

EMERGENCY + ABNORMAL CHECKLIST

For conditions to use this Emergency + Abnormal Checklist see page 1 of the Normal Checklist.

All such conditions are fully applicable also for this checklist.



Abnormal Checklist starts at page 9

WARNING LIGHTSpage 2

Engine

- Rough engine and/or power loss page 4
- RPM overspeed..... page 4
- RPM underspeed page 4
- Windmill engine start page 5
- Powered engine start page 5

Electric System

- Total electrical fail page 5

Smoke and Fire

- Engine fire in flight page 6
- Engine fire on ground page 6
- Electric fire / smoke in flight page 7
- Electric fire / smoke on ground page 7

Other Emergencies

- Suspicion of carbon monoxide..... page 8
- Unintentional flight into icing page 8
- Landing with defective main gear tire page 8
- Landing with defective brakes..... page 8

EMERGENCY LANDING

- | | | | |
|-----------|-------------------------|---------------|---|
| 1 | Airspeed..... | 73/68/60 KIAS | 1 |
| 2 | ATC..... | INFORM | 2 |
| 3 | Fuel tank selector..... | OFF | 3 |
| 4 | Mixture..... | IDLE CUT OFF | 4 |
| On final: | | | |
| 5 | Flaps..... | LDG | 5 |
| 6 | Ignition..... | OFF | 6 |
| 7 | Master switch..... | OFF | 7 |

WARNING LIGHTS

OIL PRESS

OIL PRESSURE < 25 PSI

- | | | | |
|---|---|---------------|---|
| 1 | Oil pressure (OP)..... | CHECK | 1 |
| 2 | Oil temperature (OT)..... | CHECK | 2 |
| 3 | Cylinder head temperature (CHT)..... | CHECK | 3 |
| <ul style="list-style-type: none"> • OP indication below green and OT normal | | | |
| 4 | OT and CHT | MONITOR | 3 |
| <ul style="list-style-type: none"> • OP indication below green and OT or CHT rising | | | |
| 5 | Engine power..... | REDUCE TO MIN | 4 |
| Land ASAP,
be prepared for Emergency Landing | | | |
| <ul style="list-style-type: none"> • OP near zero, vibration, loss of oil, smoke | | | |
| 6 | Mechanical failure..... | SUSPECT | 5 |
| 7 | Engine..... | SHUT DOWN | 6 |
| Emergency landing | | | |

ALTERNATOR

ALTERNATOR FAILURE

- | | | | |
|------------|----------------------------|-----------------|---|
| 1 | Emergency switch..... | ON | 1 |
| 2 | Essential bus..... | ON | 2 |
| 3 | Circuit breakers..... | CHECK | 3 |
| If all OK: | | | |
| 4 | Unnecessary equipment..... | OFF | 4 |
| 5 | Voltmeter..... | CHECK regularly | 5 |

FUEL PRESS**FUEL PRESSURE < 14 PSI**

- 1 Fuel flow CHECK 1
 - If fuel flow high (red range):
Suspect fuel leak,
Land ASAP

START**STARTER NOT DISENGAGING**

- 1 Throttle..... IDLE 1
- 2 Mixture IDLE CUT OFF 2
- 3 Ignition..... OFF 3
- 4 Master switch..... OFF 4

TRIM FAIL**AUTOPILOT TRIM FAIL**

- 1 AP DISC switch (red button) PRESS 1
- 2 AP circuit breaker PULL 2

DOORS**DOOR(S) OPEN OR UNLOCKED**

- 1 Airspeed..... REDUCE 1
- 2 Canopy and rear doorCHECK visually 2
 - If unable to latch:
Land ASAP

Never unlatch rear door during flight

ROUGH ENGINE AND/OR POWER LOSS

- 1 Airspeed..... 73/68/60 KIAS 1
- 2 Electrical fuel pump ON 2
- 3 Fuel tank selector CHECK 3
- 4 Engine instruments..... CHECK 4
- 5 Throttle and propeller lever..... CHECK 5
- 6 Mixture SET 6
- 7 Alternate air OPEN 7
- 8 Ignition status light CHECK 8
- 9 Ignition CB PULL 9
 - If no success and insufficient power:
Land ASAP

