

## ENGINE START

*FOR FLOODED, HOT START, OR COLD-WEATHER ENGINE STARTING,  
SEE PILOTS OPERATING HANDBOOK*

- |                           |  |
|---------------------------|--|
| 1. Phones                 | OFF  |
| 2. Preflight              | COMPLETED  |
| 3. ATIS                   | RECEIVED   |
| 4. Altimeter              | SET  |
| 5. Seatbelts/Harnesses    | ON   |
| 6. Flaps                  | ZERO   |
| 7. Gear Selector          | DOWN   |
| 8. Electrical Equipment   | ALL OFF  |
| 9. Master Switch          | ON   |
| 10. Fuel                  | ON FULLEST TANK  |
| 11. Propeller Control     | FULL FORWARD   |
| 12. Electric Fuel Pump    | ON   |
| 13. Throttle              | OPEN 1/2 inch  |
| 14. Mixture               | FULL RICH, FUEL FLOW<br>OBSERVED, IDLE CUTOFF,<br>ELECTRIC FUEL PUMP OFF |
| 15. Anti-Collision Lights | ON   |
| 16. Brake                 | SET AND TEST   |
| 17. Propeller Area        | CLEAR  |
| 18. Magnetos              | ON BOTH  |
| 19. Starter               | ENGAGE   |

*WHEN ENGINE FIRES, INCREASE MIXTURE CONTROL TO RICH*

- |                        |                  |
|------------------------|------------------|
| 20. RPM                | 1000 RPM         |
| 21. Oil Pressure       | WITHIN LIMITS    |
| 22. Engine Instruments | WITHIN LIMITS    |
| 23. Mixture            | LEAN IF REQUIRED |
| 24. Avionics           | ON               |
| 25. Transponder        | ALT              |
| 26. Brakes             | TEST             |

## TAXI CHECK

- |                       |         |
|-----------------------|---------|
| 1. Turn Coordinator   | TURNING |
| 2. Directional Gyro   | TURNING |
| 3. Attitude Indicator | STABLE  |
| 4. Compass            | TURNING |

## RUN UP

- |                       |   |
|-----------------------|---|
| 1. Brakes             | SET   |
| 2. RPM                | 2000  |
| 3. Magnetos           | CHECK LEFT, RIGHT, BOTH<br>WITHIN LIMITS (175/50) |
| 4. Alternate Air      | OFF-ON-OFF  |
| 5. Propeller Control  | CYCLE   |
| 6. Engine Instruments | WITHIN LIMITS                                     |
| 7. Ammeter            | CHARGING  |
| 7. Circuit Breakers   | IN  |
| 8. Suction            | 5.0 INCHES  |
| 9. Annunciator        | PRESS TO TEST                                     |
| 10. Gear Lights       | CHECK   |
| 11. Throttle          | IDLE then 1000 RPM                                |

## BEFORE TAKEOFF

- |                       |                 |
|-----------------------|-----------------|
| 1. Controls           | FREE & CORRECT  |
| 2. Flight instruments | CHECK           |
| 3. Fuel               | ON FULLEST TANK |
| 4. Electric Fuel Pump | ON              |
| 5. Mixture            | RICH            |
| 6. Alternate Air      | OFF             |
| 7. Fuel Timer         | SET             |
| 8. Propeller Control  | FULL FORWARD    |
| 9. Flaps              | SET FOR TAKEOFF |
| 10. Trim              | SET FOR TAKEOFF |
| 10. Doors and Windows | CLOSED/LATCHED  |
| 11. Radios (COMM/NAV) | SET-UP          |
| 12. Takeoff Briefing  | COMPLETED       |

### AFTER TAKEOFF

1. Gear UP
2. Manifold Pressure 25"
3. RPM 2500 RPM
5. Engine Instruments CHECK

### CLIMB

1. Electric Fuel Pump OFF, CHECK PRESSURE
2. Engine Instruments WITHIN LIMITS
3. Gear CHECK UP
4. Flaps ZERO

### CRUISE

1. Switch Tanks EVERY 30 MINUTES
2. Engine Instruments WITHIN LIMITS
3. Manifold Pressure SET AS REQUIRED
4. RPM SET AS REQUIRED
5. Mixture SET AS REQUIRED
6. Directional Gyro SET AS REQUIRED

