

GROUND PROCEDURES

CABIN

1. Required Documents..... A.R.O.W.
2. Flight Controls Check correct movement
3. Trim Check ops; Set for takeoff
4. Fuel Selector..... BOTH
5. Flaps Proper operation; FULL DOWN
6. Fuel GuagesSufficient fuel for flight
7. Mixture..... Idle cut-off
8. Carburetor Heat OFF
9. Magnetos OFF
10. Electrical Switches..... OFF
11. Avionics Master Switch OFF
12. Master Switch ON
13. Avionics Master Switch ON
14. Avionics Cooling FanAUDIBLE
15. Avionics Master Switch OFF
16. All Exterior Lights ON
17. Pitot Cover REMOVED
18. Pitot Heat ON
19. Check Operation of :
..... Nav/Strobe, Beacon, and Landing Light
20. Stall Warning CHECKED
21. Pitot Tube.....CLEAR / WARM
22. Exterior LightsAll OFF, BEACON ON
23. Pitot Heat OFF
24. Circuit Breakers CHECK IN
25. Master SwitchOFF
26. Windows CLEAR
27. Night visors..... For night operations
Installed, secure and do not interfere
with controls
28. If passenger seat unoccupied
Passenger seat harness SECURE

EMPENNAGE

1. Rudder Gust Lock REMOVE
2. Tail Tie-Down DISCONNECT
3. Bracing Wires Check for tension
4. Hinges..... CHECK
5. Gap SealsNone Missing
6. Surfaces (fabric) CHECK
7. Tail wheel and springs..... CHECK
8. H-stab Strake/Fabric..... CHECK
9. Elevator CHECK
10. Rudder CHECK
11. Trim Tab CHECK
12. Airplane Antennas CHECK

Cub Crafters Top Cub

RIGHT WING

1. See Left Wing Checks

2. Baggage Door..... CLOSED
3. Accessory Door CLOSED
4. Stall Warning VaneCHECK CONDITION

NOSE

1. Right Static Port CHECK
2. Right Cowling OPEN
3. Alternator Belt Condition and Tension
4. Engine Oil/Filler Cap CHECK (6qts min)
5. Engine condition CHECK
6. Right Cowling CLOSE
7. Air Filter CHECK
8. Prop and Spinner CHECK
9. Engine Cooling Air Inlets..... CLEAR
10. Left Cowling OPEN
11. Engine condition CHECK
12. Left Cowling CLOSE
13. Fuel Strainer..... Drain
14. Left Static Source Opening..... CHECK

LEFT WING

1. Left Fuselage..... CHECK
2. Flap SurfaceCHECK CONDITION
3. Flap Hinges..... CHECK
4. Flap Actuator Rod CHECK
5. Aileron SurfaceCHECK CONDITION
6. Aileron Hinges..... CHECK
7. Aileron Cables CHECK
8. Wing Tip..... CHECK
9. Leading Edge CHECK
10. Trailing EdgeCHECK DRAIN HOLES
11. Wing Tie-DownREMOVE
12. Fuel Quick Drain Valves CHECK
13. Fuel Quantity CHECK VISUALLY
Guages show 3 gal less than actual with
26" tires
14. Fuel Vent..... CHECK
15. Filler Cap vent unobstructed SECURE
16. Main Landing Gear Leg and Strut CHECK
17. Brakes and Lines CHECK
18. Tire Pressure CHECK – 10 PSI Min
19. Tire valve..... PERPENDICULAR TO RIM
20. Vortex Generators CHECK
Not more than three missing on aircraft
Not more than two missing on a side
Missing VG's must not be next to each
other
If any VG's missing max takeoff wt 2100 lbs

GROUND PROCEDURES

BEFORE STARTING ENGINE

1. Preflight Inspection..... COMPLETE
2. Seats/SeatBelts ADJUST, LOCK
3. Passenger Briefing COMPLETE
4. Brakes TEST; SET/HOLD
5. Door CLOSED
6. Fuel selector valve BOTH
7. Av. Pwr Switch, Elect. Equip.....OFF
8. Circuit Breakers..... CHECK IN
9. Flaps..... Retract

STARTING ENGINE (With Battery)

1. Master switchON
 2. BeaconON
 3. Ignition Switch BOTH
 4. Carburetor Heat..... COLD
 5. Throttle OPEN 1/2"
 6. MixtureFULL RICH
- NOTE: if engine is warm, omit priming**
7. Prime..... As REQ'D (2-6 strokes)
 8. Propeller areaCLEAR
 9. Ignition switch.....START
 10. Oil pressure..... CHECK
 11. Throttle..... 1000 RPM or LESS
 12. Nav, strobe lights..... ON, as REQ'd
 13. Avionics power switch & radios.....ON
 14. Transponder..... ALT
 15. GPS..... Initial fuel; Runway diagram
 16. ATIS / Altimeter SET
 17. Taxi Lights ON as REQ'd

