

FREQUENCIES

BED

ATIS124.6
 GROUND121.7
 TOWER118.5
 BOS APP124.4
 Signature.....130.8
or 781-274-0010

OWD

ATIS119.95
 GROUND121.8
 TOWER126.0
 BOS APP124.1

ASH

ATIS125.1
 GROUND121.8
 TOWER133.2
 BOS APP124.9

Practice area-ALL-..123.5

Emergency (guard) 121.5

COCKPIT SAFETY
CHECK

Magnetos (4)OFF
 MixturesCUTOFF
 ThrottlesCLOSED
 Gear selector.....DOWN

PREFLIGHT

Hobbs & tach..... RECORD
 Docs (AROW) CHECK
 Flight controls RELEASE
 Gear selector.....DOWN
 Parking brake AS REQUIRED
 Cowl flaps..... OPEN
 Fuel selectors ON
 Avionics master OFF
 Electric switches OFF
 Master switch ON
 Gear lights..... 3 GREEN
 Fuel gauges CHECK
 Annunciator panelTEST
 Pitot heat... ON, CHECK, OFF
 Ext. lights .. ON, CHECK, OFF
 Master switch OFF
 Altimeter . FIELD ELEVATION
 Magnetic compass.... CHECK
 Alternate staticNORMAL
 Pitot & static drains ...DRAIN
 Flight controls CHECK
 Flaps..... EXTEND
 Fire extinguisher CHECK
 Windows..... CHECK
 Emergency exit..... CHECK

RIGHT WING

Fuel sumps.....DRAIN
 General condition.... CHECK
 Flap..... CHECK
 Aileron..... CHECK
 Wingtip CHECK
 Tie down/chock REMOVE
 Scupper drain..... CHECK
 Fuel tank vent CHECK
 Fuel tank & cap CHECK
 Cowling..... CHECK
 Oil (max 6,min 5.5).. CHECK
 Propeller & spinner... CHECK
 Alternator belt..... CHECK
 Engine air inlets..... CHECK
 Cowl flap CHECK
 Main gear CHECK

NOSE

General condition.... CHECK
 Battery vents CLEAR
 Heater air inlet CLEAR
 Cowl..... NO DEFORMATION
 FROM HEATER
 Nose gear..... CHECK
 Chock REMOVE

LEFT WING

General condition.... CHECK
 Stall horns..... CHECK
 Cowling CHECK
 Oil (max 6, min 5.5). CHECK
 Propeller & spinner... CHECK
 Alternator belt..... CHECK
 Engine air inlets..... CHECK
 Cowl flap CHECK
 Main gear CHECK
 Scupper drain..... CHECK
 Fuel tank vent CHECK
 Fuel tank & cap CHECK
 Tie down/chock REMOVE
 Stall Warning Vanes.. CHECK
 Pitot Tube 3 Holes.... CHECK
 Wingtip CHECK
 Aileron..... CHECK
 Flap..... CHECK

LEFT FUSELAGE

General condition.... CHECK
 Emergency exit CHECK
 Antennas..... CHECK
 Fresh air inlet..... CHECK

EMPENNAGE

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

RIGHT FUSELAGE

General conditionCHECK
 Antennas.....CHECK
 Baggage area..... SECURE
 Baggage Door.....Unlocked
 & LATCHED

BEFORE ENGINE
START

Tail Lock.....IN COCKPIT
 Flaps RETRACT
 Passenger brief .. COMPLETE
 Seats & seat belts... SECURE
 Fuel selectors.....ON
 Circuit breakers.....CHECK
 Carb heats.....OFF
 Strobes.....ON
 Heater.....OFF
 Propellers..... MAX RPM
 Mixtures..... RICH
 Brakes SET & HOLD
 Master & Alt switchesON

