WCFC M20J EMERGENCY CHECKLIST N1068X

ENGINE POWER LOSS – TAKE-OFF ROLL

1. THROTTLE……..……CLOSED
2. BRAKES……..…..……AS REQ
3. FUEL SELECTOR……..…OFF
4. MAGNETO/STARTER SWITCH……OFF
5. MASTER……..…..OFF

ENGINE POWER LOSS – AFTER TAKEOFF & IN FLIGHT

(RESTART PROCEDURES)

1. AIRSPEED……85 KIAS
2. FUEL SELECTOR……SELECT OTHER TANK
3. FUEL PRESSURE……..VERIFY IN GREEN ARC
4. FUEL BOOST PUMP…..……ON
5. THROTTLE……..…….FULL FORWARD
6. PROPELLER…….....FULL FORWARD
7. MIXTURE…….....FULL FORWARD
8. MAGNETO STARTER…… VERIFY ON BOTH

IF ENGINE DOES NOT RESTART AFTER INITIAL ATTEMPTS

a. MIXTURE……..……IDLE CUTOFF (initially)
b. THEN ADVANCE SLOWLY TOWARD RICH UNTIL ENGINE STARTS

IF ENGINE DOES NOT RESTART

ESTABLISH BEST GLIDE SPEED AND PROCEED TO **FORCED LANDING EMERGENCY**

AFTER ENGINE RESTARTS

a. THROTTLE…..……ADJUST AS REQUIRED
b. PROPELLER…..……ADJUST AS REQUIRED
c. MIXTURE-RE-LEAN AS POWER IS RESTORED
d. **LAND AS SOON AS PRACTICAL AND CORRECT MALFUNCTION PRIOR TO NEXT FLIGHT**

ENGINE FIRE IN FLIGHT

1. FUEL SELECTOR VALVE……OFF
2. THROTTLE…….... CLOSED
3. MIXTURE……..... IDLE CUTOFF
4. MAGNETO/STARTER SWITCH……..……OFF
5. CABIN VENTS & HEATING CONTROLS..CLOSED
6. COWL FLAPS……CLOSED
7. LANDING GEAR…….**DOWN** or **UP** depending on terrain
8.WING FLAPS……...**EXTEND** as necessary

If fire is not extinguished, attempt to increase airflow over the engine by increasing glide speed and open cowl flaps. Proceed with **FORCED LANDING EMERGENCY**

ELECTRICAL FIRE IN FLIGHT

(SMOKE IN CABIN)

1. MASTER SWITCH……..……..…….....OFF
(STALL WARNING AND GEAR WARNING ARE NOT AVAILABLE WITH MASTER SWITCH OFF)
2. ALTERNATOR FIELD SWITCH……..…OFF
3. ALL ELECTRICAL SWITCHES……...OFF
4. CABIN VENTILATION……..OPEN
5. HEATING CONTROLS……AS DESIRED
6. CIRCUIT BREAKERS…CHECK to identify faulty circuit if possible.

If electrical power is essential for the flight, attempt to identify and isolate faulty circuit

a. MASTER SWITCH…….……...**ON**
b. ALTERNATOR FIELD SWITCH……..……**ON**
c. SELECT **ESSENTIAL** SWITCHES…….…. ***ON**

***ONE** AT A TIME, PERMIT A SHORT TIME TO ELAPSE BEFORE ACTIVATING AN ADDITIONAL CIRCUIT

7. **LAND AS SOON AS POSSIBLE**.

ENGINE FIRE DURING START ON THE GROUND

1. MAGNETO/STARTER SWITCH..CONTINUE cranking
If engine starts:
a. POWER……1500RPM for several minutes or until fire is extinguished
If engine does NOT start:
a. MAGNETO/STARTER SWITCH……..CONTINUE CRANKING
b. MIXTURE……..…..IDLE/CUTOFF
c. THROTTLE……FULL FORWARD
d. FUEL SELECTOR VALVE……OFF
e. MAGNETO/STARTER SWITCH……..……..…OFF
f. MASTER SWITCH……..…..…. OFF
g. EXTINGUISH…….…. WITH FIRE EXTINGUISHER

HIGH OIL TEMPERATURE

NOTE – PROLONGED HIGH OIL TEMPERATURE INDICATIONS WILL USUALLY BE ACCOMPANIED BY A DROP IN OIL PRESSURE. IF OIL PRESSURE REMAINS NORMAL, THEN A HIGH TEMPERATURE MAY BE CAUSED BY A FAULTY GAUGE OR TEMPERATURE PROBE.

1. COWL FLAPS……**OPEN**
2. AIRSPEED……..**INCREASE**
3. POWER……..……**REDUCE**

PREPARE FOR POSSIBLE ENGINE FAILURE IF TEMPERATURE CONTINUES HIGH.

