

ENGINE FAILURE ON TAKEOFF ROLL	
1. Throttle.....	CLOSED
2. Braking.....	MAXIMUM
3. Fuel Selector.....	OFF
4. Battery, Alternator & Start Switches.....	OFF

ENGINE FAILURE IN FLIGHT	
ATTEMPT AIR START:	
1. Fuel Boost Pump.....	ON
2. Fuel Selector Valve.....	SWITCH TANKS
3. Mixture.....	FULL RICH
4. Magnetos.....	CHECK L, R & BOTH
IF NO RESTART (Max Glide):	
5. Landing Gear.....	UP
6. Flaps.....	UP
7. Propeller.....	FULL AFT
8. Airspeed (glide 1.7nm per 1000' AGL).....	91 KTS
9. Best Landing Site.....	SELECTED
10. Communicate.....	121.5
Follow LANDING – NO POWER checklist	

PROPELLER OVERSPEED	
1. Throttle.....	RETARD to ACHIEVE 1800 RPM
2. Airspeed (climb to load prop).....	REDUCE
3. Oil Pressure.....	CHECK
4. Land.....	SELECT BEST SITE
5. Engine Seize..	FOLLOW LANDING – NO POWER

ALTERNATOR OUT	
1. Alternator Switch.....	OFF then ON
If condition persists:	
2. Alternator Switch.....	OFF
3. Nonessential Electrical Equipment.....	OFF

AUTOPILOT / STAB TRIM FAULT	
1. Airplane Attitude.....	MAINTAIN
2. AP DISC Switch.....	PRESS & HOLD
3. Manual Trim.....	RETRIM
4. Autopilot & Trim Circuit Breakers.....	PULL
5. AP DISC Switch.....	RELEASE

SPIN RECOVERY	
1. Throttle.....	IDLE
2. Ailerons.....	NEUTRAL
3. Rudder.....	OPPOSITE SPIN DIRECTION
4. Elevator.....	FULL FORWARD
5. Recovery.....	SMOOTH PULLOUT

ENGINE FIRE IN FLIGHT	
1. Fuel Selector Valve.....	OFF
2. Mixture.....	IDLE CUT-OFF
3. Propeller.....	FULL FORWARD
4. Throttle.....	CLOSE
5. Cabin Air Control (red).....	PULL OFF
6. Defrost Valve (red).....	PUSH OFF
7. Battery & Alternator Switches.....	OFF
8. Magneto/Start Switch.....	OFF
9. Do Not Attempt Restart	

EMERGENCY DESCENT	
1. Propeller.....	FULL FORWARD
2. Throttle.....	IDLE
3. Landing Gear.....	DOWN
4. Airspeed.....	135 KTS

LANDING GEAR EMERGENCY EXTEND	
1. Gear Motor Circuit Breaker.....	PULL
2. Gear Handle.....	DOWN
3. Throttle.....	12" or LESS
4. Airspeed.....	87 KTS
5. Emergency Extension Valve.....	OPEN
<i>Do Not Move Gear Controls until On Jacks</i>	
Recovery After Practice:	
6. Emergency Extension Valve.....	CLOSE
7. Gear Motor Circuit Breaker.....	IN
8. Gear Handle.....	UP

LANDING – GEAR RETRACTED	
1. Throttle.....	CLOSED
2. Airspeed.....	>70 KTS
3. Fuel Selector Valve.....	OFF
4. Mixture.....	IDLE CUT-OFF
5. Flaps.....	AS REQUIRED
6. Battery & Alternator Switches.....	OFF
7. Magneto/Start Switch.....	OFF
8. Wings Level at Touchdown	
GET CLEAR OF AIRPLANE	

LANDING – NO POWER	
1. Throttle.....	CLOSED
2. Fuel Selector Valve.....	OFF
3. Mixture.....	IDLE CUT-OFF
4. Magneto/Start Switch.....	OFF
5. Landing Approach Airspeed.....	>74 KTS
6. Flaps.....	AS REQUIRED
7. Landing Gear (based on terrain).....	UP or DOWN
8. Battery & Alternator Switches.....	OFF
9. Fuel Boost Pump.....	OFF

1. CABIN	
a) Required Documents.....	A.R.O.W.
b) Parking Brake.....	SET
c) Control Lock.....	REMOVE
d) Ignition Switch.....	OFF / KEY on dash
e) Landing Gear Handle.....	DOWN
f) All Switches (except Beacon).....	OFF
g) Circuit Breakers.....	CHECK
h) Battery Switch.....	ON
i) Fuel Qty Indicators (reads full @22/tank).....	CHECK
j) All Exterior Lights.....	ON
k) Pitot Cover.....	REMOVED
l) Pitot Heat Switch.....	ON
m) Exterior Lights.....	CHECK OPERATION
n) Pitot Tube.....	CLEAR / WARM
o) Stall Warning.....	CHECK
p) Exterior Lights.....	ALL OFF, BEACON ON
q) Pitot Heat.....	OFF
r) Battery Switch.....	OFF
s) Flush-Type Fuel Drain Tool.....	OBTAIN