ENGINE START - L & R

Throttle... ¼" COLD, ½" HOT
 Fuel pumpON
 MagnetosON
 Prime 3-5 SECS IF COLD
 Propeller area CLEAR
 Starter..... ENGAGE
 Throttle.. 800 RPM (No Higher
 Than 1000)
 Oil pressureCHECK
 L Gyro Vac.....PRESSURE &
 BUTTON IN
 ENGINE Fuel pumpOFF
 Mixture LEAN

REPEAT FOR RIGHT
ENGINE

BEFORE TAXI

Fuel selectors.....X-FEED
 Avionics master.....ON
 Lights AS APPROPRIATE
 Autopilot TEST & OFF
 Transponder (1200)ALT
 RadiosSET
 ATIS.....CHECK
 Flight instruments.....SET
 Navigation.....SET
Fuel selectors.....ON
 Radio. CLNC, GROUND/CTAF

TAXI

Parking BrakeRELEASE
 BrakesCHECK
 Flight instruments.....CHECK

ENGINE RUNUP

Brakes..... SET & HOLD
 Mixtures (<5000') RICH
 Throttles 1500 RPM
 Props (<500 drop)
 FEATHER CHECK
 Throttles 2000 RPM
 Mags (175/50).....CHECK
 Props (<300 drop)....CHECK
 Vacuums (4.8-5.2") ..CHECK
 Engine gaugesCHECK
 Ammeters CHARGING
 Annunciator panel..... TEST
 Carb heat.....CHECK
 Throttles (min 500).....IDLE
 Throttles 1000 RPM
 Flight controls.....CHECK

BEFORE TAKEOFF

Fuel selectors..... ON
 Fuel pumps ON
 Propellers..... MAX RPM
 Cowl flapsOPEN
 Pitot heat.....AS REQD
 Flight instruments....CHECK
 TrimsCHECK
 Flaps 0°-10°, SHORT 0°
 Seats & seat belts... SECURE
 Door & window..... SECURE
 Lights ON
 Takeoff briefing...COMPLETE
 Radio TOWER/CTAF

TAKEOFF

Mixtures (<5000') RICH
 Throttles FULL
 Power (2700).....CHECK
 Engine gaugesCHECK
 AirspeedCHECK
 Rotate (norm/short)... 75/70
 Initial Climb....88 (Blue Line)

CLIMB

FlapsRETRACT
 Gear..... UP
 Power/PropsAS REQD
 Airspeed .. 105/500'/minute
 Cowl flapsAS REQD

CRUISE

Fuel pumpsOFF
 Power/PropsAS REQD
 Mixtures.....LEAN AS REQD
 Cowl flapsAS REQD

DESCENT

Power/Props.. AS REQUIRED
Mixture RICH/AS REQUIRED
Cowl flaps..... AS REQUIRED
Carb heat.....AS REQUIRED
Seats & seat belts
..... UPRIGHT & SECURE

APPROACH & LANDING

Downwind..... 100
Fuel selectors ON
Fuel pumps ON
Gear (<140)DOWN
Mixtures (<5000')RICH
Propellers MAX RPM
Carb heats AS REQD
Flaps (<111)..... AS REQD
Landing (0°) 80-90
Landing (40°)..... 75-85

AFTER LANDING

Radio GROUND/CTAF
RPM.....1000
Flaps..... RETRACT
Carb heats OFF
Cowl flaps OPEN
Fuel pumps OFF
Mixtures LEAN
Heater..... FAN 2 MINS, OFF
Pitot HeatOFF

SHUTDOWN

Call for fuel AS REQD
Avionics master OFF
Electrical switches OFF
Throttles..... IDLE
L Mixture CUTOFF
Gyro.. . Ck L BUTTON OUT R-IN
REPEAT FOR RIGHT ENGINE
Magnetos..... OFF
Master & Alt switches.... OFF
Cowl flaps..... CLOSED
Hobbs & tach..... RECORD
Flight controls SECURE
Tie downs SECURE
Cover..... ON

EMERGENCIES NOTE:

NOT ALL EPs are here:

Check POH for additional procedures

ENGINE FIRE - START

Mixture CUTOFF
Throttle FULL OPEN
Starter
..... CONTINUE CRANKING
Fuel pumps OFF
Fuel selectors OFF