FIRE DURING START

1. Cranking CONTINUE
- If engine starts:**
2. Power..... **1,700 RPM for a few minutes**
 3. Engine **SHUTDOWN**
- If engine fails to start:**
4. Throttle **FULL OPEN**
 5. Mixture **IDLE CUT OFF**
 6. Cranking..... **CONTINUE**
 7. Fuel Selector **OFF**
 8. Master Switch **OFF**
 9. Ignition Switch **OFF**
 10. Fire Extinguisher **ACTIVATE**
 11. Airplane..... **EVACUATE**

Cub Crafters Top Cub

RUNUP

1. Parking Brake(s)..... SET or HOLD
2. Seat & Seat Belts SET and SECURE
3. Doors & Windows CLOSED/LOCKED
4. Flight controls..... FREE and CORRECT
5. Flight InstrumentsCHECK & SET
6. Fuel Quantity..... CHECK
7. Fuel Selector Valve BOTH
8. Mixture..... RICH
9. Primer..... In and Locked
10. Throttle..... 1700 RPM
 - a. Magnetos CHECK BOTH (175/50)
 - b. Carburetor Heat..... CHECK then COLD
 - c. Engine instruments CHECK
 - d. Suction Gage CHECK
 - e. Ammeter CHECK
11. Throttle..... CHECK IDLE
12. Throttle..... 1000 RPM
13. Elevator Trim..... SET for TAKEOFF
14. Radios, Avionics, GPS, Nav SET
15. Wing flaps..... First notch (takeoff 22 deg)
16. Lights as REQ'D

INFLIGHT CHECKS CONTINUED ON SECOND CARD

SECURING AIRPLANE

1. Parking Brake SET or HOLD
2. Throttle..... 1500 RPM
3. Mixture LEANED, 20 seconds
4. Avionics CHECK 121.5
5. Throttle..... REDUCE as REQ'd
6. Parking Brake RELEASED
7. Exterior Lights (except Beacon) OFF
8. Power IDLE
9. Avionics Power Switch, Elect. Equip..... OFF
10. Interior & Panel Lights..... OFF
11. Magneto Ground CHECK
12. Mixture IDLE CUT OFF
13. Ignition Switch..... OFF
14. Keys ON DASH
15. Master Switch..... OFF
16. Fuel Selector..... RIGHT TANK
17. Flaps EXTENDED
18. Pitot Cover..... INSTALLED
19. Wheel Chocks..... INSTALLED
20. Tie Downs INSTALLED
21. Tires and Aircraft..... INSPECTED
22. Covers..... INSTALLED

FLIGHT NORMAL PROCEDURES

BEFORE TAKEOFF

1. Doors & WindowsCLOSED/LOCKED
2. TransponderALT
3. Fuel Selector Valve BOTH
4. Elevator Trim SET for takeoff
5. Mixture RICH (LEAN max RPM > 3000')
6. Wing flaps First notch
7. At runway Lights as REQ'd
8. GPS Zoom SET

NORMAL TAKEOFF

1. Elevator NEUTRAL
2. Throttle Smoothly apply to FULL OPEN
3. Engine Instruments CHECK
4. Attitude RAISE TAIL to level flt attitude
5. Lift-Off 55 – 60 MPH
6. Flaps RETRACT
7. Climb Vx → 60 MPH; Vy → 74 MPH

SHORT FIELD/OBSTACLE TAKEOFF

Normal Takeoff Procedure except:

1. Lift-Off 58 MPH
2. Climb (Vx) 60 MPH

SOFT FIELD TAKEOFF

Normal Takeoff Procedure except:

1. Tail LOW, but clear of ground
2. Lift-off AS SOON AS POSSIBLE
3. Level Flight to safe speed, then climb

NORMAL CLIMB

1. Mixture FULL RICH (below 3000ft)
2. Airspeed Vx → 60 MPH; Vy → 74 MPH

CRUISE

1. Power ADJUST
2. Mixture LEAN (Above 3000 ft)
3. Carburetor Heat As Required
4. Pitot Heat As Required

DESCENT

1. Mixture FULL RICH
2. Carburetor Heat As Required

BEFORE LANDING

1. Fuel Selector BOTH
2. Mixture FULL RICH
3. Primer In and locked
4. Carburetor Heat ON
5. Seat Belts, Harnesses SECURE
6. Lights AS REQ'D
7. Flaps Max Speed First Notch: **98 MPH**
Max Speed Full Flaps **89 MPH**

Cub Crafters Top Cub

NORMAL LANDING

1. Airspeed (3 point) **63 MPH**
2. Airspeed (wheel) **70 MPH**

CROSS-WIND LANDING

1. Ailerons Keep upwind wing low
2. Rudder Hold runway alignment
3. Landing Roll
Ailerons to keep upwind wing down
Rudder/Brakes for directional control
4. Do Not Drop Tail until below flying speed

