

This checklist is not designed to replace your airplane's official checklist.

EMERGENCIES

Engine Restart

Establish best glide—80mph
Carb heat on
Fuel selector—both, then left, then right, then both
Primer—locked
Magnetos—check all
Master—on

Engine Out Landing

Maintain best glide—80mph
Note wind direction and velocity
Pick landing site
Note obstructions, especially power lines
Squawk 7700
Declare emergency on 121.5 or other frequency
Mixture—full lean/idle cutoff
Seatbelts and harnesses—secure
Note **obstructions** again
Flaps—as needed
Master—off
Magnetos—off
Unlatch door
Emergency bag—ready

PLOWS: **P**erformance (airplane's gliding ability given the terrain), **L**ength of the field, **O**bstuctions , **W**ind, **S**lope of the field

V Speeds

Vr 60 mph Vx 68 mph Vy 85 mph Vso 49 mph Vsi 57 mph Vfe 100 mph Va
122 mph Vno 140 mph Vne 174 mph **Best glide: 80 mph**

EMERGENCIES CONTINUED

Engine Fire in Flight

Mixture—full lean/idle cutoff
Fuel Selector—off
Master—off
Cabin heat and air—off
Slip as needed to keep fire away from cockpit

Electrical Fire in Flight

All electrical devices—off
Master—off
Close vents, cabin heat, air
Use fire extinguisher, if needed: OPEN WINDOWS, VENT AIR
If fire out—master on and critical systems on only
Circuit breakers—reset only if device is critical

Icing

Pitot heat—on
Carb heat—on
Cabin heat and defrost—maximum
Strongly consider 180° turn
Attain higher or lower altitude
Increase engine speed
No flaps
Land faster as needed

V Speeds

Vr 60 mph Vx 68 mph Vy 85 mph Vso 49 mph Vsi 57 mph Vfe 100 mph Va
122 mph Vno 140 mph Vne 174 mph **Best glide: 80 mph**

Pre-Flight

INTERIOR

Check AD log/pilot log
100 hour next?

Remove pitot tube cover
Examine interior
Documents: AROW
Pilot's operating handbook
Install intercom and headset
Control lock — remove
Ignition switch — off
Avionics power switch — off
Alternate static source — test, then off
Circuit breakers — in
Fuel selector — BOTH
Battery — on
Check fuel gauges for quantity
Lower flaps — monitor lowering
Check landing lights — lights on
Check pitot heat — pitot heat on
Landing lights — off
Pitot heat — off
Check cooling fan by sound
Avionics power — off
Battery — off
Check for spare container of oil
Adjust height of seat and seat back

V Speeds

Vr 60 mph Vx 68 mph Vy 85 mph Vso 49 mph Vsi 57 mph Vfe 100 mph Va 122 mph
Vno 140 mph Vne 174 mph Best glide: 80 mph

EXTERIOR

- General walk around
- Look for fluids underneath
- Remove left wing tie down
- Remove tail tie down (if any)
- Remove right wing tie down
- Remove pitot heat cover
- Remove chocks (if any)
- Inspect left fuselage
- Baggage door — secured and locked
- Inspect empanage (use flashlight)
 - Inspect counter weights
 - Inspect leading edges of tail and rudder
 - Push down on tail — check for firmness
 - Elevator — check for freedom of movement
 - Elevator — check stops
 - Check cables and bolts on tail and rudder
 - Check for bird and insect nests
 - Rudder — check for freedom of movement
 - Rudder — check stops
- Inspect right fuselage
- Inspect aileron for freedom of movement, hinge security, cotter pins on top, and counter weights.
- Inspect flap
- Right wing — inspect leading edge
- Right gear — check for inflation and strut
- Right quick drain valve — drain three times
 - Remove sunglasses: Check color
 - Check for water
 - Check for sediment
- Fuel tank quantity
- Replace fuel cap securely
- Examine top of wings
- Examine antennas
- Oil level — wipe dip stick clean first
 - Replace dip stick
- Fuel strainer — drain for 5 seconds
- Examine engine area inside cowling
 - with flashlight
- Propeller — examine leading edge for nicks or dents

Spinner — check for security, nicks and tightness
Alternator band — test for tightness
Cowling — inspect for debris
Air filter — inspect for dust and debris
Nose wheel — check tire and measure strut
Left gear and strut — check inflation
Static source — check for blockage
Pitot tube — check for blockage/check drain
Fuel vent — check for blockage
Stall warning opening — check for blockage
Landing lights — examine for clarity
Left quick drain valve — drain three times
 Remove sunglasses: Check color
 Check for water
 Check for sediment
Fuel quantity — check
Replace fuel cap securely
Left wing — inspect leading edge
Inspect aileron for freedom of movement,
 hinge security, top cotter pins, and
 counter weights
Inspect flap
ELT—check
Walk around
Check fuel caps

BEFORE ENGINE START

Passenger briefing
Seats secure
Seat belts and harnesses secure
Brakes — tested and set
Fuel selector valve — both
Avionics power — off
Circuit breakers — in
Electrical equipment — off
Beacon — on
Cell phone — off

V Speeds

Vr 60 mph Vx 68 mph Vy 85 mph Vso 49 mph Vsi 57 mph Vfe 100 mph Va
122 mph Vno 140 mph Vne 174 mph Best glide: 80 mph

