

**FREQUENCIES**

**BED**  
**ATIS** .....124.6  
**GROUND** .....121.7  
**TOWER** .....118.5  
**BOS APP** .....124.4  
**Signature** .....130.8  
 ..... Or **781-274-0010**

**OWD**  
**ATIS** .....119.95  
**GROUND** .....121.8  
**TOWER** .....126.0  
**BOS APP** .....124.1

**ASH**  
**ATIS** .....125.1  
**GROUND** .....121.8  
**TOWER** .....133.2  
**BOS APP** .....124.9

**Practice area-ALL** .....123.5

**Emergency (guard)** .....121.5

**PREFLIGHT**

**COCKPIT SAFETY CHECK**

**Magnetos** ..... **OFF, KEY OUT**  
**Mixture** ..... **CUTOFF**  
**Throttle** ..... **CLOSED**  
**Hobbs** ..... RECORD  
**Documents (AROW) and G-1000**  
 reference guide ..... ON-BOARD  
**Flight control lock** ..... REMOVE  
**Parking brake** ..... AS REQUIRED  
**Avionics 1 & 2** ..... OFF  
**Electrical switches** ..... OFF  
**Master switches** ..... ON  
**Fuel gauges** ..... CHECK  
**Low fuel annunciators** ..... ABSENT  
**Oil pressure annunciator** ..... SHOWN  
**Low vacuum annunciator** ..... SHOWN  
**Low volts annunciator** ..... SHOWN  
**Tach (System Page)** ..... RECORD  
**Avionics 1** ..... ON, CHECK FAN, OFF  
**Avionics 2** ..... ON, CHECK FAN, OFF  
**Altimeters set to field elevation PFD,**  
**Autopilot & standby altimeter** ..... SET  
**Pitot heat IF IMC** ..... ON, CHECK, OFF  
**Exterior lights** ..... ON, CHECK, OFF  
**Stall warning** ..... CHECK  
**Flaps** ..... EXTEND  
**Master switches** ..... OFF  
**Magnetic compass** ..... CHECK  
**Fuel selector** ..... BOTH  
**Cowl flaps** ..... OPEN  
**Alternate static** ..... OFF  
**Fire extinguisher** ..... CHECK  
**Windows** ..... CHECK

**EMPENNAGE**

General condition ..... CHECK  
 Baggage door ..... Unlocked & LATCHED  
 Tail tie down/Lock ..... REMOVE  
 Elevator ..... CHECK & CLEAR  
 Trim tab ..... CHECK & CLEAR  
 Rudder ..... CHECK & CLEAR  
 Antennas ..... CHECK

**RIGHT WING**

General condition ..... CHECK & CLEAR  
 Flap ..... CHECK  
 Aileron & Weights ..... CHECK  
 Wingtip ..... CHECK  
 Tie down/chock ..... REMOVE  
 Fuel tank vent ..... CHECK  
 Main gear & Brake ..... CHECK  
 Fairing ..... Check Security & Condition  
 Fuel tank sumps (5). DRAIN & NO DRIPS  
 Fuel tank ..... CHECK  
 Fuel cap & Vent ..... CHECK  
 Fresh air inlet ..... CHECK

**NOSE**

General condition & leaks ..... CHECK  
 Right static port ..... CHECK  
 Fuel drains(3) ..... DRAIN & NO DRIPS  
 Oil (max 7, min 6) ..... CHECK  
 Propeller & spinner ..... CHECK  
 Alternator belt ..... CHECK  
 Air inlets ..... CHECK  
 Air filter ..... CHECK  
 Nose gear ..... CHECK  
 Fairing ..... Check Security & Condition  
 Chock ..... REMOVE  
 Left static port ..... CHECK  
 Cowl Flaps & Exhaust ..... CHECK

**LEFT WING**

General condition ..... CHECK & CLEAR  
 Fresh air inlet ..... CHECK  
 Pitot ..... CHECK  
 Tie down/chock ..... REMOVE  
 Fuel tank vent ..... CHECK  
 Fuel tank sumps (5). DRAIN & NO DRIPS  
 Fuel tank ..... CHECK  
 Fuel cap & Vent ..... CHECK  
 Wingtip ..... CHECK  
 Aileron & Weights ..... CHECK  
 Flap ..... CHECK  
 Main gear & Brake ..... CHECK  
 Fairing ..... Check Security & Condition