2. LEFT WING TRAILING EDGE	
a) Flap.....	CHECK
b) Fuel Vent Line.....	UNOBSTRUCTED
c) Aileron.....	CHECK
d) Wing Tip.....	CHECK
e) Position Light.....	CHECK

3. LEFT WING LEADING EDGE	
a) Pitot Tube (Remove Cover).....	CHECK
b) Landing Light.....	CHECK
c) Tie Down and Chocks.....	REMOVE
d) Stall Warning.....	CHECK
e) Fuel Tank Qty (29.9 Full/20 Slot/15 Tab) ...	CHECK

4. LEFT LANDING GEAR	
a) Wheel Well, Tire & Brake.....	CHECK
b) Fuel Sump (use fuel-drain tool).....	DRAIN

5. NOSE SECTION	
a) Left Cowl.....	SECURE
b) Induction Air Intake.....	CLEAR
c) Air Filter (securely attached).....	CHECK
d) Propeller.....	CHECK
e) Tire and Nose Gear.....	CHECK
f) Engine Oil (6-8 qts).....	CHECK, Cap – SECURE
g) Right Cowl.....	SECURE
h) Fuel Strainer (not locked open).....	DRAIN
i) Nose Wheel Chocks (if present).....	REMOVE

6. RIGHT LANDING GEAR	
a) Fuel Sump (use fuel-drain tool).....	DRAIN
b) Wheel Well, Tire & Brake.....	CHECK

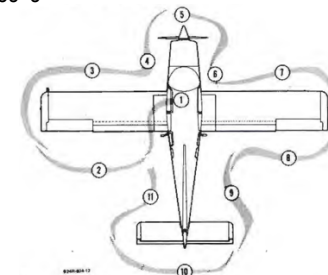
7. RIGHT WING LEADING EDGE	
a) Fuel Tank Qty (29.9 Full/20 Slot/15 Tab) ...	CHECK
b) Tie Down & Chocks.....	REMOVE
c) Wing Tip.....	CHECK
d) Position Light.....	CHECK

8. RIGHT WING TRAILING EDGE	
a) Aileron.....	CHECK
b) Flap.....	CHECK
c) Fuel Tank Vent Line.....	UNOBSTRUCTED

9. RIGHT FUSELAGE	
a) Static Pressure Port.....	UNOBSTRUCTED
b) ELT.....	ARMED

10. EMPENNAGE	
a) Control Surfaces.....	CHECK
b) Tie Down.....	REMOVE
c) Position Light.....	CHECK

11. LEFT FUSELAGE	
a) Static Pressure Port.....	UNOBSTRUCTED
b) All Antennas.....	CHECK
c) Baggage Door.....	SECURE



V-SPEEDS (Kts IAS)		INFO	
V _{so}	60	Cruise Climb	96
V _s - stall	65	Landing	70
V _r - rotate	66	Go Around	70
V _x - angle	71	Emer Lndg	74
V _y - rate	85	Emer Descent	135
V _g - glide	91	Max Xwind	17
V _{lo} ret/ext	135/113	Fuel- max/use	60 / 57
V _{re} - flap	96	Oil- full/min	8 / 6
V _a - manv	125	Max Bags	270
V _{no}	143	MTOW	2750
V _{ne} - max	168	MLW	2750

BEFORE STARTING ENGINE	
1. Seats.....	POSITION and LOCK
2. Seat Backs.....	UPRIGHT
3. Seat Belts & Shoulder Harness.....	FASTENED
4. Passengers.....	BRIEFED
5. Brakes.....	HOLD
6. All Avionics.....	OFF
7. Circuit Breakers.....	IN
8. Landing Gear Switch Handle.....	DOWN
9. Flaps.....	UP
10. Light Switches.....	AS REQUIRED
11. Battery Switch.....	ON
12. Alternator.....	ON
13. Fuel Selector Valve.....	ROTATE 360°
14. Fuel Selector Valve.....	SET on fullest tank

NO TAKEOFF IF EITHER FUEL TANK IN YELLOW

STARTING ENGINE (with battery)

1. Beacon..... ON
2. Brakes..... HOLD
3. Propeller..... FULL FORWARD
4. Propeller Area..... CLEAR

Cold Start:

- a) Mixture..... FULL RICH
- b) Throttle..... FAST IDLE
- c) Fuel Boost Pump (3 sec)..... ON
- d) Fuel Boost Pump..... OFF
- e) Start Switch (30 sec max)..... START

