

## NOP Checklist

### ABBREVIATED CHECKLIST ZLIN 242L

#### WARNINGS:

Aerobatics is **prohibited** with fuel in wingtip fuel tanks

Aerobatics is **prohibited** with less than 5 liters of oil

Aerobatics is **prohibited** with items on baggage shelf

#### 1. BEFORE ENTERING AIRCRAFT

1. Weight and Balance.....CALCULATED
2. External inspection.....DONE
3. Chocks.....REMOVED
4. Pitot and static air protection.....REMOVED
5. Lifewests and first aid kit.....CHKD
6. Fire Extinguisher.....CHKD
7. Loose objects.....SECURED
8. Ignition switch.....OFF
9. Propeller turn by hand.....CHECK COMPRES.

#### 2. BEFORE ENGINE START

1. TACHO.....NOTE
2. Seat.....ADJUST
3. Harness.....LOCKED
4. Controls.....UNLOCK
5. Wing flaps.....CHECK
6. Parking brake.....SET
7. Cowl Flap.....PULL – CLOSED
8. Nitrogen pressure.....CHECK
9. Master switch.....ON
10. Battery switch.....ON
11. Generator switch.....ON
12. Engine Instr. switch.....ON
13. Flight Instr. switch.....ON
14. Fuel quantity.....CHECK
15. Annunciators.....3 LIGHTS ON  
(stall warn failure, generator, oil pressure loss)
16. Signaling.....PRESS+RELEASE  
(check horn + light in all annunciators)
17. Static and pitot Heating.....ON+OFF  
(check annunciator + discharge increase)

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#### 3. ENGINE START

1. Fuel valve.....L+R (BOTH)
2. Comm/Nav I+II.....CHECK OFF
3. Lighting.....CHECK OFF
4. Beacon.....ON
5. Throttle.....3 CM OPEN
6. Prop.....PUSH (high RPM)
7. Mixture.....PUSH (full rich)
8. Fuel pump (if necessary).....ON+OFF  
(4-5 sec. until fuel pressure stabilizes)
9. Fuel pressure.....CHECK (min. 14 psi)
10. Mixture.....PULL (full lean)
11. Propeller area.....CHECK CLEAR
12. Brakes.....APPLY
13. Ignition switch.....START
14. Mixture.....PUSH (full rich)
15. Throttle.....1000 RPM
16. Comm/Nav I+II.....ON
17. Lighting switch.....ON
18. Flight Instr. switch.....ON
19. Oil pressure.....CHECK  
(min. 25 psi within 30 sec., or shut down engine!)
20. Time / Timer.....NOTE / ENGAGE
21. Time/Timer.....CHECK / NOTE  
(for block time)
22. Radios and Transponder.....SET / SBY
23. G-meter.....RESET
24. AMU.....CHECK  
(check diode flash regularly every 2 sec. )

#### 4. NIGHT / NAV / ILS PREPARATION (optional)

1. Instrument light dimmers.....SET
2. Map light.....TEST / SET  
(canopy must be closed for the map light to work)
3. External GPS.....PROGRAMMED
4. External GPS power.....CONNECTED
5. ADF ANT/ADF.....CHECK "CAGING"
6. ADF TEST.....PERFORMED  
(EKAH TL: 384.0, Check code "- -.-")

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7. NAV1 TEST.....PERFORMED  
(EKAH LOC: 111.9, Check code ":- :-")
8. DME.....RMT
9. MKR LIGHTS.....TEST
10. Landing light.....ON+OFF  
(check discharge increase)
11. Flash light.....CHECK

#### 5. ENGINE WARM-UP AND GROUND RUNNING

1. Engine Speed.....1200 → 1600 RPM
2. Generator annunciator.....CHECK OFF
3. VA meter.....>= 25 V
4. AMP meter.....CHECK
5. Fuel valve.....CHECK  
(Check engine runs smoothly on LEFT and RIGHT)
6. Oil temperature.....~ 60°C  
(may take 2-6 minutes)

#### 6. BEFORE TAXI CHECK

1. Altimeter.....SET (+/- 60')
2. Attitude indicator.....ERECT AND SET
3. Flaps.....RETRACTED
4. Taxi light.....ON
5. Parking brake.....RELEASE
6. Brakes.....CHECK
7. Flight instruments movement.....CHECK WHILE TAXIING

#### 7. ENGINE RUN-UP CHECK

**CAUTION:** Do **not** perform engine run-up on loose terrain!

1. Brakes.....APPLY
2. Control stick.....PULL
3. Throttle.....2200 RPM
4. Oil pressure.....GREEN
5. Fuel pressure.....GREEN
6. Magnetos.....CHECK  
(Max. drop 175 RPM, Max diff. 50 RPM)
7. Prop.....3 x (PULL – PUSH)
8. Prop.....2100 RPM
9. Throttle / Manifold pressure.....+ 3 inHg