**BEFORE ENGINE START**

Tail Lock ..... IN COCKPIT  
 Passenger briefing ..... COMPLETE  
 Seats & seat belts ..... SECURE  
 Circuit breakers ..... CHECK  
 Electrical switches ..... OFF  
 Avionics 1 & 2 ..... OFF  
 Fuel selector ..... BOTH  
 Cowl Flaps ..... OPEN  
 Brakes ..... SET & HOLD

**ENGINE START**

Flaps ..... UP  
 Mixture ..... CUTOFF  
 Propeller ..... MAX RPM  
 Throttle ..... 1/4" OPEN  
 Standby batt ..... TEST 20 SECS, ARM  
 Engine indicators ..... CHECK NO X's  
 E BUS volts ..... MIN 24v  
 M BUS volts ..... MAX 1.5v  
 Batt S amps ..... DISCHARGE  
 Standby batt annunciator ..... SHOWN  
 Master switches ..... ON  
 Beacon ..... ON  
 Prime if COLD:  
 - Fuel pump ..... ON  
 - Mixture ..... RICH 3-5 SECS, CUTOFF  
 - Fuel pump ..... OFF  
 Propeller area ..... CLEAR  
 Starter ..... ENGAGE  
 Mixture ..... RICH  
 Throttle .. 800 RPM (No Higher Than 1000)  
 Oil pressure ..... CHECK  
 M & S BATT ..... POSITIVE  
 Low volts annunciator ..... ABSENT  
 Mixture ..... LEAN

**BEFORE TAXI**

Avionics 1 & 2 ..... ON  
 Flaps ..... RETRACT  
 Fuel quantity ..... SET  
 Transponder (1200 VFR) ..... SET  
 Radios ..... SET  
 ATIS ..... CHECK  
 Flight instruments ..... SET  
 Autopilot ..... CHECK  
 Lights ..... AS APPROPRIATE  
 Navigation & Transponder ..... SET  
 Radio ..... CLNC,GROUND/CTAF

**TAXI**

Parking Brake ..... RELEASE  
 Brakes ..... CHECK  
 Flight instruments ..... CHECK

**ENGINE RUNUP**

Brakes ..... SET & HOLD  
 Fuel selector ..... BOTH  
 Mixture (below 5000') ..... RICH  
 Oil Temp ..... IN THE  
 GREEN Throttle ..... 1800 RPM  
 Mags (drop 175, diff 50) ..... CHECK  
 Propeller ..... CYCLE  
 Vacuum ..... CHECK  
 Engine indicators ..... CHECK  
 Ammeters & voltmeters ..... CHECK  
 Annunciators ..... ABSENT  
 Throttle ..... IDLE  
 Throttle ..... 1000 RPM

**BEFORE TAKEOFF**

Pitot heat ..... AS REQUIRED  
 Flight instruments..... CHECK  
 Electric trim ..... CHECK  
 Flight controls ..... CHECK  
 Autopilot ..... OFF  
 Cabin power..... OFF  
 Trims Elevator & Rudder.....TAKEOFF  
 Flaps.... Normal 0°-10°, Short/Soft 20°  
 Seats & seat belts..... SECURE  
 Doors & windows..... SECURE  
 Lights..... ON  
 Takeoff briefing ..... COMPLETE  
 Radio ..... TOWER/CTAF  
 #2 Radio..... MONITOR 121.5

**TAKEOFF**

Mixture (below 5000') .....RICH  
 Throttle ..... FULL  
 Power RPM (2350-2400 RPM=Static) . CHECK  
 Engine gauges..... CHECK  
 Airspeed ..... CHECK  
 Rotate ..... 55 KIAS

**CLIMB**

Flaps.....retract slowly >70KIAS  
 Airspeed (cruise climb)..... 85-95  
 KIAS/500'/MIN  
 Manifold pressure ..... 23" OR FULL  
 Mixture..... 15 GPH OR FULL  
 Cowl flaps..... AS REQUIRED

**CRUISE**

Power ..... AS REQUIRED  
 Mixture..... LEAN AS REQUIRED  
 Cowl flaps **Check Temps.** AS REQUIRED

**DESCENT**

Power ..... AS REQUIRED  
 Mixture..... AS REQUIRED  
 Cowl flaps..... AS REQUIRED  
 Altimeters. ....SET  
 Seats & seat belts..UPRIGHT & SECURE

