

PREFLIGHT INSPECTION

CABIN

Certificates/DocumentsIN AIRCRAFT
Airworthiness Certificate
Registration
Radio Operators/Station License (**International Flights Only**)
Operating Limitations / Airplane Flight Manual
Weight & Balance (current)
 Parking BrakeSET
 Control Wheel Lock..... REMOVE
 Ignition SwitchOFF
 Master SwitchON
 Fuel Quantity IndicatorsCHECK QUANTITY
 Anti-collision / Strobe Lights.....CHECK OPERATION
 FlapsDOWN FOR INSPECTION
 **For Night Operation: LightsCHECK
 Master SwitchOFF
 Fuel SelectorFULLEST TANK
 Baggage DoorCHECK SECURE

RIGHT WING

Flap TracksCHECK
 AileronCHECK FREEDOM & SECURE
 Nav. LightUNBROKEN (**GREEN**)
 Fuel Tank Vent OpeningCHECK
 Fuel QuantityCHECK VISUALLY
 Fuel Filler CapSECURE
 Wing Tie-downREMOVE
 Fuel Tank Sump Quick-Drain ValveDRAIN
 Main Wheel Tire.....CHECK WEAR & INFLATION (24 psi)
 Shock StrutCHECK PROPER INFLATION
 Approx. 4.5 inches showing

NOSE

WindshieldCHECK CLEAN
 Wheel ChocksREMOVE
 Engine Oil Dipstick.....CHECK (6-8 qt.)
 Nose WheelCHECK WEAR & INFLATION (24 psi)
 Shock StrutCHECK PROPER INFLATION
 Approx. 3.25 inches showing
 Air InletCHECK FREE OF FOREIGN MATTER
 Landing LightCHECK
 Propeller & SpinnerCHECK
 Tow BarREMOVE
 Engine Fuel StrainerDRAIN

LEFT WING

Main Wheel TireCHECK WEAR & INFLATION (24 psi)
 Shock StrutCHECK PROPER INFLATION
 Approx. 4.5 inches showing
 Fuel Tank Sump Quick-Drain ValveDRAIN
 Wing Tie-downREMOVE
 Fuel QuantityCHECK VISUALLY
 Fuel Filler CapSECURE
 Pitot Tube/Static Vent.....CHECK
 Fuel Tank Vent OpeningCHECK
 Stall Warning Tab.....CHECK
 Nav. LightUNBROKEN (**RED**)
 AileronCHECK FREEDOM & SECURE
 Flap TracksCHECK

TAIL SECTION

Tail Tie-DownREMOVE
 Elevator & RudderCHECK FREEDOM & SECURE
 Nav. LightsUNBROKEN (WHITE)

BEFORE STARTING ENGINE

ChocksREMOVE
 Preflight InspectionCOMPLETE
 Passenger BriefingCOMPLETE
 Seats, Seat Belts, HarnessADJUST & LOCK
 BrakesSET

Circuit BreakersCHECK IN
 Electrical EquipmentOFF
 Fuel Selector.....FULLEST TANK
 Tow BarREMOVED/SECURED

STARTING ENGINE

MixtureRICH
 Carburetor HeatCOLD
 Prime(2-3 strokes) AS REQUIRED
 ThrottleOPEN ¼ inch
 Master SwitchON
 Fuel Pump.....ON
 Anti-Collision Light.....ON
 Propeller AreaCLEAR
 Ignition SwitchSTART
 Oil PressureCHECK
 Engine Warm-up.....THROTTLE 800-1200 RPM
 Fuel PumpOFF
 MixtureLEAN FOR TAXI

BEFORE TAXI

Lights & StrobesAS REQUIRED
 RadiosON-SET
 TransponderSTANDBY
 FlapsUP
 Seats, Belts, HarnessesCHECK SECURE
 BrakesTEST

BEFORE TAKEOFF

Parking BrakeSET
 Seats, Belts, HarnessesCHECK SECURE
 Cabin Door.....CLOSED & LOCKED
 Flight ControlsFREE & CORRECT
 Fuel SelectorFULLEST TANK
 Elevator TrimSET for takeoff
 Check electric trim cut-out / Manual override.
 Fuel QuantityCHECK
 MixtureRICH
 Throttle2000 RPM
 MagnetosCHECK
 (175 max drop / 50 max diff.)
 Carburetor HeatCHECK
 Suction GageCHECK
 (4.9 to 5.1)
 Engine Instruments & AmmeterCHECK
 ThrottleCHECK IDLE LIMITS (650 RPM)
 If holding for Takeoff IDLE at 1200 RPM
 Throttle Friction LockADJUST
 Flight InstrumentsCHECK & SET
 RadiosSET
 TransponderALTITUDE
 AutopilotOFF
 Fuel PumpON
 Wing FlapsSET for takeoff
 LightsAS DESIRED
 BrakesRELEASE
 *** (Note time of departure for fuel purposes.)

