

**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, KEYS OUT**  
**Mixture** ..... CUTOFF  
**Throttle** ..... CLOSED

Hobbs & Tach ..... RECORD  
 Documents (AROW) ..... CHECK  
 Flight controls ..... RELEASE

**Emergency Gear**

**Lever..UP-CONFIRMED**

**Gear selector**..... **DOWN**

Trims X 2 ..... TAKEOFF  
 Parking brake ..... AS REQUIRED  
 Avionics/Radio master ..... OFF  
 Electric switches ..... OFF  
 Beacon ..... ON  
 Master switch ..... ON

**Gear lights** ..... **3 GREEN**

Fuel gauges ..... CHECK  
 Annunciator panel ..... TEST  
 Aux vacuum pump if night or IMC. CHECK  
 Pitot heat if IMC ..... ON, CHECK, OFF  
 Exterior lights as appropriate for vis conditions ..... ON, CHECK, OFF  
 Stall horn ..... CHECK  
 Master switch ..... OFF  
 Altimeter ..... FIELD ELEVATION  
 Magnetic compass ..... CHECK  
 Pitot & static drains ..... DRAIN  
 Flight controls ..... CHECK  
 Flaps ..... EXTEND  
 Fire extinguisher ..... CHECK  
 Windows Clean ..... CHECK

**RIGHT WING**

Flap ..... CHECK  
 Aileron ..... CHECK  
 Wingtip top & bottom ..... CHECK  
 Tie down/chock ..... REMOVE  
 Fuel tank vent ..... CHECK  
 Fuel tank sump ..... DRAIN  
 Fuel tank quantity ..... CHECK  
 Fuel cap & vent ..... CHECK  
 Main gear ..... CHECK  
 Fresh air inlet ..... CHECK

**NOSE**

Cowling ..... CHECK  
 Oil (max 6, min 5.5) ..... CHECK  
 Propeller & spinner ..... CHECK  
 Alternator belt ..... CHECK  
 Air inlets ..... CHECK  
 Nose gear ..... CHECK  
 Chock ..... REMOVE  
 Fuel strainer ..... DRAIN & NO DRIPS

**LEFT WING**

Fresh air inlet ..... CHECK  
 Main gear ..... CHECK  
 Fuel tank vent ..... CHECK  
 Fuel tank quantity ..... DRAIN  
 Fuel tank sump ..... DRAIN & NO DRIPS  
 Fuel cap & vent ..... CHECK  
 Tie down/chock ..... REMOVE  
 Pitot Tube ..... CHECK  
 Wingtip ..... CHECK  
 Aileron ..... CHECK  
 Flap ..... CHECK

**LEFT FUSELAGE**

Static port ..... CHECK  
 Antennas ..... CHECK  
 Fresh air inlet ..... CHECK

**EMPENNAGE**

Stabilator ..... CHECK & CLEAR  
 Trim tab ..... CHECK & CLEAR  
 Rudder ..... CHECK & CLEAR  
 Antennas ..... CHECK  
 Tie down ..... REMOVE

**RIGHT FUSELAGE**

Static port ..... CHECK  
 Antennas ..... CHECK  
 Baggage area ..... SECURE  
 Baggage door ..... Unlocked & LATCHED

**BEFORE ENGINE START**

Tail Lock.... IN BAGGAGE OR COCKPIT  
 Flaps ..... RETRACT  
 Passenger briefing ..... COMPLETE  
 Seats & seat belts ..... SECURE  
 Fuel selector .. LOWEST TANK or EITHER TANK  
 Circuit breakers ..... CHECK  
 Alternate air ..... OFF  
 Strobes ..... ON  
 Propeller ..... MAX RPM  
 Brakes ..... SET & HOLD

**ENGINE START**

Throttle ..... 1/2" OPEN  
 Master & Alt switches ..... ON  
 Fuel pump ..... ON  
 Mixture if cold ..... RICH 3-5 SECS  
 Mixture ..... CUT OFF  
**Propeller area** ..... **CLEAR**  
 Starter ..... ENGAGE  
 Mixture ..... RICH  
 Throttle.. 800 RPM (No Higher Than 1000)  
 Oil pressure ..... CHECK  
 Fuel pump ..... OFF  
 Mixture ..... LEAN