STOP & GO

1. Elevator Trim SET for TAKEOFF
2. Mixture FULL RICH
3. Cabin Door & Window CLOSED
4. Lights SET
5. Transponder ALT
6. Carburetor Heat OFF

BALKED LANDING

1. Throttle Full Power
2. Carburetor Heat OFF
3. Climb Speed 60 MPH
4. Flaps Retract Slowly
5. Trim As required
6. Clear of Obstacles 75-80 MPH

SHORT FIELD/OBSTACLE LANDING

Normal landing procedures and:

1. Airspeed 60 MPH

SOFT FIELD LANDING

Normal FULL STALL (3 PT) landing procedures:

1. Elevator FULL AFT after touchdown
2. DO NOT USE BRAKES
3. Power as Req'd to not get stuck

AFTER LANDING

1. Flaps Retract
2. Lights AS REQ'D
3. Carburetor Heat OFF

FLIGHT EMERGENCY PROCEDURES Cub Crafters Top Cub

ENGINE FIRE IN FLIGHT

1. Mixture Control IDLE CUT-OFF
2. Fuel Shut-Off Valve OFF
3. Electrical and Mag Switches ALL OFF
4. Cabin Heat OFF front and rear
5. Airspeed Highest possible within limits
6. Fire Extinguisher ACTIVATE (As Req'd)
7. Land use "Forced Landing Procedures"

ENGINE FAILURE ON TAKE-OFF

If sufficient runway remains:

1. Throttle CLOSED
2. Land using maximum braking

If altitude permits, Attempt an engine restart:

3. Fuel Shut-Off Valve CHECK ON
4. Mixture Control FULL RICH
5. Carburetor Heat FULL HOT
6. Magneto Switches BOTH ON (Up)

If no restart is possible:

7. Select most favorable landing area ahead

ENGINE AIR START

1. Maintain Airspeed 68 MPH, minimum
2. Magneto Switches BOTH ON (Up)
3. Mixture FULL RICH, as req at high altitude
4. Fuel Shut-Off Valve CHECK ON
5. Carburetor Heat FULL HOT
6. If restart not possible, change throttle, mixture, mag, or carb/alt air to restart.
7. No Start Run "Forced Landing Procedure"

FORCED LANDING (Complete Power Failure)

1. Airspeed Maintain 68 MPH
2. Mixture IDLE CUT-OFF
3. Fuel Shut-Off Valve OFF
4. Master Switch ON
5. Radio MAYDAY 121.5 MHz
6. Attempt to position the aircraft:
Over point of landing - 1000 ft (AGL)
Downwind and abeam - 500 ft (AGL)
7. Electrical Switches ALL OFF
8. On Final Approach Flaps down - 53 MPH
9. Touchdown with minimum airspeed (three point full stall) if landing on rough terrain.

PARTIAL POWER LOSS | ROUGH RUNNING

1. Follow the engine air restart procedure.

INFLIGHT OVERSTRESS

Fly at a reduced airspeed, (60 - 70 MPH) to a suitable landing point. Maintain level flight as much as possible and limit forces on aircraft.

ELECTRICAL FIRE

1. Electrical Switches .. ALL OFF (Magneto ON)
2. Air Vents/Windows . OPEN as Req'd for vent
3. Use hand fire extinguisher if available
4. If fire continues, land immediately.

ALTERNATOR/ELECTRICAL FAILURE

An alternator failure is indicated by a steady discharge on the ammeter.

1. Master Switch OFF
2. Circuit Breakers IN
3. Master Switch 10 sec delay, then ON
4. If excessive battery discharge continues, turn OFF all nonessential electrical equipment to conserve battery power.
5. Land as soon as practical

OVERVOLTAGE

Indicated by bus voltage rise above 15.3 volts. A bright read "High Volts" light will come on.

1. Battery Master Switch OFF
2. Wait time 1 Minute
3. Battery Master Switch ON
4. If "High Volts" light comes on again:
Land as soon as practical

EMERGENCY DESCENT

1. Max airspeed flaps up smooth air .. 152 MPH
2. Max airspeed flaps up rough air 102 MPH
3. Max airspeed flaps down 89 MPH
4. Throttle IDLE

INADVERTENT ICING ENCOUNTER

1. Pitot Heat ON
2. Carburetor Heat ON

DITCHING

1. Cabin Door OPEN
2. Land into wind if high winds are evident, or parallel to swells with calm winds.
3. Contact the water with nose high attitude.
4. DO NOT STALL prior to touchdown.
5. After coming to complete stop EXIT

V-SPEEDS

VNE – 152 MPH
Vo – 2300 lb, 102 MPH; 1800lb, 90 MPH
VFE – 1st notch, 98 MPH; 2nd notch, 89 MPH
Vs1 – 54 MPH
Vso – 48 MPH
Vx – 60 MPH
Vy – 74 MPH