TAKE OFF

NORMAL TAKEOFF

Wing Flaps0 Degrees
 Carburetor HeatCOLD
 Throttle.....FULL OPEN
 Elevator ControlLIFT NOSE WHEEL (60 MPH)
 Climb Speed74- 85 MPH

ENROUTE CLIMB

Airspeed100 MPH
 ThrottleFULL OPEN
 MixtureRICH (until 3000 feet)

CRUSE

Power2000 – 2500
 ElevatorADJUST
 MixtureLEAN for max rpm

DESCENT

Fuel Selector FULLEST TANK
 PowerAS DESIRED
 MixtureADJUST
 Carburetor HeatAS REQUIRED

BEFORE LANDING

AutopilotOFF
 Fuel PumpON
 Seats, Belts, HarnessesSECURE
 Fuel Selector FULLEST TANK
 MixtureRICH
 Carburetor HeatONLY IF CARB. ICE SUSPECTED

LANDING

NORMAL LANDING

Airspeed 85 MPH (flaps up)
 Wing Flaps.....AS DESIRED (below 115 MPH)
 Airspeed 76 MPH (full flaps)
 TouchdownMAINS FIRST
 Landing RollLOWER NOSE WHEEL GENTLY
 BrakingMINIMUM REQUIRED

AFTER LANDING

Carburetor HeatCOLD
 Wing FlapsUP
 TransponderSTANDBY
 LightsAS REQUIRED

*** (Note time of landing to compare against the Hobbs.)

SHUTDOWN

AvionicsOFF
 Electrical Equipment & LightsOFF
 Throttle1000 RPM
 MixtureIDLE CUT-OFF
 Ignition SwitchOFF
 MasterOFF
 Control LockINSTALL
 Hobbs & TachRECORD
 AircraftSECURE

USEFUL INFORMATION

Aircraft V-Speeds:

Vr: (Rotation Speed) 60 MPH
Vx: (Best angle of climb) 74 MPH
Vy: (Best rate of climb) 85 MPH
Va: (Maneuvering Speed) 129 MPH
Vfe: (Max flap extended speed) 115 MPH
Vno: (Max structural cruising speed) 140 MPH
Vne: (Never exceed speed) 171 MPH
Vs1: (Stall Speed (clean)) 67 MPH
Vso: (Stall Speed (dirty)) 57 MPH
Glide: (clean) **80 MPH**

Note: All Speeds are for Gross Weight (2400 lbs) aircraft.

Weight & Balance:

Max Gross Weight: 2400.00 lbs.
 Basic Empty Weight: 1422.18 lbs.
 Useful Load: 977.82 lbs.
 Payload: 677.82 lbs. (w/ full 50gal fuel)
 Moment: 124839.60
 Center of Gravity: 87.78 in.

Standard Fuel Loading:

50 gallons (full tanks) 300 lbs
 36 Gallons (Tabs) 216 lbs
 0.25 Gallons Unusable Fuel 2 lbs

EMERGENCY PROCEDURES

ENGINE FIRE DURING START (results from over priming)

Starter.....CONTINUE TO CRANK ENGINE
 ThrottleOPEN
 MixtureIDLE CUT-OFF
 Electric Fuel PumpOFF
 Fuel Selector.....OFF
 Aircraft..... ABANDON IF FIRE CONTINUES

ENGINE POWER LOSS DURING TAKE-OFF

If sufficient runway remains for a normal landing land straight ahead.
 If insufficient runway remains, maintain a safe airspeed and make only shallow turns to avoid obstructions.
 If you have gained sufficient altitude to attempt a restart, proceed with next checklist.

ENGINE FAILURE DURING FLIGHT (restart)

Airspeed **80 MPH**
 Fuel SelectorSWITCH TANKS*
 Electric Fuel Pump.....ON
 MixtureRICH
 Carburetor Heat.....ON
 Engine Gauges.....CHECK FOR CAUSE
 PrimerIN & LOCKED
 Ignition Switch“L” then “R” back to BOTH
 Transponder **7700**
 Radio **121.5 MAYDAY****

* If engine failure was caused by fuel exhaustion, power will not be regained after tanks are switched until empty fuel lines are filled, which may require up to ten seconds.

** When calling on 121.5 say your last known position number of people on board, how much fuel, and what kind of emergency. It is recorded and they will be able to find you and take care of you faster.

POWER OFF LANDING

Airspeed **80 MPH**
 Ignition SwitchOFF
 Master SwitchOFF
 Fuel Selector.....OFF
 MixtureCUT—OFF
 Seat belt and harness.....TIGHT
 FlapsAS REQUIRED
 (Full Flaps Down)..... **75 MPH**
 Cabin Door.....UNLACH PRIOR TO TOUCH DOWN
 TouchdownSLIGHTLY TAIL LOW(min. speed)

ELECTRICAL FIRE (smoke in cabin)

Master Switch.....OFF
 Vents.....OPEN
 Cabin Heat.....OFF
 Land as soon as Practical

ENGINE FIRE

MixtureCUT—OFF
 Fuel Selector.....OFF
 Electric Fuel Pump.....OFF
 Master SwitchOFF
 Magneto SwitchOFF
 Throttle.....CLOSED
 Dive to blow out fire.....IF ALTITUDE PERMITS

Proceed with POWER OFF LANDING procedure

Copies of ALL Mentone Flying Club Aircraft Checklists can be found on the club’s website www.mentoneflyingclub.org.