### DESCENT

1. Fuel ON FULLEST TANK
2. Power SET AS REQUIRED
3. Mixture ENRICHEN AS REQUIRED

### BEFORE LANDING

1. Fuel ON FULLEST TANK
2. Mixture RICH
3. Electric Fuel Pump ON
4. Gear DOWN/LOCKED (3 GREEN)
5. Flaps WHEN REQUIRED

### FINAL CHECK

1. Wind CHECKED
2. Landing Clearance RECEIVED
3. AIRCRAFT CONFIGURED  
FLAPS/GEAR 3 GREEN
4. PREPARED FOR GO-AROUND  
PROP FULL FORWARD

### OFF RUNWAY

1. Ground Control MONITOR
2. Power 1000 RPM
3. Flaps ZERO
4. Electric Fuel Pump OFF
5. Trim SET TO NEUTRAL
6. Ground Control TAXI CLEARANCE

### ENGINE SHUT-DOWN

1. Engine 1000 RPM
2. Electrical Equipment ALL OFF EXCEPT  
ANTI-COLLISION LIGHTS
3. Mixture IDLE CUTOFF
4. Magnetos OFF
5. Lights OFF
6. Master Switch OFF

### POST FLIGHT

1. Magnetos CHECK OFF
2. Mixture CHECK IDLE CUTOFF
3. Master Switch CHECK OFF
4. AIRCRAFT IN CORRECT SPOT
5. CHOCK NOSEWHEEL AND TIE-DOWN IF NECESSARY
6. NOTE HOBBS AND TACH TIMES
7. REMOVE ALL TRASH AND PERSONAL ITEMS
8. INSTALL WINDOW COVERS
9. LOCK DOOR AND BAGGAGE COMPARTMENT

## EMERGENCY PROCEDURES

### ENGINE FAILURE

**MAINTAIN CONTROL OF AIRCRAFT  
BEST GLIDE SPEED  
SELECT LANDING SITE and GO THERE!**

- |                       |            |
|-----------------------|------------|
| 1. Fuel Tank Selector | SWITCH     |
| 2. Magnetos           | CHECK BOTH |
| 3. Throttle           | OPEN       |
| 4. Mixture            | CHECK RICH |
| 5. Fuel Pump          | ON         |
| 6. Engine Instruments | CHECK      |

***IF ENGINE RESTART IS NOT SUCCESSFUL  
PREPARE FOR EMERGENCY / OFF-AIRPORT LANDING***

### EMERGENCY LANDING

**MAINTAIN CONTROL OF AIRCRAFT**

- |                         |                      |
|-------------------------|----------------------|
| 1. Declare Emergency    | 121.5 / 7700         |
| 2. Gear Selector Switch | AS REQUIRED          |
| 3. Seatbelt/Harnesses   | SECURED              |
| 4. Fuel Selector        | OFF                  |
| 5. Mixture              | IDLE CUTOFF          |
| 6. ELT                  | ON                   |
| 7. Flaps                | AS DESIRED           |
| 8. Door                 | UNLATCH IF DITCHING  |
| 9. Master Switch        | OFF BEFORE TOUCHDOWN |

### GOVERNOR FAILURE

**MAINTAIN CONTROL OF AIRCRAFT**

- |                              |                     |
|------------------------------|---------------------|
| 1. Throttle                  | ADJUST AS NECESSARY |
| 2. RPM                       | ADJUST AS NECESSARY |
| 3. LAND AS SOON AS PRACTICAL |                     |

### LANDING GEAR EXTENSION FAILURE CHECKLIST

- |                         |                   |
|-------------------------|-------------------|
| 1. Master Switch        | CHECK ON          |
| 2. Circuit Breakers     | CHECK             |
| 3. Panel Lights         | OFF (IN DAY TIME) |
| 4. Gear Indicator Bulbs | CHECK             |

**IF GEAR DOES NOT CHECK DOWN AND LOCKED**

### EMERGENCY LANDING GEAR EXTENSION

- |                                   |                     |
|-----------------------------------|---------------------|
| 1. Airspeed                       | REDUCE BELOW 100MPH |
| 2. Landing Gear Selector          | DOWN POSITION       |
| 3. Emergency Gear Lever           | PUSH DOWN AND HOLD  |
| 4. YAW AIRPLANE TO LOCK GEAR DOWN |                     |
| 5. CHECK GEAR SAFE                |                     |