Hot Start:

- a) Mixture..... FULL RICH
- b) Throttle..... FAST IDLE
- c) Fuel Boost Pump (2 sec max)..... ON
- d) Fuel Boost Pump..... OFF
- e) Mixture..... IDLE CUT-OFF
- f) Start Switch (30 sec max)..... START
- g) Mixture..... ADVANCE WHEN FIRES

Flooded Start:

- a) Mixture..... IDLE CUT-OFF
- b) Throttle..... FULL OPEN
- c) Start Switch (30 sec max)..... START
- d) Mixture..... ADVANCE WHEN FIRES
- e) Throttle..... RETARD TO FAST IDLE

Starting Continuation:

5. Oil Pressure (*within 30 sec*)..... ABOVE RED
6. Warm-up..... 1000 – 1200 RPM
7. Starter Warning Light..... EXTINGUISHED
8. Ammeter..... <25% OF FULL CHARGE
9. Engine Instruments..... CHECK
10. Throttle..... IDLE
11. Avionics Equipment..... ON
12. Databases (*for intended flight*)..... CURRENT
13. G3X Initial Fuel (*EIS>Fuel Calc>Start Fuel*)..... SET
14. G3X Fuel Used (*EIS>Fuel Calc>Fuel Use*)..... RESET
15. ATIS & Baro Pressure..... SET
16. IFR Clearance (*if applicable*)..... RECORDED
17. Transponder..... ALT + CODE SET
18. G3X Active FPL>FPL Source..... EXTERNAL
19. Flight Plan (*750 or 355 req'd for IFR*)... ENTERED
20. Airport Taxi Diagram..... DISPLAYED
21. Lights..... AS REQUIRED
22. Parking Brakes..... RELEASE
23. Brakes..... RELEASE and CHECK

ENGINE FIRE DURING START

1. Fuel Selector Valve..... OFF
2. Throttle..... CLOSE
3. Mixture..... IDLE CUT-OFF
4. Battery and Alternator Switches..... OFF
5. Magneto/Start Switch..... OFF
6. Fire Extinguisher..... EXTINGUISH FIRE

BEFORE TAKEOFF

1. Brakes..... HOLD
2. Starter Warning Light..... EXTINGUISHED
3. Ammeter..... <25% OF FULL CHARGE
4. Engine Instruments..... CHECK
5. Avionics..... CHECK
6. Flight Instruments..... CHECK & SET
7. Heading Bug..... SET to RUNWAY HDG

Autopilot:

- a) Autopilot (AP button)..... ENGAGE
- b) Flight Controls (*overpower pitch & roll*)..... CHECK
- c) AP Disconnect Button (*audible tone*)..... PRESS
- d) Flight Controls..... FREE
- e) Altitude Select (*cleared altitude*)..... SET
- f) Go Around Button..... PRESS
- g) G3X AFCS Status (*TO-Takeoff Mode*)..... CHECK
8. Throttle..... 2000 RPM
9. Magnetos (*100 RPM drop*)..... CHECK
10. Propeller (*300-400 RPM drop*)..... EXERCISE x 3
11. Throttle..... 1000 RPM
12. Trim Switches..... CHECK
13. Stabilator Trim..... TAKE OFF
14. Flaps..... 15 DEG
15. Flight Controls..... FREE & CORRECT
16. Fuel Selector..... FULLEST TANK
17. Mixture..... FULL RICH or PER ELEVATION
18. Seat Belts & Harness..... CHECK
19. Doors & Windows..... SECURE
20. Takeoff Briefing..... COMPLETE
21. Lights..... AS REQUIRED
22. Parking Brake..... RELEASED

SHUTDOWN

1. Brakes..... HOLD
2. Throttle..... 1500 RMP
3. Mixture..... LEANED – 20 SEC
4. Com..... CHECK 121.5
5. Throttle..... IDLE
6. Avionics Equipment..... OFF
7. Throttle..... CLOSE
8. Mixture..... IDLE CUT-OFF
9. Battery & Alternator Switches..... OFF
10. All Switches (*except Beacon*)..... OFF
11. Magneto/Start Switch..... OFF
12. Keys..... ON DASH
13. Control Lock..... INSTALL
14. Pitot Cover..... INSTALL
15. Wheel Chocks..... INSTALL
16. Tie Downs..... INSTALL
17. Nose Plugs..... INSTALL
18. Tires & Aircraft..... INSPECTED
19. Shade/Canopy Cover..... INSTALL
20. Pilot, Copilot & Baggage Doors..... LOCKED