RPM OVERSPEED

- 1 Friction adjuster CHECK 1
- 2 Oil pressure CHECK 2
 - If oil pressure lost:
Adjust RPM with power lever
Continue with
LOW OIL PRESSURE CHECKLIST

RPM UNDERSPEED

- 1 Electrical fuel pump ON 1
- 2 Fuel tank selector CHECK 2
- 3 Friction adjuster CHECK 3
- 4 Propeller control..... HIGH RPM 4
 - If no success:
Regulate RPM with throttle
Land ASAP

WINDMILL ENGINE START

- | | | | |
|----------------|---------------------------|----------------|---|
| 1 | Airspeed..... | 73 - 80 KIAS | 1 |
| 2 | Fuel tank selector..... | FULLEST TANK | 2 |
| 3 | Ignition..... | BOTH | 3 |
| 4 | Mixture..... | CHECKED | 4 |
| 5 | Electrical fuel pump..... | ON | 5 |
| 6 | Alternate air..... | OPEN | 6 |
| If no success: | | | |
| 7 | Mixture..... | LEAN | 7 |
| 8 | Mixture..... | SLOWLY TO RICH | 8 |

POWERED ENGINE START

- | | | | |
|---|---------------------------|---------|---|
| 1 | Airspeed..... | 80 KIAS | 1 |
| 2 | Electrical equipment..... | OFF | 2 |
| 3 | Avionic master..... | OFF | 3 |
| 4 | Master switch..... | ON | 4 |
| 5 | Mixture..... | CHECKED | 5 |
| 6 | Fuel tank selector..... | CHECKED | 6 |
| 7 | Electric fuel pump..... | ON | 7 |
| 8 | Alternate air..... | OPEN | 8 |
| 9 | Ignition..... | START | 9 |

TOTAL ELECTRIC FAIL

- | | | | |
|--|-----------------------|--------------------|---|
| 1 | Circuit breakers..... | CHECK, PULL, RESET | 1 |
| 2 | Essential bus..... | ON | 2 |
| • If no success: | | | |
| 3 | Emergency switch..... | ON | 3 |
| 4 | Flood light..... | ON | 4 |
| 5 | Power..... | SET | 5 |
| according power lever position and/or engine noise | | | |
| 6 | Flaps..... | VERIFY POSITION | 6 |
| Land ASAP | | | |

ENGINE FIRE IN FLIGHT / AFTER TAKE OFF

- | | | | |
|-----------------------|---------------------------|----------------------|----|
| 1 | Cabin heat..... | OFF | 1 |
| 2 | Emergency landing..... | PREPARE | 2 |
| 3 | Airspeed..... | 73/68/60 KIAS | 3 |
| 4 | ATC..... | INFORM | 4 |
| 5 | Canopy..... | UNLATCH as necessary | 5 |
| When landing assured: | | | |
| 6 | Fuel tank selector..... | OFF | 6 |
| 7 | Throttle..... | MAX PWR if possible | 7 |
| 8 | Electrical fuel pump..... | OFF | 8 |
| 9 | Master switch (BAT)..... | ON | 9 |
| 10 | Emergency window..... | OPEN if required | 10 |
| On final: | | | |
| 11 | Mixture..... | IDLE CUT OFF | 11 |
| 12 | Flaps..... | LDG | 12 |
| 13 | Ignition..... | OFF | 13 |
| 14 | Master switch..... | OFF | 14 |

ENGINE FIRE ON GROUND

- | | | | |
|----------------------|--------------------------|-----------|---|
| 1 | Fuel tank selector..... | OFF | 1 |
| 2 | Cabin heat..... | OFF | 2 |
| After standstill: | | | |
| 3 | Throttle..... | MAX POWER | 3 |
| 4 | Master switch (BAT)..... | OFF | 4 |
| When engine stopped: | | | |
| 5 | Ignition..... | OFF | 5 |
| 6 | Canopy..... | OPEN | 6 |
| Evacuate | | | |

ELECTRIC FIRE / SMOKE IN FLIGHT

- | | | | |
|----|-------------------------------|----------------------|---|
| 7 | Emergency switch | ON | 1 |
| 8 | Canopy | UNLATCH as necessary | 2 |
| 9 | Master switch (ALT/BAT) | OFF | 3 |
| 10 | Cabin heat..... | OFF | 4 |
| 11 | Emergency window..... | OPEN as necessary | 5 |

