

**FREQUENCIES**

<b>BED</b>	
<b>ATIS</b>	<b>124.6</b>
<b>GROUND</b>	<b>121.7</b>
<b>TOWER</b>	<b>118.5</b>
<b>BOS APP</b>	<b>124.4</b>
<b>Signature</b>	<b>130.8</b>
	or 781-274-0010

**OWD**

<b>ATIS</b>	<b>119.95</b>
<b>GROUND</b>	<b>121.8</b>
<b>TOWER</b>	<b>126.0</b>
<b>BOS APP</b>	<b>124.1</b>

**ASH**

<b>ATIS</b>	<b>125.1</b>
<b>GROUND</b>	<b>121.8</b>
<b>TOWER</b>	<b>133.2</b>
<b>BOS APP</b>	<b>124.9</b>

<b>Practice area-ALL</b>	<b>123.5</b>
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<b>Emergency (guard)</b>	<b>121.5</b>
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**PREFLIGHT****COCKPIT SAFETY CHECK**

<b>Magneto</b>	<b>OFF, KEY OUT</b>
<b>Mixture</b>	<b>CUTOFF</b>
<b>Throttle</b>	<b>CLOSED</b>

Hobbs & Tach	RECORD
Documents (AROW)	CHECK
Flight controls	RELEASE
Parking brake	AS REQUIRED
Avionics/Radios	OFF
ELT	ARM
Electrical switches	OFF
Master switch	ON
Fuel gauges	CHECK
Alternator Warning Light	ON
Pitot heat (Only if required)	ON, CHECK, OFF
Exterior lights	ON, CHECK, OFF
Stall horn	CHECK
Master switch	OFF
Altimeter	FIELD ELEVATION
Magnetic compass	CHECK
Pitot & static drains	DRAIN
Alternate Static source	NORMAL/OFF
Flight controls	CHECK
Flaps	EXTEND
Fire extinguisher (If installed)	CHECK
Baggage	SECURE
Windows	CHECK

**LEFT FUSELAGE**

General condition	CHECK
Static Port	CHECK
Antennas	CHECK

**EMPENNAGE**

Stabilator & Elevator	CHECK & CLEAR
Rudder	CHECK & CLEAR
Antennas	CHECK
Tie down	REMOVE

**RIGHT FUSELAGE**

General condition	CHECK
Antennas	CHECK

**RIGHT WING**

General condition	CHECK & CLEAR
Flap	CHECK
Aileron	CHECK
Wingtip	CHECK
Inboard & Outboard Flow Strips	CHECK
Tie down/chock	REMOVE
Fuel tank vent	CHECK
Fuel tank sump	DRAIN & NO DRIPS
Fuel tank & quantity	CHECK
Fuel cap & Vent	CHECK
Main gear & Brakes	CHECK

**NOSE**

General condition & leaks	CHECK
Fresh air inlet	CHECK
Right engine compartment	CHECK
Oil (max 5, min 4)	CHECK
RT Cowling Latches X2	SECURE
Propeller & spinner	CHECK
Alternator belt	CHECK
Air inlets	CHECK
Nose gear	CHECK
Chock	REMOVE
Left engine compartment	CHECK
Hydraulic Brake Fluid	CHECK
Fresh air inlet	CHECK
Cleft cowling Latches X2	SECURE
Fuel strainer X 2 (Switch Tanks)	DRAIN & NO DRIPS
Tow Bar or Chocks	REMOVED

**LEFT WING**

General condition	CHECK & CLEAR
Fresh air inlet	CHECK
Main gear & Brakes	CHECK
Fuel tank vent	CHECK
Fuel tank sump	DRAIN & NO DRIPS
Fuel tank & quantity	CHECK
Fuel cap & vent	CHECK
Tie down/chock	REMOVE
Inboard & Outboard Flow Strips	CHECK
Pitot Tube 3 Holes	CHECK
Wingtip	CHECK
Aileron	CHECK
Flap	CHECK

**BEFORE ENGINE START**

Tail Lock	IN COCKPIT
Baggage	SECURE
Flaps	RETRACT
Passenger briefing	COMPLETE
Seats & seat belts	SECURE
Fuel selector ..	LOWEST TANK or EITHER TANK
Circuit breakers	CHECK
Anti Collision Lights	ON

Carb heat ..... OFF  
 Brakes ..... SET & HOLD  
 Doors (Upper & Lower Latches)..... CLOSED & LATCHED

**ENGINE START**

Prime.....2-4 STROKES HOT, 2-5 COLD

**On Last Stroke Leave Primer Out**

Master ..... ON  
 Fuel pump.....ON CK PRESSURE  
 Mixture ..... RICH  
 Throttle..... ¼" COLD, ½" HOT  
 Propeller area ..... CLEAR  
 Starter ..... ENGAGE  
**Primer....ADVANCE SLOWLY AS ENGINE STARTS**

**Primer** ..... **LOCKED**

Throttle.. 800 RPM (No Higher Than 1000)  
 Oil pressure ..... CHECK  
 Fuel pump ..... OFF  
 Mixture ..... LEAN

**BEFORE TAXI**

Avionics ..... ON  
 Radio(s) & Intercom ..... SET  
 Transponder (1200 VFR) ..... ALT  
 ATIS ..... CHECK  
 Flight instruments ..... SET  
 Lights ..... AS APPROPRIATE  
 Navigation & Transponder ..... SET  
 Radio ..... CLNC, GROUND/CTAF

