

FREQUENCIES

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

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
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COCKPIT SAFETY CHECK

Magnos OFF, KEYS OUT
Mixture CUTOFF
Throttle CLOSED

PREFLIGHT

Gen' conditionCHECK & CLEAR
Hobbs & tachRECORD
Documents (AROW)CHECK
Flight controls.....RELEASE
Parking brakeAS REQUIRED
Avionics/Radio masterOFF
Electrical switchesOFF
Master switch (UPPER PANEL)ON
Fuel gaugesCHECK
Annunciator panelTEST
Aux vacuum pumpCHECK
Pitot heatON,CHECK,OFF
Exterior lights(UPPER PANEL) .. ON, CHECK,OFF
Stall hornCHECK
Annunciator PanelCHECK
Master switchOFF
AltimeterFIELD ELEVATION
Magnetic compass.....CHECK
Pitot & static drainsDRAIN
Flight controlsCHECK
FlapsEXTEND
Fire extinguisher.....CHECK
Windows.....CHECK

RIGHT WING

Gen' conditionCHECK & CLEAR
FlapCHECK
AileronCHECK
WingtipCHECK
Tie down/chockREMOVE
Fuel tank ventCHECK
Fuel tank sumpDRAIN / NO DRIPS
Fuel tankCHECK
Fuel cap & Vent.....CHECK
Main gearCHECK
Fresh air inletCHECK
Gen' Condition & leaksCHECK

NOSE

CowlingSECURE
Oil (max 6, min 5.5)CHECK
Propeller & spinnerCHECK
Alternator belt.....CHECK
Air inlets.....CHECK
Nose gearCHECK
ChockREMOVE
Fuel strainerDRAIN & NO DRIPS
General condition & leaksCHECK
CowlingSECURE

LEFT WING

General conditionCHECK & CLEAR
Fresh air inletCHECK
Main gearCHECK
Fuel tank ventCHECK
Fuel tank sumpDRAIN & NO DRIPS
Fuel tankCHECK
Fuel cap & Vent.....CHECK
Tie down/chockREMOVE
Pitot Tube 3 HolesCHECK
WingtipCHECK
AileronCHECK
FlapCHECK

LEFT FUSELAGE

General condition.....CHECK
General condition.....CHECK
AntennasCHECK
Fresh air inlet.....CLEAR

EMPPENNAE

Fresh air inlet.....CLEAR
Stabilator.....CHECK& CLEAR
Trim tabCHECK & CLEAR
RudderCHECK & CLEAR
AntennasCHECK
Tie downREMOVE

RIGHT FUSELAGE

General condition.....CHECK
General conditionCHECK
AntennasCHECK
Baggage areaSECURE
Baggage doorUn-locked & LATCHED

BEFORE ENGINE START

Tail LockIN COCKPIT
FlapsRETRACT
Passenger briefingCOMPLETE
Seats & seat beltsSECURE
Alternate Static SourceOFF
Fuel selector LOWEST or EITHER TANK
Circuit breakersCHECK
StrobesON
Carb heatOFF
BrakesSET & HOLD

ENGINE START

Throttle1/4" COLD,1/2" HOT
Master & Alt switches.....ON
Fuel pump(UPPER PANEL)ON
MixtureRICH
Prime3 to 5 Seconds MAX
Propeller areaCLEAR

LEFT MAG (UPPER PANEL).....ON

StarterENGAGE
RIGHT MAG (UPPER PANEL).....ON
Throttle ..800 RPM (No Higher Than 1000)
Oil pressureCHECK
Fuel pumpOFF
MixtureLEAN

BEFORE TAXI

MixtureLEAN
Avionics/Radio master.....ON
Autopilot Tests.....CHECK
Transponder (1200 VFR)ALT
RadiosSET
ATISCHECK
Flight instrumentsSET
LightsAS APPROPRIATE
Navigation & TransponderSET
RadioCLNC, GROUND/CTAF
#2 RadioMONITOR 121.5

TAXI

Parking Brake.....RELEASE
BrakesCHECK
Flight instrumentsCHECK

ENGINE RUNUP

Flight instrumentsCHECK
BrakesSET & HOLD
Oil TempIN THE GREEN
Fuel selectorOTHER TANK
Mixture (below 5000').....RICH
Throttle2000 RPM
Mags (drop 175,diff 50)CHECK
Vacuum (4.8-5.2")CHECK
Engine gaugesCHECK
Annunciator panelTEST
Load meterCHARGING LTS & pitot on/off
Carb heat (max drop-75 RPM)ON
Throttle (min 500 RPM)IDLE
Carb heatOFF
Throttle1000 RPM
Flight controlsCHECK