ENGINE START

Brakes — test
Carb heat — off
Prime — as required (0 to 6 stokes)
Primer — confirm locked down
Throttle — open 1/8"
Mixture — rich
Brakes — test and hold
Propeller area — shout clear
Master switch — on
Ignition switch — start
Throttle — 1000 RPMs
Oil pressure — check
Avionics power — on
Beacon — ON
Flaps up — monitor raising
Radio
 COM1 — on and check/test volume
 COM2 — on and check/test volume
Radio — set to COM 1
Radio — interior speaker off
Avionics — set frequencies
Transponder
 Squwak 1200 and Standby
Throttle 1000 RPMs
Seat — check security
Set DG
Charts and nav. log — in reach
Handy:
 Charts / Facility directory / Navlog / Pencils
 Spare glasses / Water / Back up radio / Flight computer
Brakes — test
Mixture — lean to taxi
Copy ATIS/AWIS
Contact Ground/Clearance Delivery
Taxi — note wind

RUNUP

Nose gear — straight
Parking brake — set
Seats, seat belts, harnesses — check
Cabin doors — close and locked/test
Flight controls: free and correct
 Ailerons — thumb points to up aileron
 Elevator — free and correct
 Rudder — free and correct
 Trim — correct
Flight instruments — touch and call
 Attitude indicator
 Altimeter
 Turn coordinator (no red flag)
 Directional gyro
 Vertical speed indicator
Mixture — rich
Engine to 1700 RPMs
 Right magneto / max 125 drop
 Left magneto / max 125 drop / 50 difference

If unacceptable mag drop: Increase to high RPMs and lean mixture for less than 30 seconds

 Carb heat; pull and keep on for 4 seconds. **Watch for carb ice.**
Engine instruments — touch and call
 Oil temperature
 Oil pressure
 Suction
 Ammeter
Engine to 1000 RPMs
Carb heat — check again at lower RPM
Trim — set for takeoff
 Slight nose down when flaps set
Loose cabin items secured
Recheck seat security
Release brakes
Fuel selector — both
Carb heat — off

BEFORE TAKEOFF

Doors closed and latched
Windows closed
Loose items secured
Seat belts tightened
Review V-speeds and abort procedure
Note wind direction
Recite pattern departure and initial heading
Note departure time _____

TAKEOFF

Radios — on
Transponder — on
Flaps
 10° for short field
 No flaps for normal takeoff
Landing light — on
Radio — announce intentions
Parking brakes — release
Mixture — RICH
Carb heat — OFF
Fuel selector — BOTH
Trim for takeoff
Aileron into wind
Throttle — full power
Engine — monitor RPMs
Oil — monitor pressure

LANDING

Carb heat — apply

Radio — announce intentions

Mixture — rich

Fuel selector — both

Landing light — on

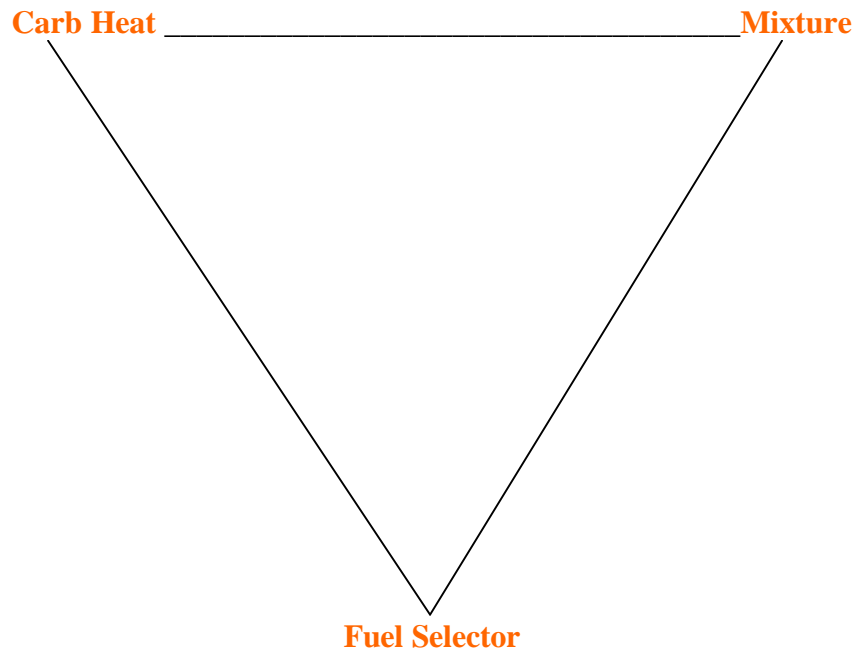
Seat belts — on and tight

Clearance — authorized?

Distracted? GO AROUND

Check Fuel Triangle

Use this flow checklist during pre-landing



POST-LANDING

Flaps — up
Carb heat — off
Landing light — off
Mixture — lean for taxiing

SHUTDOWN

Radio — monitor 121.5 to check ELT
Flaps — up
Electrical equipment — off
Avionics power — off
Magnetos — check for grounding with throttle at 1,000 rpms
Throttle — out
Mixture — out
Ignition — off
Master — off
Keys — visible on dash
Flight plan — close

REFUELING

Electrical equipment off
(except flashing beacon)
Avionics power — off
Magnetos — test ground
Ignition — off
Master — off
Parking brake — set
Keys — on dash
(Fuel selector: left or right)
Static line — attach
Flight plane — close

RESTART

Static line — remove
Fuel caps — examine for security
Chocks — remove
Avionics power — off
Fuel selector – both
Mixture — rich
Throttle — open 1/8"
Carb heat — off
Master switch — on
Clear propeller
Brakes — hold on
Ignition — on
Parking brake — release
Engine — 1000 RPMs
Gauges — check

Have you closed your flightplan?

This checklist is not designed to replace your airplane's official checklist. Consult your airplane's Pilot Operating Handbook for an official checklist. No checklist can provide complete or comprehensive information about what you should do during any particular phase of flight or in an emergency. Fly smart!

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