**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..... 1800 RPM  
 Mags (drop 175,diff 50) ..... CHECK  
 Vacuum (5.0±1") ..... CHECK  
 Engine gauges ..... CHECK  
 Load meter... CHARGING LTS & pitot on/off  
 Carb heat (drop/NO RISE) ..... ON  
 Throttle (min 500 RPM) ..... IDLE  
 Carb heat ..... OFF  
 Throttle..... 1000 RPM

**BEFORE TAKEOFF**

Primer..... LOCKED  
 Fuel pump ..... ON  
 Pitot heat ..... AS REQUIRED  
 Flight instruments ..... CHECK  
 Static Source ..... NORMAL  
 Trim ..... TAKEOFF  
 Flight controls ..... CHECK  
**...CONTINUED ON BACK...**

Flaps.....NORMAL 0°, SHORT/SOFT 21°  
 Seats & seat belts..UPRIGHT & SECURE  
 Doors (Upper & Lower Latches)  
 .....CLOSED & LATCHED  
 Takeoff briefing .....COMPLETE  
 Radio .....TOWER/CTAF  
 #2 Radio (If installed .. MONITOR 121.5  
**Primer** .....**LOCKED**

**TAKEOFF**

Lights WHEN CLR'D FOR TAKEOFF ... ON  
 Mixture (below 5000') .....RICH  
 Throttle .....FULL  
 Power.....**2200-2350 RPM=STATIC**  
 Engine gauges.....CHECK  
 Airspeed .....CHECK  
 Rotate (0°/21°)..... 53/53 KIAS

**CLIMB**

Flaps...RETRACT AT SAFE SPEED (60 KIAS)  
 Airspeed (cruise climb).. 70 KIAS/500'/MIN  
 Fuel pump ..... OFF  
 Fuel & Oil pressure ..... CHECK

**CRUISE**

Power ..... AS REQUIRED  
 Mixture.....LEAN AS REQUIRED

**FUEL TANK SWITCH**

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

**DESCENT**

Power ..... AS REQUIRED  
 Mixture.....RICHEN AS REQUIRED  
 Fuel selector ..... FULLEST TANK  
 ATIS ..... OBTAIN  
 Altimeters. ....SET  
 Carb heat ..... AS REQUIRED  
 Seats & seat belts..UPRIGHT & SECURE

**APPROACH & LANDING**

Downwind.....80 KTS  
 Fuel pump ..... ON  
 Mixture (below 5000') .....RICH  
 Carb heat ..... AS REQUIRED  
 Flaps (<89 KIAS)..... AS REQUIRED  
 Landing (0°) ..... 70 KIAS  
 Landing (34°) ..... 67 KIAS

**AFTER LANDING**

Radio ..... GROUND/CTAF  
 RPM ..... 1000  
 Pitot Heat.....OFF  
 Flaps.....RETRACT  
 Fuel pump ..... OFF  
 Carb heat ..... OFF  
 Mixture..... LEAN  
 Lights.....AS REQUIRED  
 Transponder.....1200

**SHUTDOWN**

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

**WHEN PROP STOPS**

Magneton ..... OFF, KEY OUT  
 Electrical switches ..... OFF  
 Master ..... OFF  
 Hobbs & tach ..... RECORD  
 Flight controls.....SECURE  
 Tie downs.....SECURE  
 Cover ..... ON

**SPEEDS**

Vg (0°) ..... 73 KIAS  
 .... glide distance approx 1 NM per 550'  
 Va (2325/1531 lbs) .....111/88 KIAS  
 Vfe .....103 KIAS  
 Vy (0°)..... 70 KIAS  
 Vx (0°)..... 61 KIAS  
 Vx (21°)..... 61 KIAS  
 Vs0 Full Flaps..... 49 KIAS

**SPECS**

Usable fuel tabs/full ..... **24g/30g**  
 Taxi fuel ..... 1.0g  
 Climb fuel .....12.0 GPH  
 Crosswind.....17 KTS  
 Maneuvers..... 2200 RPM/90 KTS  
 Cruise 3000'@75% ... 2500 RPM/90KTS  
 Cruise GPH@75% (leaned) .....6.5

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**ASH**

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**BOS APP** ..... **124.9**

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

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

**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  
 Fire Extinguisher .....ACTIVATE

**ENGINE POWER LOSS IN FLIGHT**

Fuel selector .... SWITCH-TANK WITH FUEL  
 Fuel pump .....ON  
 Mixture ..... RICH  
 Carb heat .....ON  
 Primer..... LOCKED  
 Magnetos ..L then R then back to BOTH  
 Throttle & Mixture .....TRY DIFFERENT SETTINGS  
 Engine gauges ..... CHECK

**POWER OFF LANDING**

Trim for best glide ..... 70 KIAS  
 Landing area.....IDENTIFY  
 Radio ..... MAYDAY  
 ELT .....ON  
 Transponder .....7700  
 Final approach (Full Flaps)..... 67 KIAS  
 Magnetos ..... OFF  
 Master switch..... OFF  
 Fuel selector ..... OFF  
 Mixture ..... CUTOFF  
 Seatbelts.....SECURE  
 Door .....UNLATCH

**ENGINE ROUGHNESS**

Carb heat .....ON  
 If still rough after ONE MINUTE:  
 Carb heat ..... OFF  
 Mixture .....ADJUST TO SMOOTHEST  
 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  
 Cabin Heat ..... OFF  
 Speed .....INCREASE TO EXTINGUISH  
 Land ..... IMMEDIATELY

**LOSS OF FUEL PRESSURE**

Fuel pump .....ON  
 Fuel selector .....CHECK ON FULL TANK

**ELECTRICAL (CABIN) FIRE**

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