

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 10°
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: 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, 4min 6max
Nose Gear: Check strut/tire inflation
Exhaust: Inspect
Alternator Belt: Check
Propeller: Inspect for damage
Induction Filter: Check clear

Induction Filter:	Check clear
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:	Both
Avionics:	Off
Circuit Breakers:	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:	1000 RPM
Oil Pressure:	Check

Engine Start: Hot

Carb Heat:	Cold
Mixture:	Lean until Start
Master Switch:	On
Throttle:	Open 1/2”
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: 1000 RPM
Oil Pressure Check

Engine Start: External Power

Carb Heat: Cold
Throttle: Open ¼”
Mixture: Rich
External Power: Connect
Master Switch: On
Primer: 2-6 strokes
Propeller Area: Clear
Ignition: Start
Throttle: 1000 RPM
Oil Pressure: Check, Green w/in 30 seconds
External Power: Disconnect

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

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

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

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
Ahead

Land.

Straight

Ahead

Engine Failure During Flight:

Airspeed:

Pitch for 65kts

Place to Land:

Locate

Carb Heat:

On

Mixture:

Rich

Fuel Selector:

Both

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:

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:

65 no Flaps/60 w

Flaps

Precautionary Landing with Power

Seat Backs:

Upright

Seat Backs:	Upright
Seat Belts:	Secure
Airspeed:	65 kts
Flaps:	20 deg
Selected Field:	Fly over
Flaps:	Full
Airspeed:	65 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	

If Engine Fails to Start

Magnetos:	Con't Cranking
Throttle:	Full
Mixture:	Idle/Cut-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 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:

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

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

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, Full Out

Defroster:

Open

Cabin Air:

Adjust

Land as soon as practical depending on rate of accumulation, ice build-up

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

Flight Instrument: Scan/Monitor

Airspeed: Refer to POH

Loss of Comms:

Headset Jacks/Volume: Check

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
Life Vests/Raft:	Inflate

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

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

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 Pressure: 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:

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:

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:
Ahead**

Straight

Engine Failure During Flight:

**Airspeed:
Place to Land:
Fuel Selector:
Tank
Carb Heat:
Fuel Pump:
Mixture:
Primer:
Locked
Magnetos:
stopped**

**Pitch for 85mph
Locate
Opposite

On
On
Rich
In and

Both. Start if Prop is**

Power Off Landing

**Airspeed:
Place to Land:
Seat Backs:
Seat Belts:
If Time and Alt Permit:
Transponder:
Radio:
Throttle:
Mixture:
Fuel Selector:
Magnetos:
Flaps:
Master Switch:
Door:
Touchdown
Approach Speed:
Flaps**

**85mph
Locate
Full Upright
Secure

7700
Transmit
Idle
Idle
Off
Off
As Required
Off
Unlatch Prior to

85 no Flaps/70 w**

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
<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 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

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

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:
needed

Reduce as

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

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 PA-28 Checklist 8