

Ground Checklists and Information

N73146

| Preflight | |
|---|-----------------|
| Fluids | |
| Magnetos | OFF |
| Fuel quantity | CHECK VISUALLY |
| Fuel sumps | DRAIN |
| Left wing, right wing, fuel strainer. Inspect for contamination. | |
| Fuel filler caps | SECURE |
| Engine oil level | CHECK |
| Minimum 6 quarts | |
| Cabin | |
| Pitot cover | REMOVE |
| POH | VERIFY PRESENT |
| Master | ON |
| Flaps | EXTEND |
| Fuel gauges | CHECK QUANTITY |
| Lights | CHECK |
| Tach time | RECORD |
| Pitot heat | TEST |
| Master | OFF |
| Fire extinguisher | SECURE |
| Control lock | REMOVE |
| Empennage | |
| Rudder gust lock | REMOVE |
| Control surfaces | CHECK |
| Freedom of movement and security | |
| Right | |
| Main wheel tire | CHECK INFLATION |
| Aileron | CHECK |
| Freedom of movement and security | |
| Nose | |
| Propeller, spinner | CHECK |
| For nicks and security | |
| Landing light | CHECK CLEAR |
| Air filter | CHECK CLEAR |
| Nosewheel & strut | CHECK INFLATED |
| Static source | CHECK CLEAR |
| Left | |
| Main wheel tire | CHECK INFLATION |
| Fuel tank vent | CHECK CLEAR |
| Pitot tube | CHECK CLEAR |
| Stall warning | TEST |
| Aileron | CHECK |
| Freedom of movement and security | |
| Final | |
| FlightCircle | DISPATCH |
| Baggage door | LOCK |
| Chocks | REMOVE |
| Tie-downs | REMOVE |

| Securing | |
|-------------------|----------|
| Control lock | INSTALL |
| Tie-downs, chocks | APPLY |
| Vents, windows | CLOSE |
| Pitot cover | APPLY |
| Tach, Hobbs times | RECORD |
| FlightCircle | CHECK IN |
| Doors | LOCK |

Operating Checklists

N73146

| Start | |
|--|---------------|
| Before Start | |
| Preflight inspection | COMPLETE |
| Passenger briefing | COMPLETE |
| Brakes | TEST and SET |
| Seats, belts, harnesses | SECURE |
| Fuel valve | BOTH |
| Radios, electrical equipment | OFF |
| Circuit breakers | CHECK IN |
| Beacon switch | ON |
| Engine Start | |
| Mixture | RICH |
| Carburetor heat | COLD |
| Prime | AS REQUIRED |
| Throttle | OPEN 1/8 INCH |
| Master | ON |
| Propeller area | CLEAR |
| Ignition switch | START |
| Release when engine starts | |
| Oil pressure | CHECK |
| If no pressure in 30 seconds, shutdown | |
| Mixture | GROUND LEAN |
| Before Taxi | |
| Avionics | ON |
| Headset | ON |
| Flaps | RETRACT |
| Weather | OBTAIN |
| Altimeter | SET |
| EFB Setup | AS DESIRED |
| Navigation, landing lights | ON |

| Run-up | |
|------------------------------------|------------------|
| Instruments | CHECK and SET |
| VOR Check | IF NEEDED |
| Brakes | SET |
| Doors and windows | CLOSED, LOCKED |
| Flight controls | FREE and CORRECT |
| Fuel valve | BOTH |
| Mixture | RICH |
| Below 3000 feet | |
| Throttle | 1700 RPM |
| Magnetos | CHECK |
| Max drop 125 RPM, max diff. 50 RPM | |
| Engine gauges, ammeter | CHECK |
| Vacuum gauge | CHECK |
| Carburetor heat | TEST |
| Idle | TEST |
| Mixture | GROUND LEAN |
| Throttle friction | ADJUST |

| Before Takeoff | |
|------------------------------------|-------------|
| Radios | SET |
| Instruments | SET |
| Takeoff briefing | COMPLETE |
| Beacon, navigation, landing lights | ON |
| Carburetor heat | AS REQUIRED |
| Flaps | 0-10° |
| Trim | TAKEOFF |
| Fuel valve | BOTH |
| Fuel quantity | CHECK |
| Mixture | RICH |
| Below 3000 feet | |