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10. Throttle / Prop.....1200 / FULL
11. Controls.....FULL FREE MOVEMENT
12. Elevator trim.....NEUTRAL POS.
13. Rudder trim.....½ FULL RIGHT
14. Cowl flap.....OPEN (if OAT > -5°C)
15. Canopy.....LOCKED AND CHKD
16. Fuel valve.....L+R (BOTH)
17. AMU.....RECHECK
18. AMP meter.....CHECK < 5A CHARGE
19. CO detector.....CHECK
20. Helmet visor.....DOWN

#### 8. BEFORE TAKE-OFF CHECK (ON RWY)

1. Time.....NOTE  
(for airborne time)
2. Gyro compass.....RWY HEADING
3. Transponder.....ALT
4. Flaps.....TAKEOFF POS.
5. Fuel pump.....ON
6. Pitot Heating.....AS DESIRED
7. Static Heating.....AS DESIRED
8. Landing light.....ON  
(just before rolling)

#### 9. TAKE-OFF

1. Throttle.....FULL
2. Oil pressure.....GREEN
3. Rotate.....55 kts
4. Climb.....70-75 kts

#### 10. AFTER TAKE-OFF CHECK

1. Flaps.....UP (300' AGL)
2. Fuel pump.....OFF
3. Landing light.....OFF
4. Taxi light.....OFF
5. Climb.....80 kts

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### 11. CRUISE CHECK

1. Manifold pressure & Prop.....AS DESIRED  
(65%: 22.9 / 2350)  
(75%: 24.3 / 2450)
2. Cowl flap.....CLOSE
3. Prop.....CHECK 2100 rpm
4. Mixture.....LEAN  
(star on EGT meter)

### 12. DESCENT CHECK

1. Altimeter.....SET
2. Mixture.....RICH
3. Cowl flap.....CLOSE  
(if risk of engine overcooling)
4. Cylinder head temp.....MONITOR

### 13. BEFORE LANDING CHECK

1. Fuel quantity.....CHECK
2. Fuel valve.....L+R (BOTH)
3. Engine instruments.....CHECK
4. Mixture.....PUSH (full rich)
5. Flaps.....TAKE OFF POS.
6. Landing Light.....ON
7. Fuel pump.....ON

### 14. LANDING (BASE / FINAL)

1. Flaps.....LANDING POS.
2. Prop.....PUSH (high RPM)
3. Speed on final.....75 kts.

### 15. AFTER LANDING CHECK

1. Flaps.....UP
2. Landing light.....OFF
3. Taxi light.....ON
4. Fuel pump.....OFF
5. Pitot Heating.....OFF
6. Static Heating.....OFF
7. Transponder.....STD. BY.
8. Time.....NOTE

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### 16. ENGINE SHUTDOWN & PARKING

9. Throttle.....1800 RPM for 15 sec.
10. Magnetos.....CHECK GROUNDING
11. Comm/Nav I+II.....OFF
12. Flight Instr.....OFF
13. Lighting.....OFF
14. Mixture.....CUT OFF
15. All circuit switches.....OFF
16. Master switch.....OFF
17. Ignition switch.....OFF
18. Fuel valve.....OFF  
(for short break L or R)
19. Controls.....LOCK
20. Parking brake.....AS DESIRED
21. Cowl flap.....AS DESIRED
22. Flaps.....TAKEOFF → 0
23. Time / Timer (for block time).....NOTE/DISENGAGE
24. Tacho.....NOTE
25. Map and Cockpit light.....CHECK OFF
26. Max and Min G load.....NOTE
27. Canopy.....LOCK

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### **Motorstartsproblemer? Prøv denne guide.**

Det hjælper ikke på starten at hånd-cranke motoren inden opstart (pkt. 9 i checklisten), men det er godt at gøre alligevel idet man kan mærke at der er kompression på i alle cylindre og fordi man smører motoren inden opstart.

#### **Meget kold motor (-10 til 5 grader)**

→ Prime 5 sekunder. 2-3 cm på gashåndtag

#### **Kold motor (5-20 grader)**

→ Prime 4 sekunder. 3-4 cm. på gashåndtag

#### **Semivarm motor (f.eks. efter taxi til fuelstand)**

→ Prime 1 sek. 3 cm på gashåndtag.

#### **Varm motor (f.eks. efter flyvning)**

→ Prime 1 sek. 3-4 cm. på gashåndtag.

#### **Druknet motor**

→ Lad den stå lidt. Prime 1 sek. Fuld gas og crank lidt ekstra. Den skal nok komme. Vær klar til at reducere på gashåndtag.