TAKEOFF

1. Flaps..... VERIFY 15 DEG
2. Takeoff Trim..... VERIFY
3. Throttle..... FULL FORWARD
4. Engine Instruments..... CHECK
5. Brakes..... RELEASE
6. Rotation..... **66 KTS**
7. Landing Gear (*+rate, no runway*)..... RETRACT
8. Climb (*V_x short field / V_y normal*)..... **71 / 85 KTS**
9. Flaps (*clear of obstacles*)..... UP
10. Noise Abatement (*if req'd*)..... 2500 RPM

Autopilot:

- a) AP Button (*>800 ft AGL*)..... ENGAGE
- b) Heading Bug Knob..... PRESS to SYNC
- c) Autopilot HDG Mode..... ENGAGE
- d) Autopilot IAS Mode..... ENGAGE
- e) Autopilot Control Wheel..... ADJUST to **85 KTS**
- f) G3X AFCS Status Box..... VERIFY

CRUISE CLIMB

1. Climb Speed (*>1000 ft AGL*)..... **96 KTS**
2. Gear & Flaps..... VERIFY UP
3. Power..... AS REQUIRED
4. Mixture..... LEAN AS REQUIRED
5. Temperature..... MONITOR

Autopilot:

- a) Altitude Select (*cleared altitude*)..... SET
- b) Heading Bug..... SET
- c) Autopilot HDG, TRK or NAV Mode..... ENGAGE
- d) Autopilot IAS Mode..... ENGAGE
- e) Autopilot Control Wheel..... ADJUST to **96 KTS**
- f) G3X AFCS Status Box..... VERIFY

CRUISE

1. Propeller..... **>2400 RPM**
2. Cruise Power..... SET
3. Mixture (*if power >75%*)..... FULL RICH
4. Fuel Tank (*every 30 min*)..... SWITCH
5. Engine Instruments..... MONITOR

Leaning (if power ≤75%):

- a) G3X Lean (*EIS>Lean Assist*)..... ENGAGE
- b) Mixture (*ΔEGT solid blue*)..... LEAN to 1st PEAK
- c) Mixture (*ΔEGT -50 to -75 ROP*)..... ENRICH (FWD)

DESCENT

1. ATIS / Baro Pressure..... SET
2. Power (*avoid extended low CHT*).. AS REQUIRED
3. Mixture..... ENRICH as REQUIRED

Autopilot (Vert. Speed):

- a) Altitude Select (*cleared altitude*)..... SET
- b) Autopilot VS Mode..... ENGAGE
- c) Autopilot Control Wheel..... ADJUST -FPM
- d) G3X AFCS Status Box..... VERIFY

Autopilot (VNAV):

1. GTN750 Flight Plan..... SELECT
2. Waypoint Altitude Constraints..... SET
3. Altitude Select (*lowest cleared altitude*)..... SET
4. Autopilot VNAV Mode (*prior to TOD*)..... ENGAGE
5. G3X AFCS Status Box..... VERIFY

APPROACH

1. ATIS & Baro Pressure..... SET
2. Approach (*GTN750 fit plan*)..... LOAD
3. ATC Approach Clearance..... RECEIVED
4. Approach (*GTN750 fit plan*)..... ACTIVATE
5. CDI (*green – ILS, magenta – GPS*)..... VERIFY

Autopilot:

- a) Autopilot HDG for vectors, or NAV..... ENGAGE
- b) Approach Mode (*APR*)..... ENGAGE
- c) G3X Baro Minimum..... SET TO MDA
- d) Altitude Select (*Missed Approach*)..... SET
- e) G3X AFCS Status Box (*GP or GS arm*)... VERIFY
6. Landing Gear (*<135 kts*)..... DOWN & LOCKED
7. Airspeed..... **90 KTS**
8. Seat Belts and Harness..... SECURE
9. Fuel Selector Valve..... FULLEST TANK
10. Landing Lights..... AS REQUIRED

MISSED APPROACH

1. Mixture..... FULL RICH
2. Propeller..... FULL FORWARD
3. Throttle..... FULL FORWARD
4. Landing Gear..... UP
5. Airspeed..... **85 KTS**
6. Flaps..... UP

Autopilot:

- a) Go Around Button..... PRESS
- b) Autopilot NAV Mode..... ENGAGE
- c) Autopilot IAS Mode..... ENGAGE
- d) Autopilot Control Wheel..... ADJUST to **85 KTS**
- e) G3X AFCS Status Box..... VERIFY

BEFORE LANDING

1. Mixture..... FULL RICH
2. Flaps (*<96 kts*)..... DOWN
3. Airspeed..... **>70 KTS**
4. Propeller..... FULL FORWARD
5. Autopilot (*1000 ft – VFR / MDA – IFR*)..... OFF

AFTER LANDING

1. Landing and Taxi Lights..... AS REQUIRED
2. Flaps..... UP
3. Trim Tab..... SET to 0
4. Transponder..... VFR/1200
5. Airport Taxi Diagram..... DISPLAYED