| Climb | |
|--------------------------|------------|
| Airspeed | 70-90 KIAS |
| Throttle | FULL |
| Mixture | RICH |
| May lean above 3000 feet | |

| Cruise | |
|------------------|---------------|
| Power | 2200-2700 RPM |
| No more than 75% | |
| Trim | ADJUST |
| Mixture | LEAN |

| Descent | |
|-----------------------------|-------------|
| Mixture | RICH |
| Power | AS DESIRED |
| Carburetor heat | AS REQUIRED |
| To prevent carburetor icing | |

| Before Landing | |
|---|-------------------------|
| Fuel valve | BOTH |
| Mixture | RICH |
| Carburetor heat | ON |
| Apply full heat before closing throttle | |
| Airspeed | 60-70 KIAS (flaps UP) |
| Flaps | AS DESIRED |
| Airspeed | 55-65 KIAS (flaps DOWN) |

| Balked Landing | |
|-----------------|----------------|
| Throttle | FULL |
| Carburetor heat | COLD |
| Flaps | 20° |
| Airspeed | 55 KIAS |
| Flaps | RETRACT slowly |

| After Landing | |
|-----------------|-------------|
| Flaps | UP |
| Carburetor heat | OFF |
| Mixture | GROUND LEAN |

| Shutdown | |
|------------------------------|---------|
| Brakes | SET |
| Tach time | RECORD |
| Radios, electrical equipment | OFF |
| Mixture | CUT-OFF |
| Magnetos | OFF |
| Master | OFF |

Emergency Checklists

| Engine Failure During Takeoff Run | |
|-----------------------------------|---------|
| Throttle | IDLE |
| Brakes | APPLY |
| Flaps | RETRACT |
| Mixture | CUT-OFF |
| Magnetos | OFF |

| Engine Failure Shortly After Takeoff | |
|--------------------------------------|--|
| Airspeed | Flaps up: 65 KIAS Flaps down: 60 KIAS |
| Mixture | CUT-OFF |
| Fuel valve | OFF |
| Magnetos | OFF |
| Flaps | AS REQUIRED |
| Master | OFF |

| Engine Failure During Flight | |
|------------------------------|------------------------------|
| Airspeed | 65 KIAS |
| Carburetor heat | ON |
| Fuel valve | BOTH |
| Mixture | RICH |
| Magnetos | BOTH (START if prop stopped) |
| Primer | IN and LOCKED |

| Forced Landing With Engine Failure | |
|------------------------------------|--|
| Airspeed | Flaps up: 65 KIAS Flaps down: 60 KIAS |
| Mixture | CUT-OFF |
| Fuel valve | OFF |
| Magnetos | OFF |
| Flaps | AS REQUIRED 40° recommended |
| Master | OFF |
| Doors | UNLATCH BEFORE TOUCHDOWN |
| Touchdown | SLIGHTLY TAIL LOW |
| Brakes | APPLY HEAVILY |

| Precautionary Landing | |
|-----------------------------|--|
| Flaps | 20° |
| Airspeed | 60 KIAS |
| Selected field | FLY OVER Note terrain/obstructions. Retract flaps upon reaching a safe altitude and airspeed. |
| Radios, electrical switches | OFF |
| Flaps | 40° (on final approach) |
| Airspeed | 60 KIAS |
| Master | OFF |
| Doors | UNLATCH BEFORE TOUCHDOWN |
| Touchdown | SLIGHTLY TAIL LOW |
| Magnetos | OFF |
| Brakes | APPLY HEAVILY |

| Ditching | |
|---------------------------|--|
| Radio | MAYDAY on 121.5 MHz Give location, intentions |
| Heavy objects | SECURE or JETTISON |
| Flaps | 20°-40° |
| Power | 300 FT/MIN DESCENT AT 55 KIAS If no power available, approach flaps up 65 KIAS or flaps 10° 60 KIAS |
| Strong wind, heavy seas: | LAND INTO WIND |
| Light wind, heavy swells: | LAND PARALLEL TO SWELLS |
| Doors | UNLATCH |
| Touchdown | LEVEL ATTITUDE at established rate of descent |
| Face | CUSHION at touchdown with coat |
| Airplane | EVACUATE |
| Life vests/raft | INFLATE |