**APPROACH & LANDING**

Downwind.....90 KTS  
 Cabin power..... OFF  
 Fuel selector ..... BOTH  
 Mixture (below 5000') .....RICH  
 Flaps..... AS REQUIRED  
 Landing (0°) ..... 70-80 KIAS  
 Landing (30°) ..... 60-70 KIAS

**AFTER LANDING**

Radio .....GROUND/CTAF  
 RPM ..... 1000  
 Cowl flaps..... OPEN  
 Flaps.....RETRACT  
 Mixture..... LEAN  
 Lights.....AS REQUIRED  
 Pitot Heat.....OFF

**SHUTDOWN**

Call for fuel..... AS REQUIRED  
 Avionics 1 & 2 ..... OFF  
 Throttle..... IDLE  
 Mixture .....CUTOFF

**WHEN PROP STOPS**

Magnetos ..... OFF, KEY OUT  
 Electrical switches ..... OFF  
 Master switches..... OFF  
 Hobbs & tach ..... RECORD  
 Standby batt..... OFF  
 Flight control lock ..... INSTALL  
 Cowl flaps..... OPEN  
 Fuel selector ..... LEFT or RIGHT  
 Tie downs..... SECURE

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**SPEEDS**

Vg (0°) ..... 76 KIAS  
 .... glide distance approx 1 NM per 680'  
 Va (3100/2100 lbs) ..... 110/91 KIAS  
 Vfe (10°/20°/30°) .. 140/120/100 KIAS  
 Vy (0°, sea level-10K') .....80-74 KIAS  
 Vx (0°, sea level-10K') .....65-68 KIAS  
 Vx (20°)..... 58 KIAS  
 Vs0 ..... 41 KIAS  
 Vs1 ..... 51 KIAS

**SPECS**

Usable fuel tabs/full ..... 64g/87g  
 Taxi fuel ..... 1.7g  
 Climb fuel .....18.0 GPH  
 Crosswind..... 15 KTS  
 Maneuvers..... 2400 RPM/14"/90 KTS  
 Cruise:  
 3000'@80%.....2400 RPM/24"/140 KTS  
 Cruise GPH@80% (leaned) ..... 13.8

**EMERGENCIES NOTE:** NOT ALL EPs are here. **Check POH for additional procedures**

**ENGINE FIRE DURING START**

**Starter**..... CONTINUE CRANKING  
**Mixture**.....CUTOFF  
**Throttle** ..... OPEN  
**Fuel selector**..... OFF  
**Fuel pump** ..... OFF  
**Magnetos**..... OFF  
**Standby batt**..... OFF  
**Master switches** ..... OFF  
**Fire Extinguisher** .....ACTIVATE

**ENGINE POWER LOSS**

Airspeed..... 76 KIAS  
 Fuel selector ..... BOTH  
 Fuel pump .....ON  
 Mixture ..... RICH  
 Magnetos ..... BOTH  
 Engine gauges ..... CHECK  
 Fuel pump ..... OFF

**POWER OFF LANDING**

Airspeed (0°/>0°) ..... 75/70 KIAS  
 Landing area..... IDENTIFY  
 Radio ..... MAYDAY  
 Transponder ..... 7700  
 Final approach (30°)..... 70 KIAS  
 Mixture ..... CUTOFF  
 Fuel selector ..... OFF  
 Magnetos ..... OFF  
 Standby batt..... OFF  
 Master switches ..... OFF  
 Seat belts.....SECURE  
 Doors.....UNLATCH

**ENGINE FIRE IN FLIGHT**

Mixture ..... CUTOFF  
 Fuel selector ..... OFF  
 Fuel pump ..... OFF  
 Throttle..... CLOSED  
 Master switches ..... OFF  
 Cabin heat & air ..... OFF  
 Speed ..... INCREASE TO EXTINGUISH  
 Land ..... IMMEDIATELY

**ELECTRICAL FIRE**

Standby batt..... OFF  
 Master switches ..... OFF  
 Vents, cabin heat & air..... CLOSED  
 Fire extinguisher ..... AS NECESSARY  
 Avionics 1 & 2 ..... OFF  
 Electrical switches ..... OFF  
 Vents (when fire extinguished).... OPEN  
 Land ..... AS SOON AS PRACTICAL

**LANDING W/O ELEVATOR CONTROL**

Trim.....80 KIAS  
 Flaps.....20°  
 Power....USE ONLY POWER TO CLIMB/DESCEND