatbelts	SECURE
Mixture	ADJUSTED
Lights	AS REQ'D
Fuel Pump	ON
Fuel Selector Valve	DESIRED TANK
Flaps	AS REQ'D
Approach Speed	76 MPH W/ FLAPS
	85 MPH NO FLAPS

AFTER LANDING CHECKLIST

Flaps	RETRACT
Lights	AS REQ'D
Fuel Pump	OFF
Stabilator Trim	NEUTRAL

SHUT DOWN CHECKLIST

Throttle	IDLE
Radio Master Switch	OFF
Lights	OFF
Mixture	IDLE CUTOFF
Ignition Switches Left & Right	OFF
Master Switch	OFF
Hobbs / Tach Times	RECORDED

SHORT FIELD TAKEOFF

Mixture	RICH
Fuel Pump	ON
Flaps	SET 25°
Carb Heat	OFF

Align aircraft with centerline as close to runway edge as possible and hold brakes firmly

Throttle	FULL
Engine Instruments	CHECK
Brakes	RELEASED
Airspeed	ALIVE
Rotate	60 MPH
Vx Climb	74 MPH

Transition to Vy Climb upon clearing 50 foot obstacle

Vy Climb	85 MPH
Flaps	RETRACT
Fuel Pump	OFF PASSING 500 AGL

SHORT FIELD LANDING CHECKLIST

Seatbelts	SECURE
Mixture	ADJUSTED
Lights	AS REQ'D
Fuel Pump	ON
Fuel Selector Valve	FULLEST TANK
Flaps	40°
Approach Speed	76 MPH

Touch down firmly and avoid floating. Stop on the centerline ASAP.

SOFT FIELD TAKEOFF

Mixture	RICH
Fuel Pump	ON
Flaps	SET 25°
Carb Heat	OFF
Stabilator Control	FULL AFT

Keep the nosewheel off the runway surface throughout the takeoff roll.

Throttle	FULL
Engine Instruments	CHECK
Airspeed	ALIVE
Rotate	60 MPH

Remain in ground effect until achieving Vy Airspeed

Vy Climb	85 MPH

Upon reaching a safe maneuvering altitude

Flaps	RETRACT
Fuel Pump	OFF PASSING 500 AGL

SOFT FIELD LANDING CHECKLIST

Seatbelts	SECURE
Mixture	ADJUSTED
Lights	AS REQ'D
Fuel Pump	ON
Fuel Selector Valve	FULLEST TANK
Flaps	40°
Approach Speed	76 MPH

Touch down nose high, and hold nosewheel off

PA-28-180D EMERGENCY PROCEDURES CHECKLIST

ENGINE FAILURE IN FLIGHT CHECKLIST

Best Glide Speed	80 MPH
Trim	FOR 80 MPH
Mixture	RICH
Fuel Pump	ON
Carburetor Heat	ON
Primer	LOCKED
Throttle	CHECKED
Fuel Selector Valve	SWITCH TANKS
Ignition	CHECKED
Restart	ATTEMPT

If above listed items fail to remedy the engine failure…

Landing area	SELECT
Door	CRACK OPEN
Mixture	CUT OFF
Fuel Selector Valve	OFF
Ignition	OFF
Seatbelts / Harnesses	SECURE
Mayday Call	XMIT ON 121.50
Transponder	7700 / Ident
Forced Landing	EXECUTE

ENGINE FIRE IN FLIGHT CHECKLIST

Fuel Selector Valve	OFF
Throttle	IDLE
Mixture	CUT OFF
Fuel Pump	OFF
Cabin Vents/Heat/Defrosters	OFF/CLOSED
Seatbelts	ON
Forced Landing	EXECUTE

A steep dive angle achieving a high airspeed should be considered to help extinguish flames

Should flames or smoke obstruct forward vision, or should flames encroach upon the cockpit area, consider an aggressive side slip to direct flames out of the field of view and away from occupants until landing can be achieved.

FLOODED START CHECKLIST

Note: A flooded engine may be signified by a hesitation to start accompanied by the smell of fuel. Cease engine priming. Review this procedure before executing. Review the procedure "ENGINE FIRE DURING START" before executing a flooded start

Mixture	CUT OFF
Throttle	FULL
Ignition	START

When engine starts, simultaneously reduce throttle to idle and advance the mixture to rich.

Throttle	1,000 RPM
Engine instruments	CHECK

If engine has started normally, refer to AFTER START CHECKLIST in the NORMAL PROCEDURES Section.

If engine has failed to start, allow approximately 10-15 minutes before attempting another start by reference to the ENGINE START CHECKLIST in the NORMAL PROCEDURES Section.

Should an engine fire occur during flooded start, refer to ENGINE FIRE DURING START checklist in the ABNORMAL PROCEDURES Section.

ENGINE FIRE DURING START CHECKLIST

Mixture	RICH
Throttle	IDLE
Starter	ENGAGE

If engine starts:

Throttle	1,700 RPM

Allow Engine To ingest all flames 30-60 seconds run time.

Mixture	CUT OFF
Engine Area	INSPECT

If engine fails to start and fire continues:

Starter	DISENGAGE
Mixture	CUT OFF
Throttle	IDLE
Fuel Selector Valve	OFF
Aircraft	EVACUATE

FOULED SPARK PLUG CHECKLIST

Note: A Fouled spark plugs can be signified by engine roughness and/or excessive RPM loss during the magneto check.

Brakes	SET / HOLD
Ignition	SET TO BOTH
Carb Heat	OFF
Throttle	FULL

Slowly lean the mixture control until engine RPM begins to degrade slightly. Once RPM drop is noted, advance mixture rich approximately ONE HALF inch toward rich condition. Allow the engine to run at full power for approximately 15-20 seconds, then….

Mixture	RICH
Throttle	2,000 RPM
Magnetos	CHECK

If magnetos produce normal RPM drop, and engine roughness has subsided, resume normal operations.

If magnetos produce abnormal RPM drop, and/or engine roughness continues, seek the assistance of maintenance personnel.

AMP METER EXCESSIVE INDICATIONS

If AMP METER shows excessive indications or shows FLUCTUATIONS

Avionics Master Switch	OFF
Master Switch	RESET
Avionics Master Switch	ON
Amp Meter	MONITOR

SMOKE – FUMES – OR FIRE IN THE CABIN

Avionics Master Switch	OFF
Master Switch	OFF
Normal Landing	ASAP
Engine Shutdown	CONSIDER

NOTE: Opening windows to ventilate the cabin area may be warranted to expel smoke or fumes, however, one should take care that all ignition sources and flames have been extinguished as opening the windows may reignite fire. Use extreme caution!

V-SPEEDS:

DESCRIPTION		MPH
Vs	Stall speed, flaps up	67
Vso	Stall speed, flaps down	57
Vr	Rotation speed	60
Vx	Best angle of climb	74
Vy	Best rate of climb	85
Vfe	Maximum flap speed	115
Vno	Normal operating speed	140
Va	Maneuvering speed at maximum gross weight	129
Vne	Never exceed speed	171
Vref	Approach Speed Flaps 40°	76
	Approach Speed Flaps 0°	85
L/D Max	Best Glide Speed	80

SQUAK CODES:

1200 – VFR
7500 – HIJACKED
7600 – LOST RADIOS
7700 – EMERGENCY