| Engine Fire During Start On Ground | |
|---|---|
| Cranking | CONTINUE |
| If engine starts: | |
| Power | 1700 RPM for a few minutes |
| Engine | SHUTDOWN |
| If engine fails to start: | |
| Throttle | FULL OPEN |
| Mixture | CUT-OFF |
| Cranking | CONTINUE for 2-3 minutes |
| Fire extinguisher | OBTAIN |
| Master | OFF |
| Magnetos | OFF |
| Fuel valve | OFF |
| Fire | EXTINGUISH Use fire extinguisher, seat cushion, wool blanket, or dirt. If practical, try to remove air filter if it is ablaze. |
| Both cases: inspect and repair damage before conducting another flight. | |

| Engine Fire in Flight | |
|---|--------------------------------|
| Mixture | CUT-OFF |
| Fuel valve | OFF |
| Master | OFF |
| Cabin heat & air | OFF (except overhead vents) |
| Airspeed | 100 KIAS |
| If fire is not extinguished, increase glide speed to find an airspeed which will provide an incombustible mixture | |
| Forced Landing With Engine | EXECUTE |
| Failure checklist | |

Emergency Checklists

| Electrical Fire in Flight | |
|---|---|
| Master | OFF |
| All other switches (except magnetos) | OFF |
| Vents/cabin air/heat | CLOSE |
| Fire extinguisher | USE |
| If fire appears out and electrical power is necessary to continue flight: | |
| Master | ON |
| Circuit breakers | CHECK (do not reset faulty circuit) |
| Radio/electrical switches | ON |
| One at a time with delay after each until short circuit is localized | |
| Vents/cabin air/heat | OPEN (when fire completely extinguished) |

| Cabin Fire | |
|--|-----------------------------|
| Master | OFF |
| Vents/cabin air/heat | CLOSED (to avoid drafts) |
| Fire extinguisher | USE |
| WARNING: After discharging extinguisher within a closed cabin, ventilate cabin | |
| Land ASAP, inspect for damage | |

| Wing Fire | |
|---|-----|
| Nav lights | OFF |
| Pitot heat | OFF |
| NOTE: Sideslip to keep flames away from fuel tanks and cabin. Land ASAP using flaps only as required. | |

| Inadvertent Icing Encounter | |
|--|---|
| Pitot heat | ON |
| Turn back or change altitude to obtain an OAT less conducive to icing. | |
| Cabin heat | FULL ON |
| Defroster | OPEN |
| Cabin air | ADJUST Maximize defroster heat and airflow |
| Throttle | OPEN |
| Carburetor/air filter icing | MONITOR Apply carb heat as required, lean mixture for maximum RPM if used continuously |
| Land | NEAREST AIRPORT With very rapid ice build-up, select suitable off-airport landing site |
| With ≥ 1/4 inch ice on the leading edges, prepare for significantly higher stall speed | |
| Flaps | LEAVE RETRACTED |
| Open left window and scrape ice from windshield, if necessary for visibility | |
| Forward slip if necessary for visibility | |
| Approach speed | 65-75 KIAS Depending on level of accumulation |
| Landing | Perform in level attitude |

| Static Source Blockage | |
|-------------------------------|--|
| Alternate static source valve | PULL ON |
| Airspeed | Use calibration table in POH section 5 |

| Landing With a Flat Main Tire | |
|-------------------------------|--|
| Approach | NORMAL |
| Touchdown | GOOD TIRE FIRST Hold airplane off flat tire as long as possible |

| Over-Voltage Light Illuminates | |
|--|------------------|
| Master | OFF (both sides) |
| Master | ON |
| If over-voltage light illuminates again: | |
| Flight | TERMINATE ASAP |

| Ammeter Shows Discharge | |
|-----------------------------------|-----------------------------------|
| Alternator | OFF |
| Nonessential electrical equipment | OFF |
| Flight | TERMINATE as soon as practical |