BEFORE TAKEOFF

Flight controlsCHECK
Fuel pumpON
Pitot heatAS REQUIRED
Flight instrumentsCHECK
Trims (Aileron & Rudder).....TAKEOFF
FlapsNORMAL 0°, SHORT/SOFT 25°
Seats & seat beltsUPRIGHT & SECURE
Door & windowSECURE
LightsON
Takeoff briefingCOMPLETE
RadioTOWER/CTAF

SPEEDS

Vg (0°)73 KIAS
glide distance approx 1 NM per 550'
V_a113 KIAS
V_fe103 KIAS
V_y (0°)76 KIAS
V_x (0°)64 KIAS
V_x (25°)60 KIAS
V_{s0}44 KIAS
V_{s1}50 KIAS

TAKEOFF

Mixture (below 5000') RICH
 Throttle FULL
 Power (2240-2340 RPM=STATIC) . CHECK
 Engine gauges CHECK
 Airspeed CHECK
 Rotate ($0^\circ/25^\circ$) **60/55KIAS**

CLIMB

Flaps.....RETRACT AT SAFE SPEED (60KIAS)
 Airspeed (cruise climb) 87 KIAS
 Fuel pump OFF
 Fuel & Oil pressure CHECK

CRUISE

Power AS REQUIRED
 Mixture LEAN AS REQUIRED

FUEL TANK SWITCH

Mixture LEAN AS REQUIRED
 Fuel pump ON
 Fuel selector DESIRED TANK
 Fuel pressure CHECK
 Fuel pump OFF

DESCENT

Mixture LEAN AS REQUIRED
 Power AS REQUIRED
 Mixture AS REQUIRED
 Carb heat AS REQUIRED
 Seats & seat beltsUPRIGHT & SECURE

APPROACH & LANDING

Downwind 90 KTS
 Fuel pump ON
 Fuel selector FULLEST TANK
 Mixture (below 5000') RICH
 Carb heat AS REQUIRED
 Flaps (<102 KIAS) AS REQUIRED
 Landing (0°) 75 KIAS
 Landing (40°) 66 KIAS

AFTER LANDING

RPM 1000
 Radio GROUND/CTAF
 Flaps.....RETRACT
 Fuel pump OFF
 Carb heat..... OFF
 Mixture LEAN
 Pitot Heat OFF

SHUTDOWN

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

SHUTDOWN

Magnos OFF, KEY OUT
 Electrical switches OFF
 Master & Alt switches (UPPER PANEL). OFF
 Hobbs & tach RECORD
 Flight controls.....SECURE
 Tie downs SECURE
 Cover ON

SPEEDS

Vr (0°) 60 KIAS
 Vr (25°) 55KIAS
 Vg (0°) .. 73 KIAS
 glide distance approx 1 NM per 550'
 Va 113 KIAS
 Vfe 103 KIAS
 Vy (0°)..... 76 KIAS
 Vx (0°)..... 64 KIAS
 Vx (25°)..... 60 KIAS

SPEEDS FOR EMERGENCY OPERATIONS

Downwind 90 KTS
 Engine Failure After Takeoff 63 KTS
 Maximum Glide 73 KTS
 Landing Without Engine Power:
 Flaps Up 73KTS
 Flaps Down 63 KTS

ENGINE FIRE DURING START

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

ENGINE FAILURE AFTER TAKEOFF

Fuel Selector SWITCH TANKS
 Fuel Pump CHECK ON
 Airspeed.....65 KTS

IF ENGINE FAILS TO RESTART

Mixture CUTOFF
 Fuel Shut Off Valve OFF
 Mags OFF

ENGINE POWER LOSS IN FLIGHT

Fuel selector FULLEST TANK
 Fuel pump ON
 Mixture RICH
 Carb heat ON
 Magnos..... BOTH
 Engine gauges CHECK

POWER OFF LANDING

Va 113 KIAS
 Trim for best glide 73 KIAS
 Landing area IDENTIFY
 Radio MAYDAY
 Transponder 7700
 Final approach (40°) 66 KIAS
 Magnos OFF
 Master switch OFF
 Alternator 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
 Magnos 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

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..... AS NECESSARY
 Land AS SOON AS PRACTICAL

COMMUNICATION LOSS

Frequency CHECK
 Volume/Squelch..... CHECK
 Speaker/Phones Switch CHECK
 Headset Jacks CHECK
 Circuit Breakers CHECK
 Other Radio IF AVAILABLE
 VOR Frequency..... MONITOR
 Squawk 7600
 Tower Lights Signals..... OBSERVE

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