Land ASAP

- If electronics/avionics required apply isolation procedure:

- | | | | |
|----|--------------------------|----|---|
| 12 | Master switch (BAT)..... | ON | 6 |
| 13 | Essential bus | ON | 7 |

- If smoke decreases:
Land ASAP

- If smoke persists:

- | | | | |
|----|--|------|----|
| 14 | Master switch (ALT)..... | ON | 8 |
| 15 | Essential bus | OFF | 9 |
| 16 | BATT and ESS TIE circuit breakers..... | PULL | 10 |

Land ASAP

ELECTRIC FIRE / SMOKE ON GROUND

- | | | | |
|---|--------------------------|--------------|---|
| 1 | Master switch (BAT)..... | OFF | 1 |
| 2 | Throttle..... | IDLE | 2 |
| 3 | Mixture | IDLE CUT OFF | 3 |

When engine stopped:

- | | | | |
|---|--------------|------|---|
| 4 | Canopy | OPEN | 4 |
|---|--------------|------|---|

Evacuate

SUSPICION OF CARBON MONOXIDE

- | | | | |
|---|-------------------------|---------|---|
| 1 | Cabin heat..... | OFF | 1 |
| 2 | Ventilation..... | OPEN | 2 |
| 3 | Emergency windows | OPEN | 3 |
| 4 | Forward canopy | UNLATCH | 4 |

UNINTENTIONAL FLIGHT INTO ICING

- | | | | |
|---|-----------------------------|------------------|---|
| 1 | Pitot heat | ON | 1 |
| 2 | Cabin heat..... | ON | 2 |
| 3 | Cabin air distribution..... | UP | 3 |
| 4 | RPM..... | INCREASE | 4 |
| 5 | Alternate air | OPEN | 5 |
| 6 | Emergency windows | OPEN as required | 6 |

Leave icing area, inform ATC

When pitot heat fails:

- | | | | |
|---|------------------------------|--------|---|
| 7 | Alternate static valve | OPEN | 7 |
| 8 | Emergency windows | CLOSED | 8 |

LANDING WITH DEFECTIVE MAIN GEAR TIRE

- | | | | |
|---|----------|----------|---|
| 1 | ATC..... | INFORMED | 1 |
|---|----------|----------|---|

For landing:

- Land on RWY side with "good" tire
- Keep wing on "good" side low
- Support directional control with brake

LANDING WITH DEFECTIVE BRAKES

After touchdown (if necessary):

- | | | | |
|---|-------------------------|--------------|---|
| 1 | Fuel tank selector..... | OFF | 1 |
| 2 | Mixture | IDLE CUT OFF | 2 |
| 3 | Ignition..... | OFF | 3 |
| 4 | Master switch..... | OFF | 4 |

CAUTION LIGHTS

PITOT	Page 1	Pitot heating system OFF
LOW FUEL	No procedure	Fuel qty low (< 3 USG) Single aural alert: left or right tank Continuous aural alert: both tanks
LOW VOLTS	Page 1	Bus voltage too low

Engine instrument indications outside of green range

OIL pressure low / highpage 10
 OIL temperature highpage 10
 CYLINDER Head Temp high / lowpage 11
 EXHAUST GAS Temp high / low.....page 11
 FUEL FLOW highpage 11
 VOLT high (overvoltage)page 11
 Manifold pressure high.....page 11

PITOT**PITOT HEATING SYSTEM FAILED OR OFF**

- check pitot heat ON
 - ❖ if in icing conditions
 - ⇒ expect failure of the pitot-static-system
 - ⇒ alternate static valve: OPEN
 - ⇒ leave area with icing conditions

LOW VOLTS**BUS VOLTAGE TOO LOW**

Remark: possible reasons are
 - malfunction of electrical supply
 - RPM too low

- ❖ On ground
 - ⇒ Increase RPM to 1200
 - ⇒ Electrical equipment OFF
 - ⇒ Check Ammeter and voltmeter
 - ❖ If light still ON
 - ⇒ Terminate flight preparation
- ❖ In flight
 - ⇒ Switch off unnecessary electrical equipment
 - ⇒ Check Ammeter and voltmeter
 - ❖ If light still ON
 - ⇒ Apply "ALTERNATOR FAIL"-emergency procedure
 (Emergency Checklist page 2)