ENGINE FAIL - TAKEOFF

ThrottlesCLOSED
If airborne LAND
Brakes AS REQD
If insufficient runway:
Mixtures OFF
Fuel OFF
Mags OFF
Masters OFF

ENGINE FAIL - CLIMB

Mixtures FORWARD
Props FORWARD
Throttles FORWARD
Flaps UP
Gear CHECK UP
Airspeed 88
In-op eng IDENTIFY & VERIFY

In-op eng throttle CLOSE
In-op eng prop FEATHER
Bank to good engine..... 2-3°
Rudder HALF BALL

GO TO ENG FAIL SECURE CK LIST**ENGINE FAIL SECURE****On the IN-OP engine:**

Throttle CLOSE
Prop FEATHER
Mixture CUTOFF
Cowl flap CLOSE
Alternator OFF
Mags OFF
Fuel pump OFF
Fuel selector OFF
Electrical load REDUCE
x-feed AS REQD

ENGINE FAIL IN FLIGHT

Airspeed >88
Mixtures FORWARD
Props FORWARD
Throttles FORWARD
Flaps, Gear CHECK UP
In-op eng .. TROUBLESHOOT

ONE ENGINE LANDING

In-op engine SECURE
Airspeed 90

When Landing Assured:

Gear DOWN
Flaps 25°

ENGINE FIRE -**On the Affected Engine:**

Fuel selector OFF
Throttle CLOSED
Propeller FEATHER
Mixture CUTOFF
Cowl flap OPEN
Affected engine SECURE
Airspeed
..... INCREASE TO EXTINGUISH
Land A.S.A.P.

ELECTRICAL FIRE

Master & Alt switches OFF
Electrical switches OFF
Vents CLOSED
Cabin heater OFF
Fire extinguisher... AS REQD
POH CONSULT
Land... SOON AS PRACTICAL

ENGINE TROUBLESHOOT

In-op eng. IDENTIFY & VERIFY
In-op eng carb heat ON
Fuel Selectors ON
In-op eng AIR START

ENGINE AIR START

Fuel selector ON/X-FEED
Mags ON
Fuel pump ON
Mixture RICH
Throttle OPEN ¼"
Propeller MAX RPM
Starter.... ENGAGE IF REQD
Throttle.. REDUCE TO WARM
Alternator switch ON

ENGINE ROUGHNESS

Carb heat ON
If still rough after 1 minute:
Carb heat OFF
Mixture ADJUST SMOOTH
Fuel pump ON
Engine gauges CHECK
Mags CHECK
Mixture (if one mag) ... RICH
Land... SOON AS PRACTICAL

MANUAL GEAR EXT

Master & Alt switches ON
Circuit breakers CHECK
Nav light switch OFF
Gear bulbs CHECK
Airspeed <100
Gear selector DOWN
Emergency gear knob
..... PULL & LEAVE OUT

SPEEDS KIAS

Va (3800/2700) 135/112
Vfe 111
Vlo (up,down) 109,140
Vle 140
Vy, Vyse (gear up,0°) 88
Vy (gear down,0°) 78
Vx (gear down,0°) 82
Vsse 82
Vmc 56
Vs0 55
Vs1 57

SPECS

Usable fuel 108g
Taxi fuel 2.7g
Heater (left tank) ... 0.5 GPH
Climb fuel full pwr ... 36 GPH
Crosswind 17 KTS
Maneuvers 2400/17"/110
Cruise 75% leaned:
..... 2400, 23.4 GPH
3000' 24.4", 155
6000' FT, 160
Cruise 65% leaned:
..... 2400, 20.4 GPH
3000' 22.0", 147
6000' 21.3", 151
Simulated Zero Thrust.....
..... 82 KIAS, 1850 RPM
..... 88 KIAS, 2180 RPM
..... 100 KIAS, 2510 RPM
..... 110 KIAS, 2690 RPM

FREQUENCIES**BED**

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

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