**BEFORE TAXI**

Avionics/Radio master ..... ON  
 Transponder (1200 VFR) ..... ALT  
 Radios ..... SET  
 ATIS ..... CHECK  
 Flight instruments ..... SET  
 Lights ..... AS APPROPRIATE  
 Navigation ..... SET  
 Radio ..... CLNC, GROUND/CTAF  
 #2 Radio ..... MONITOR 121.5

**TAXI**

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

**ENGINE RUNUP**

Brakes ..... SET & HOLD  
 Oil Temp ..... IN THE GREEN  
 Fuel selector ..... OTHER TANK  
 Mixture (below 5000') ..... RICH  
 Throttle ..... 2000 RPM  
 Mags (drop 175, diff 50) ..... CHECK  
 Vacuum (4.8-5.1") ..... CHECK  
 Engine gauges ..... CHECK  
 Ammeter ..... CHARGING LTS & pitot on/off  
 Annunciator panel ..... TEST  
 Alternate air ..... CHECK  
 Propeller (max 500 drop) ..... CYCLE 3x  
 Throttle (min 500 RPM) ..... IDLE  
 Throttle ..... 1000 RPM  
 Flight controls ..... CHECK

**BEFORE TAKEOFF**

Fuel pump ..... ON  
 Propeller ..... MAX RPM  
 Pitot heat ..... AS REQUIRED  
 Flight instruments ..... CHECK  
 Trims X 2 ..... TAKEOFF  
 Flaps .... NORMAL 0°, SHORT/SOFT 25°  
 Seats & seat belts ..... SECURE  
 Door & window ..... SECURE  
 Lights ..... ON  
 Takeoff briefing ..... COMPLETE  
 Air conditioning ..... OFF  
 Radio ..... TOWER/CTAF

**TAKEOFF**

Mixture (below 5000') ..... RICH  
 Throttle ..... FULL  
 Power ..... CHECK  
 Engine gauges ..... CHECK  
 Airspeed ..... CHECK  
 Rotate 0°/25° ..... 71/59 KIAS

**CLIMB**

Gear .....  
 Flaps...RETRACT AT SAFE SPEED (60KIAS)  
 Airspeed (cruise climb).....104KIAS/500FPM  
 Fuel pump ..... OFF  
 Fuel pressure ..... CHECK

**CRUISE**

Power & Propeller ..... AS REQUIRED  
 Mixture..... LEAN AS REQUIRED

**FUEL TANK SWITCH**

Fuel pump ..... ON  
 Fuel selector ..... DESIRED TANK  
 Fuel pressure ..... CHECK  
 Fuel pump ..... OFF

**DESCENT**

Power & Propeller ..... AS REQUIRED  
 Mixture..... AS REQUIRED  
 Seats & seat belts..UPRIGHT & SECURE

**APPROACH & LANDING**

Downwind.....90 KTS  
 Air conditioning ..... OFF  
 Fuel pump ..... ON  
 Fuel selector ..... FULLEST TANK  
 Mixture (below 5000') ..... RICH  
 Propeller ..... MAX RPM  
 Gear (<129 KIAS) ..... DOWN  
 Flaps (<103 KIAS) ..... AS REQUIRED  
 Landing (0°) ..... 78 KIAS  
 Landing (40°) ..... 72 KIAS

**AFTER LANDING**

Radio ..... GROUND/CTAF  
 RPM.....1000  
 Flaps.....RETRACT  
 Fuel pump ..... OFF  
 Mixture..... LEAN  
 Lights.....AS REQUIRED  
 Pitot Heat.....OFF

**SHUTDOWN**

Call for fuel ..... AS REQUIRED  
 Air conditioning ..... OFF  
 Avionics/Radio master ..... OFF  
 Throttle ..... IDLE  
 Mixture.....CUTOFF

**WHEN PROP STOPS**

Magnetos..... OFF, KEY OUT  
 Electrical switches..... OFF  
 Master & Alt switches ..... OFF  
 Hobbs & tach ..... RECORD  
 Trims x 2.....SET FOR TAKEOFF  
 Flight controls ..... SECURE  
 Tie downs ..... SECURE  
 Cover..... ON