OIL pressure low

- Check OIL PRES LO warning light
 - ❖ OIL PRES LO warning light ON or flashing
 - ⇒ Apply "OIL PRES LO"-emergency procedure
 (Emergency Checklist page 2)
 - ❖ OIL PRES LO warning light OFF
 - ⇒ Check oil temperature and cylinder head temperature (CHT)
 - ❖ Oil temperature and CHT normal
 - ⇒ Monitor oil pressure warning light
 (suspect faulty oil pressure indication)
 - ⇒ Monitor oil temperature and
 cylinder head temperature
 - ❖ Oil temperature or CHT rising
 - ⇒ Reduce engine power to minimum
 - ⇒ Land ASAP
 - ⇒ Be prepared for engine failure and emergency landing
 - ❖ Oil pressure near zero, vibration, loss of oil, smoke
 - ⇒ Suspect mechanical failure in the engine
 - ⇒ Shut down engine immediately
 - ⇒ Perform emergency landing

Oil (OP) pressure high

- Check oil temperature
 - ❖ If oil temperature normal:
 - ⇒ suspect faulty oil pressure indication, continue flight

Oil (OT) temperature high

- Check cylinder head temperature and EGT
 - ❖ If CHT and EGT normal:
 - ⇒ Suspect faulty oil temperature indication, continue flight
 - ❖ If CHT or EGT high:
 - ⇒ Check oil pressure
 - ❖ If oil pressure low:
 - ⇒ Continue with OIL pressure LOW checklist
 - ❖ If oil pressure in green range:
 - ⇒ Check mixture setting, enrich if necessary
 - ⇒ Reduce power
 - ❖ If no success:
 - ⇒ Land ASAP

Cylinder head temperature (CHT) or EGT high

- Enrich mixture
- Check oil temperature
 - ❖ If oil temperature also high:
 - ⇒ Check oil pressure
 - ❖ If oil pressure low:
 - ⇒ Continue with abnormal checklist "Oil pressure low" (page 10)
 - ❖ If oil pressure in green range:
 - ⇒ Reduce power
 - ❖ If no success
 - ⇒ Land ASAP, be prepared for emergency landing

Cylinder head temperature (CHT) or EGT low

- A very low reading for a single cylinder may be the result of a loose sensor

FUEL FLOW high

- Check FUEL PRESS warning light
 - ❖ If ON:
 - ⇒ Suspect fuel leak
 - ⇒ Land ASAP
 - ❖ If OFF:
 - ⇒ Continue flight
 - ⇒ Take fuel flow from AFM
 - ⇒ Check fuel quantity frequently

OVER VOLTAGE

- Essential bus ON
- Master switch (ALT) OFF
- Master switch (BAT) ON
- Switch OFF unnecessary equipment
- Land ASAP

Manifold pressure (MP) high

- ❖ If clearly above green range:
 - ⇒ Reading is faulty

Contacts

Flight Service.....	1800-WX-BRIEF
Reno FSS.....	122.5
Flight Watch.....	122.0
Emergency.....	121.5

Airports

Beckworth (O02) CTAF.....	122.8
TPA.....	5700
Carson City (CXP) AWOS / CTAF.....	119.925 / 123.0
TPA.....	5497
Minden (MEV) AWOS / CTAF.....	119.325 / 123.05
TPA.....	5700
Lake Tahoe (TVL) ASOS / CTAF.....	124.725 / 122.95
TPA.....	7500
Lovelock (LVL) ASOS / CTAF.....	120.675 / 122.8
TPA.....	4704
Reno (RNO) ATIS.....	135.85
Apch N.....	126.3
Apch S.....	119.2
Tower.....	118.7
Ground.....	121.9
Clearance.....	124.9
TPA.....	5215
Sierraville (O79) CTAF.....	122.9
TPA.....	5784
Stead (4SD) AWOS / CTAF.....	135.175 / 122.7
UNICOM (M-F 8:00am-5:00pm).....	122.775
TPA.....	5800
Susanville (SVE) AWOS / CTAF.....	133.8 / 122.8
TPA.....	4949
Truckee (TRK) AWOS / CTAF.....	118.0 / 122.8
TPA.....	7000



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