

Interior Pre Flight

Documents: Check
Control Wheel Lock: Remove
Flight Controls: Check
Instruments: Check for Damage
Switches: Verify All Off
Master Switch: On
Fuel Gauge: Check Quantity
Flaps: Lower 10°
Lights and Pilot Heat: Check
All Switches: Off

Exterior Preflight

Rear Windows: Inspect for Damage
Rear Fuselage: Inspect for Damage
Left Stabilizer: Inspect for Damage
Tail/Nav Antenna: Inspect for Damage
Trim Tab: Nut and Pin Secure
Right Stabilizer: Inspect for Damage
Rear Fuselage: Inspect for Damage
Rear Windows: Inspect for Damage
Left Flap: Check Pin, Inspect
Left Aileron: Check Pin/Hinges, Inspect
Wing Tip: Inspect for Damage
Underwing: Check Panels, Inspect
Right Main/Brake:
 Check Inflation/Leaks
Fuel Tank: Sump
Fuel Quantity: Visually Check
Wing Upper Surfaces: Check for damage/frost
Leading Edge: Inspect for Damage
Nose: Check screws/cam locks
Fuel Strainer: Pull for two seconds
Oil Quantity: Check, 3min 5max
Nose Gear: Check strut/tire inflation
Exhaust: Inspect
Propeller: Inspect for damage
Induction Filter: Check clear
Static Port: Check clear
Left Main/Brake: Check Inflation/Leaks

Left Main/Brake: Check Inflation/Leaks
Fuel Tank: Sump
Fuel Quantity: Visually Check
Leading Edge: Inspect for Damage
Pitot Tube: Check Clear
Fuel Vent: Check Clear
Stall Warning Horn: Check Clear
Wing Tip: Inspect for Damage
Underwing: Check Panels, Inspect
Right Flap: Check Pin/Inspect
Right Aileron: Check Pin/Hinges

Before Engine Start

Preflight: Complete
Seat Backs: Upright
Seat Belts: Secure
Fuel Selector: On
Avionics: Off
Fuses: Check
Lights: As Required

Engine Start: Normal

Carb Heat: Cold
Mixture: Rich
Master Switch: On
Primer: 2-6 strokes
Throttle: Open ¼"
Propeller Area: Clear
Ignition: Start
Throttle: 800 RPM
Oil Pressure: Check

Engine Start: Hot

Carb Heat: Cold
Mixture: Lean until Start
Master Switch: On
Throttle: Open ½"
Propeller Area: Clear
Ignition: Start
Throttle: 1000 RPM
Oil Pressure: Check

Engine Start: Flooded

Mixture: Idle/Cutoff
Throttle: Full
Master Switch: On
Propeller Area: Clear
Ignition: Start

After Engine Starts:

Mixture: Rich
Throttle: 800 RPM
Oil Pressure: Check

After Engine Start:

Engine Instruments: Check
Mixture: Lean for Taxi
Avionics: Check and Set
Flight Plan: Entered
Flight Instruments: Check and Set
Taxi and Takeoff Brief: Complete

Taxi:

Lights: As required
Brakes: Check

Run Up:

Brakes: Set
Seat Backs: Upright
Seat Belts: Secure
Doors and Windows: Closed and Latched
Flight Instruments: Set and Check
Mixture: Set for Altitude
Throttle: 1700 RPM
Magnetos: Check
Carb Heat: 125 max/50 diff
Vacuum Gauge: 4.6-5.4"hg
Engine Instruments: Check
Ammeter: Charging
Alternator Light: Not illuminated
Throttle: Idle then 1000
Trim: Set for Takeoff

Before Takeoff:

Flaps: As Required
Mixture: Set for Altitude
Carb Heat: Cold
Lights: As Required
Pitot Heat: As Required

Climb:

Flaps: Up
Mixture: As Required

Cruise:

Power: Set for Cruise
Mixture: As Required
Best Power: Lean to Peak RPM
Best Econ: Lean to 25-50 RPM drop
Lights: As Required
Pitot Heat: As Required

Descent:

Seats and Seat Belts: Upright and Secure
Avionics: Set
Instruments: Set and Checked
Pitot Heat: As Required
Lights: As Required
Power: As Required
Mixture: As Required
Engine Instruments: Check
Fuel Selector: Both
Approach Briefing: Complete

Before Landing:

Lights: As Required
Carb Heat: On
Mixture: As Required

After Landing:

Pitot Heat: Off
Lights: As Required
Mixture: Lean
Flaps: Up
Elevator Trim: Set to Takeoff

Shutdown:

Cabin Heat/Air: Off
Avionics: Off
Throttle: Idle
Magnetos: Check
Mixture: Idle/Cut Off
Magnetos: Off
Master Switch: Off
All Switches: Off

Postflight:

Magnetos: Verify Off
Flight Controls: Secure
Left Main/Wing: Inspect for Damage
Tail Skid Plate: Inspect for Damage
Right Main/Wing: Inspect for Damage
Nose Wheel: Inspect for Damage
Firewall: Inspect for Damage
Propeller: Inspect for Damage

Flight Plan: Closed

Engine Failure Before Take Off:

Throttle: Idle
Brakes: As Required
Engine: Shutdown if
Necessary

Engine Failure Immediately After Take Off:

necessary

Engine Failure Immediately After Take Off:

Airspeed:	Maintain Safe
Airspeed	
Engine:	Shutdown
Cabin Door:	Unlatch
Land:	Straight
Ahead	

Engine Failure During Flight:

Airspeed:	Pitch for 65kts
Place to Land:	Locate
Carb Heat:	On
Mixture:	Rich
Fuel Selector:	On
Primer:	In and
Locked	
Magnetos:	Both. Start if Prop is
stopped	