**POSTFLIGHT WALK AROUND**

**SPEEDS**

Vg (gear up, 0°, prop low)..... 79 KIAS  
 .... glide distance approx 1 NM per 700'  
 Va (2750/1865 lbs) ..... 118/96 KIAS  
 Vfe .....103 KIAS  
 Vlo (retract, extend) ..... 107,129 KIAS  
 Vle.....129 KIAS  
 Vy (gear down,0°) ..... 78 KIAS  
 Vy (gear up,0°) ..... 90 KIAS  
 Vx (gear down,25°) ..... 62 KIAS  
 Vx (gear down,0°) ..... 72 KIAS  
 Vx (gear up,0°) ..... 78 KIAS  
 Vs0 ..... 55 KIAS  
 Vs1 ..... 60 KIAS

**SPECS**

Usable fuel tabs/full ..... 50g/72g  
 Taxi fuel ..... 1.3g  
 Climb fuel (75% power) .....12.7 GPH  
 Crosswind.....17 KTS  
 Maneuvers.....2500 RPM/20"/100 KTS  
 Cruise 75%.....2500 RPM, 12.7 GPH  
 ..... (leaned)  
 3000' ..... 25.3", 133 KTAS  
 6000' ..... 24.3", 135 KTAS

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

**ENGINE FIRE DURING START**

**Starter** ..... CONTINUE CRANKING  
**Mixture** .....CUTOFF  
**Throttle** ..... OPEN  
**Fuel pump**.....OFF  
**Fuel selector**.....OFF

**MANUAL GEAR EXTENSION**

Master switch..... CHECK ON  
 Alternator switch ..... CHECK ON  
 Circuit breakers..... CHECK  
 Nav light switch (daytime)..... OFF  
 Gear bulbs..... CHECK  
 Airspeed..... BELOW 87 KIAS  
 Gear switch ..... DOWN  
 Emergency gear lever ..... HOLD DOWN  
 Yaw with rudder ..... AS REQUIRED  
 Reduce speed ..... AS REQUIRED  
 Gear switch ..... CYCLE AS REQUIRED

**ENGINE POWER LOSS**

Fuel selector ..... FULLEST TANK  
 Fuel pump ..... ON  
 Mixture ..... RICH  
 Alternate air ..... OPEN  
 Magnetos ..... BOTH  
 Engine gauges ..... CHECK

**POWER OFF LANDING**

Trim for best glide ..... 79 KIAS  
 Propeller ..... MIN RPM  
 Landing area ..... IDENTIFY  
 Radio ..... MAYDAY  
 Transponder ..... 7700  
 Final approach (40°) ..... 72 KIAS  
 Gear ..... AS REQUIRED  
 Magnetos ..... OFF  
 Master switch..... OFF  
 Alternator switch ..... OFF  
 Fuel selector ..... OFF  
 Mixture ..... CUTOFF  
 Seatbelts..... SECURE  
 Door ..... UNLATCH

**ENGINE ROUGHNESS**

Mixture ..... ADJUST TO SMOOTHEST  
 Alternate air ..... OPEN  
 Fuel pump ..... ON  
 Fuel selector ..... SWITCH TANKS  
 Engine gauges ..... CHECK  
 Magnetos ..... CHECK SMOOTHEST  
 Mixture ..... RICH  
 Land ..... AS SOON AS PRACTICAL

**ENGINE FIRE IN FLIGHT**

Fuel selector ..... OFF  
 Throttle..... CLOSED  
 Mixture ..... CUTOFF  
 Fuel pump ..... OFF  
 Heater & defroster ..... OFF  
 Speed ..... INCREASE TO EXTINGUISH  
 Land ..... IMMEDIATELY

**ELECTRICAL (CABIN) FIRE**

Master switch..... OFF  
 Alternator switch ..... OFF  
 Vents ..... OPEN  
 Heater & defroster ..... OFF  
 Fire extinguisher ..... AS NECESSARY  
 Land ..... AS SOON AS PRACTICAL