LOW OIL PRESSURE

1. OIL TEMPORATURE AND PRESSURE…..**MONITOR**
2. PRESSURE BELOW 25 PSI…..EXPECT ENGINE FAILURE

PROCEED TO **FORCED LANDING EMERGENCY**

FORCED LANDING EMERGENCY

POWER OFF – GEAR RETRACTED OR EXTENDED
1. ELT……**ARM**
2. SEAT BELTS/SHOULDER HARNESSES….**SECURE**
3. CABIN DOOR……..….**UNLATCHED**
4. FUEL SELECTOR VALVE……..…..**OFF**
5. MIXTURE……..……**IDLE/CUTOFF**
6. MAGNETO/STARTER……..……**OFF**
7. WING FLAPS……..……..**FULL DOWN (33°)**
8. LANDING GEAR **DOWN OR UP** (DEPENDING ON TERRAIN)
9. APPROACH SPEED……..**AS SLOW AS POSSIBLE**
10. MASTER SWITCH……..…..…...**OFF** (PRIOR TO LANDING)
11. LANDING……..……**LEVEL**, TAIL LOW ATTITUDE

ENGINE ROUGHNESS

1. ENGINE INSTRUMENTS……**CHECK**
2. FUEL SELECTOR……**OTHER TANK**
3. MIXTURE……**RE-ADJUST FOR SMOOTH OPERATIONS**
4. MAGNETO/STARTER….SELECT **R** OR **L** OR **BOTH**
   If roughness disappears on single magneto, monitor power and continue on selected magneto

SEE POH for power loss and rough engine WARNINGS
5. THROTTLE……..**REDUCE**

CHECK TO SEE IF A LESSER THROTTLE SETTING CAUSES ROUGHNESS TO DECREASE

IF SEVERE ENGINE ROUGHNESS CANNOT BE ELIMINATED
LAND AS SOON AS PRACTICABLE.

PROPELLER OVERSPEED

1. THROTTLE……..**RETARD**
2. OIL PRESSURE……....**CHECK**
3. PROPELLER……**DECREASE**, set if any control available
4. AIRSPEED……**REDUCE**
5. THROTTLE……**BELOW 2700 RPM**

ALTERNATOR OVERVOLTAGE

Steady voltage warning light and alternator field circuit breaker tripped.
1. AVIONICS MASTER……..….**OFF**
2. MASTER ……..…..**OFF**, THEN **ON**
3. ALTERNATOR Field Circuit Breaker……**RESET**

If circuit breaker will not reset, the following procedures are required:
ONLY RESET ALTERNATOR FIELD CIRCUIT BREAKER ONCE

OPEN DOOR

1. AIRSPEED ……**95 KIAS**
2. PILOT'S STORM WINDOW ……**OPEN**
3. AIRCRAFT ……**RIGHT SIDE-SLIP**
4. DOOR……..**PULL SHUT & LATCH**

LOW FUEL FLOW

1. MIXTURE……**RICH**
2. FUEL SELECTOR…… **OPPOSITE** (fullest) **TANK**

If condition persists, use Fuel Boost Pump as necessary and **LANDING SHOULD BE MADE AS SOON AS PRACTICAL.**

LANDING GEAR FAILURE

1. AIRSPEED……..……**132 KIAS** or less
2. LANDING GEAR ACTUATOR CIRCUIT BREAKER **PULL**
3. GEAR SWITCH……..**DOWN**
4. MANUAL GEAR SWITCH EXTENSION MECHANISM **LATCH FORWARD/LEVER BACK**
   To engage manual extension mechanism
5. T-HANDLE……**PULL** (7-20 times) and RETURN until gear is down and locked. GEAR DOWN light illuminated, STOP when resistance is felt.
6. VISUAL GEAR DOWN INDICATON….**CHECK ALIGNMENT**
7. **RETURN LEVER** to normal position and secure latch
8. **RESET** LANDING GEAR ACTUATOR C/B

(**Warning** – do not operate landing gear electrically with manual extension system engaged)

FAILURE OF LANDING GEAR TO RETRACT

1. AIRSPEED……**BELOW 107 KIAS**
2. GEAR SWITCH……..……**UP**

If gear fails to retract, gear horn – sounding, gear annunciator lights and gear by-pass light – **illuminated**
   a. GR SAFETY BY PASS SWITCH……..**DEPRESS** and hold until landing gear fully retracted
   b. GEAR DOWN and GEAR UNSAFE lights…. **OFF**
   c. GEAR RELAYS CIRCUIT BREAKER……..**PULL**

   If gear fails to retract
   d. EMERGENCY GEAR EXTENSION LEVER **VERIFY LACHED** IN PROPER POSITION
   e. GEAR RELAY CIRCUIT BREAKER……..……**RESET**
   f. WHEN READY TO EXTEND LANDING GEAR
      airspeed ……**below 132KIAS**
      gear relay circuit breaker……**RESET**
      gear switch……**DOWN**
      If gear will not extend electrically – refer to LANDING GEAR FAILURE PROCEDURE

ALTERNATOR OUTPUT LOW

Voltage warning light flashing, ammeter showing discharge.

1. NON-ESSENTIAL ELECTRICAL EQUIPMENT…**OFF**
2. LAND, WHEN PRACTICAL, TO CORRECT

NOTE – INTENTIONAL SPINS PROHIBITED