Interior Pre Flight

Documents: Check
Control Wheel Lock: Remove
Flight Controls: Check
Instruments: Check for Damage
Switches: Verify All Off
Master Switch ALT/BAT: On
Fuel Gauge: Check Quantity
Flaps: Lower 40°
Lights and Pilot Heat: Check
All Switches: Off

Exterior Preflight

Baggage Door: Secure and Latched
Rear Windows: Inspect for Damage
Rear Fuselage: Inspect for Damage
Left Stabilizer: Inspect for Damage
Tail/Nav Antenna: Inspect for Damage
Trim Tab: Inspect for Damage
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
Oil Quantity: Check, 4min 6max
Nose Gear: Check strut/tire inflation
Exhaust: Inspect
Alternator Belt: Check
Propeller: Inspect for damage
Induction Filter: Check clear
Static Port: Check clear
Left Main/Brake: Check Inflation/Leaks

Static Port: Check clear
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: Fullest Tank
Avionics: Off
Circuit Breakers: Check
Lights: As Required

Engine Start: Normal

Carb Heat: Cold
Mixture: Rich
Master Switch: On
Fuel Pump: On
Primer: 1-3 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
Fuel Pump: On
Throttle: Open 1/2”
Propeller Area: Clear
Ignition: Start
Throttle: 800 RPM
Oil Pressure: Check

Engine Start: Flooded

Oil Pressure: Check

Engine Start: Flooded

Mixture: Idle/Cutoff
Throttle: Full
Master Switch: On
Fuel Pump: Off
Propeller Area: Clear
Ignition: Start
After Engine Starts:
Mixture: Rich
Throttle: 800 RPM
Oil Pressure Check

Engine Start: External Power

Carb Heat: Cold
Throttle: Open ¼"
Mixture: Rich
External Power: Connect
Master Switch: On
Primer: 1-3 strokes
Propeller Area: Clear
Ignition: Start
Throttle: 800 RPM
Oil Pressue: Check, Green w/in 30 seconds
Master Switch: Off
External Power: Disconnect
Master Switch: On

After Engine Start:

Engine Instruments: Check
Annunciators: Test
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: 2000 RPM
Magnetos: Check 175 max/50 diff
Carb Heat: Check for drop
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
Fuel Pump: On
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
Fuel Pump: Off
Lights: As Required
Pitot Heat: As Required

Descent:

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:

Fuel Selector:	Fullest Tank
Fuel Pump:	On
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:

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:

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

Cabin Door: Unlatch
Land: Straight Ahead

Engine Failure During Flight:

Airspeed: Pitch for 85mph
Place to Land: Locate
Fuel Selector: Opposite Tank
Carb Heat: On
Fuel Pump: On
Mixture: Rich
Primer: In and Locked
Magnetos: Both. Start if Prop is stopped

Power Off Landing

Airspeed: 85mph
Place to Land: Locate
Seat Backs: Full Upright
Seat Belts: Secure
If Time and Alt Permit:
Transponder: 7700
Radio: Transmit
Throttle: Idle
Mixture: Idle
Fuel Selector: Off
Magnetos: Off
Flaps: As Required
Master Switch: Off
Door: Unlatch Prior to Touchdown
Approach Speed: 85 no Flaps/70 w Flaps

Precautionary Landing with Power

Seat Backs: Upright
Seat Belts: Secure
Airspeed: 80 mph
Flaps: 20 deg
Selected Field: Fly over
Flaps: Full
Airspeed: 80 mph
Master Switch: Off
Cabin Doors: Unlatch Prior to Touchdown
Mixture: Idle/Cut Off
Brakes: Apply Heavily

Engine Fire During Start:

Magnetos: Cont't Cranking
If Engine Starts:
Throttle: 1700 RPM for a few mins
Engine: Shutdown and Inspect
If Engine Fails to Start
Magnetos: **Con't Cranking**
Throttle: **Full**
Mixture: **Idle/Cut-off**
Fuel Pump: **Off**
Fuel Selector: **Off**
Magnetos: **Off**
Master Switch: **Off**
Evacuate and Extinguish fire by all available means

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

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

Low Volts Warning:

Below 1000 RPM:
Throttle: 1000 RPM
Ammeter: Check Charging
Above 1000 RPM:
Alt Master: Off
Alt FLD Circuit Breaker: Check In
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
Fuel Pump: On
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:

Pitot Heat: On
Carb Heat: On
Maneuver: To Exit Icing
Cabin Heat: On

Maneuver: **To Exit Icing**
Cabin Heat: **On**
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 70 to 85 mph 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
Flight Instrument: Scan/Monitor
Airspeed: Refer to POH

Airspeed: Refer to POH

Loss of Comms:

Headset Jacks/Volume: Check
Push to Talk Switch: Check
Radios: Switch
Circuit Breakers: Check
Transponder: Squawk 7600

Ditching:

Transponder: 7700
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