### FIRE

**CHECK SOURCE OF FIRE**

#### ELECTRICAL FIRE

- |                              |      |
|------------------------------|------|
| 1. Master Switch             | OFF  |
| 2. Vents                     | OPEN |
| 3. Cabin Heat                | OFF  |
| 4. LAND AS SOON AS PRACTICAL |      |

#### ENGINE FIRE (IN FLIGHT)

- |   |             |
|---|-------------|
| 1. Fuel Selector                          | OFF         |
| 2. Throttle                               | CLOSE       |
| 3. Mixture                                | IDLE CUTOFF |
| 4. Heater                                 | OFF         |
| 5. YAW AIRCRAFT TO KEEP FLAMES FROM CABIN |             |
| 6. LAND AS SOON AS POSSIBLE               |             |

#### ENGINE FIRE ON THE GROUND

**(If engine has not started)**

- |                      |                   |
|----------------------|-------------------|
| 1. Mixture           | IDLE CUTOFF       |
| 2. Throttle          | OPEN              |
| 3. Starter           | CONTINUE CRANKING |
| 4. EVACUATE AIRCRAFT |                   |

**(if engine has started)**

- |  |             |
|--|-------------|
| 1. CONTINUE RUNNING TO PULL FIRE INTO ENGINE |             |
| 2. Fuel Selector                             | OFF         |
| 2. Mixture                                   | IDLE CUTOFF |
| 3. EVACUATE AIRCRAFT                         |             |
| 4. USE FIRE EXTINGUISHER IF ABLE             |             |

## PREFLIGHT INSPECTION

General condition of aircraft should be checked entirely, including but not limited to damage, rivets, screws, bolts, pins etc.

### CABIN

- |                  |                    |
|------------------|--------------------|
| 1. Control lock  | OFF                |
| 2. Master switch | ON                 |
| 3. Fuel Gauges   | CHECKED FUNCTIONAL |
| 4. Master switch | OFF                |
| 5. Magnetos      | OFF                |

### CONTROL SURFACES

1. CHECK FOR EXTERNAL DAMAGE AND OPERATIONAL INTERFERENCE OF CONTROL SURFACE HINGES
2. ENSURE WINGS AND CONTROL SURFACES ARE FREE OF SNOW, ICE, OR FROST

### WINGS

1. VISUALLY CHECK FUEL SUPPLY, SECURE FILLER CAPS
2. DRAIN FUEL SUMPS
3. CHECK FUEL SYSTEM VENTS ARE UNOBSTRUCTED
4. ON LEFT WING CHECK PITOT TUBE IS CLEAR OF OBSTRUCTIONS

### MAIN LANDING GEAR

1. CHECK MAIN GEAR STRUTS FOR PROPER INFLATION (APPROX. 4.5" SHOWING)
2. CHECK TIRES FOR CUTS, WEAR, AND PROPER INFLATION
3. CHECK BRAKE PADS AND ROTORS FOR EXCESSIVE WEAR OR DAMAGE

### NOSE SECTION

1. INSPECT WINDSHIELD FOR CLEANLINESS
2. CHECK PROPELLER AND SPINNER FOR DEFECTS
3. CHECK FOR FUEL/OIL LEAKS
4. DRAIN GASCOLATOR SUMP ON LEFT SIDE OF NOSE
5. CHECK OIL LEVEL (IF BELOW 6QTS ADD 1QT)
6. CHECK DIPSTICK SECURELY SEATED (DO NOT OVERTIGHTEN)
7. CHECK COWLING AND INSPECTION HATCHES FOR SECURITY
8. CHECK NOSEWHEEL TIRE FOR CUTS, WEAR, AND PROPER INFLATION
9. CHECK NOSE GEAR STRUT FOR PROPER INFLATION (APPROX. 4.5" SHOWING)
10. CHECK FOR F.O.D IN AIR INLETS

### FUSELAGE

1. STOW TOWBAR IF USED
2. CHECK BAGGAGE FOR PROPER STORAGE AND SECURITY
3. CLOSE AND SECURE BAGGAGE COMPARTMENT DOOR

### INSIDE AIRPLANE

1. ENSURE ALL FLIGHT CONTROLS ARE FREE
2. CLOSE AND SECURE CABIN DOOR
3. CHECK REQUIRED PAPERS ARE ON BOARD
4. COMMENCE ENGINE START CHECKLIST