(typiske symptomer på druknet motor er lugt af fuel i udstødning/udstødningsrør, evt. suppleret med dryp af fuel fra udstødningsrør og/eller dræn ved forhjulet)

(BLANK)

## EMERGENCY

### ZLIN 242L - EMERGENCY PROCEDURES

#### EP 1: ENGINE FAILURE DURING TAKE-OFF RUN

1. Throttle.....IDLE
2. Brakes.....AS REQUIRED
3. Obstacles.....AVOID
4. Fuel valve+Master +Ignition switch.....OFF

#### EP 2: ENGINE FAILURE AFTER TAKE-OFF

1. Airspeed.....78 kts (minimum)
2. Flaps.....AS NECESSARY
3. Obstacles.....AVOID
4. Fuel valve+Master +Ignition switch.....OFF

#### EP 3: ENGINE FAILURE IN FLIGHT

1. Aircraft.....MAINTAIN CONTROL
2. Fuel valve.....BOTH (L+R)
3. Fuel pump.....ON
4. Mixture.....PUSH (full rich)
5. Ignition switch.....BOTH
6. Airspeed and trim.....A:68 U:70 N:73 kts.  
(for max gliding range)

##### Engine restart – NO starter:

7. Prop.....PUSH (high RPM)
8. Throttle.....1/4 OPEN
9. Airspeed.....INCREASE  
(Expect 135-140 kts to restart propeller)

##### Engine restart – WITH starter:

7. Gliding speed.....MAINTAIN
8. Throttle.....1/4 OPEN
9. Ignition switch.....START
10. Master switch.....OFF
11. Safety belts.....TIGHTEN
12. Flaps.....AS REQUIRED

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#### EP 4: FORCED LANDING

1. Aircraft.....MAINTAIN CONTROL
2. Airspeed.....78-85 kts.
3. Landing area.....CHOOSE SUITABLE
4. Transponder / Radio.....7700 + MAYDAY
5. Fuel valve.....OFF
6. Ignition switch.....OFF
7. Master switch.....OFF
8. Safety belts.....TIGHTEN
9. Flaps.....AS REQUIRED

#### EP 5: COCKPIT FIRE

1. Fire source.....IDENTIFY / LOCATE
2. Electrical fire: Master switch.....OFF
3. Fire extinguisher.....USE IF NECESSARY
4. Ventilation.....OPEN FULLY
5. Emergency landing.....ASAP

In case of emergency.....BAIL OUT (**EP 8**)

#### EP 6: ENGINE FIRE ON GROUND

1. Fuel valve.....OFF
2. Throttle.....FULL
3. Ventilation and Heating.....PUSH + "0"

##### After engine stops:

4. Ignition switch.....OFF
5. Master switch.....OFF
6. Circuit switches.....OFF
7. Crew.....ABANDON
8. Fire Extinguisher.....USE

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**Kommenterede [JR1]:** EP3.10 og ned: Det skal man da vist kun, hvis der ikke kommer gang i motoren igen ☺

### EP 7: ENGINE FIRE IN FLIGHT

1. Fuel valve.....OFF
2. Throttle.....FULL
3. Fuel pump.....OFF
4. Ventilation and Heating.....PUSH + "0"

#### After engine stops:

5. Ignition.....OFF
6. Master switch.....OFF
7. Airspeed.....78-85 kts.

#### If fire continues:

8. EXECUTE ALTERNATE SIDESLIPS
9. INCREASE AIRSPEED

#### If fire is extinguished:

10. EXECUTE EMERGENCY LANDING

#### If fire still continues:

11. BAIL OUT (EP 8)

### EP 8: BAIL OUT

1. Aircraft heading.....UNSETTLED AREA
2. Transponder / Radio.....7700 + MAYDAY
3. Fuel valve.....OFF
4. Ignition switch.....OFF
5. Canopy emergency release.....OPEN  
(do **NOT** release canopy lock!)
6. Canopy.....PUSH UP
7. Headsets/Helmets.....THROW OUT/DISCONN.
8. Harness.....RELEASE
9. Aircraft.....ABANDON

### EP 9: GENERATOR FAILURE

1. V-A meter.....CHECK DRAIN / VOLTAGE
2. Generator switch.....RESET "ON"
3. V-A meter.....CHECK DRAIN / VOLTAGE

#### If current drain of battery continues:

4. Generator switch.....OFF
5. Static heating switch.....OFF  
(in IMC use alternate static source)
6. Unnecessary electrical equip.....OFF
7. Land as soon as practical, within 30 minutes

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### EP 10: OIL PRESSURE LOSS

1. Oil pressure gauge.....CHECK
2. Engine speed.....INCREASE

#### If oil pressure still under limit:

3. Engine speed.....DECREASE
4. Precautionary landing.....EXECUTE ASAP

### EP 11: LOW FUEL WARNING

1. Fuel valve.....MOST FULL TANK
2. Fuel pressure.....CHECK

### EP 12: FLIGHT IN ICING CONDITIONS

1. Pitot heat.....ON
2. Static heat.....ON
3. Heating on windshield.....OPEN FULLY
4. Flight level.....CHANGE
5. Ventilation.....CLOSE

#### If icing conditions continue:

6. Land.....ASAP

### EP 13: NITROGEN PRESSURE DROP

1. Land.....AS SOON AS PRACTICAL
2. High "G" maneuvers.....AVOID

### EP 14: DITCHING

1. Forced landing.....COMPLETE (EP 4)

#### Just before ditching:

2. Canopy emergency release.....OPEN  
(do **NOT** release canopy lock!)
3. Canopy.....PUSH UP

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