Power Off Landing

Airspeed:	65kts
Place to Land:	Locate
Seat Backs:	Full Upright
Seat Belts:	Secure
If Time and Alt Permit:	
Radio:	Transmit
Throttle:	Idle
Mixture:	Idle
Fuel Selector:	Off
Magnetos:	Off
Flaps:	As Required
Master Switch:	Off
Door:	Unlatch Prior to
Touchdown	
Approach Speed:	65 no Flaps/60 w
Flaps	

Precautionary Landing with Power

Seat Backs:	Upright
Seat Belts:	Secure
Airspeed:	65 kts
Flaps:	10 deg
Selected Field:	Fly over
Flaps:	As Needed
Airspeed:	60 kts
Master Switch:	Off
Cabin Doors:	Unlatch Prior to
Touchdown	
Mixture:	Idle/Cut Off
Brakes:	Apply Heavily

Engine Fire During Start:

Magnetos:	Cont't Cranking
<i>If Engine Starts:</i>	
Throttle:	1700 RPM for a
few mins	
Engine:	Shutdown and
Inspect	
<i>If Engine Fails to Start</i>	
Magnetos:	Con't Cranking
Throttle:	Full
Mixture:	Idle/Cut-off
Fuel Selector:	Off
Magnetos:	Off
Master Switch:	Off

Master Switch:

Evacuate and Extinguish fire by all available means

Off

Engine Fire in Flight

Mixture:

Idle/Cut-off

Fuel Selector:

Off

Master Switch:

Off

Cabin Heat/Air:

Off

Cabin Vents:

Open as Needed

Airspeed:

100 kts

Forced Landing:

Execute

Proceed to Power Off Landing Checklist

Cabin/Electrical Fire

Master Switch:

Off

Cabin Air/Heat:

Off

Cabin Vents/Windows:

Closed

Fire Extinguisher:

Activate

When Fire is Out:

Cabin Vents/Windows:

Open

Cabin Heat/Air:

On

Land aircraft as soon as practical/possible

If electrical power is needed for Landing:

Circuit Breakers:

Check, Do not reset

Master Switch:

On

Wing Fire:

Pitot Heat:

Off

Nav Lights:

Off

Emergency Descent:

Initiate

Land:

As soon as

Possible

Perform Side slip to keep fire away from fuel tank and cabin, use flaps only as necessary when landing.

High Volts Warning:

Alt Master:

Off

Electrical Load:

Reduce

Land:

As soon as

practical

Flaps should be used only when landing is assured as they use a large electrical load.

Low Volts Warning:

Low Volts Warning:

Below 1000 RPM:

Throttle:

1000 RPM

Ammeter:

Check Charging

Above 1000 RPM:

Alt Master:

Off

Gen Fuse:

Check

Master Switch:

Cycle

Ammeter:

Check Charging

If Ammeter continues to show discharge turn off ALT Master and reduce electrical loads. Land as soon as practical.

Emergency Descent:

Carb Heat:

On

Throttle:

Idle

Mixture:

Rich

Bank:

30-45 degrees

Airspeed:

Do not Exceed

VNE

Rollout:

Pilot Option

Spin Recovery:

Throttle:

Idle

Ailerons:

Neutral

Rudder:

Full Opposite

Rotation

Control Wheel:

Briskly

Forward

When Rotation Stops:

Rudder:

Neutral

Control Wheel:

As Needed

Throttle:

As Needed

Inadvertent Icing Encounter:

Carb Heat:

On

Inadvertent Icing Encounter:

Pitot Heat: On
Carb Heat: On
Maneuver: To Exit Icing
Cabin Heat: On, Full Out
Defroster: Open
Cabin Air: Adjust

Land as soon as practical depending on rate of accumulation, ice build-up of as little as ¼” will increase power requirements and stall speeds.

Leave flaps retracted as ice build-up on horizontal stabilizer can cause a tail stall if flaps are used.

Consider using a forward slip on landing to improve forward visibility, increase approach speed from 65 to 75 kts depending on accumulation.

Missed approaches and go-arounds should be avoided due to greatly reduced climb ability.

Low Oil Pressure:

Oil Pressure Gauge: Check
Oil Temp Gauge: Check
Prepare for power off landing if needed.

High Oil Temp:

Mixture: Enrichen
Power: Reduce as needed
Oil Pressure Gauge: Check
Oil Temp Gauge: Check
Increase airflow over engine. Prepare for power off landing if needed.

Engine Roughness:

Mixture: Adjust for Smooth Operation
Carb Heat: On
Fuel Selector: Switch Tanks
Magnetos: Check
If operation is smooth on either mag, continue operation on that mag at reduced power and full rich mixture to the nearest suitable airport.

Pitot Static Blockage:

Pitot Heat: On
Alt Static Source: Pull Out
Cabin Vents: Closed
Cabin Heat/Air: Pull Full Out

Cabin Vents:	Closed
Cabin Heat/Air:	Pull Full Out
Flight Instrument:	Scan/Monitor
Airspeed:	Refer to POH

Loss of Comms:

Headset Jacks/Volume:	Check
Push to Talk Switch:	Check
Radios:	Switch
Circuit Breakers:	Check

Ditching:

Radio:	Transmit
Heavy Objects:	Secure or
Jettison	
Seat Backs:	Upright
Seat Belts:	Secure
Flaps:	Pilot's
Discretion	
Power:	300 FPM @
55kts	
Approach:	
High Winds, Heavy Seas:	Into the wind
Light Winds, Heavy Swells:	Parallel to
Swells	
Cabin Doors:	Unlatch
Touch Down:	Level Attitude
Occupant's Heads:	Cushion
Evacuate:	Cabin Doors
Life Vests/Raft:	Inflate