Normal Procedures
Pre-Flight Inspection (starting at left door, and proceeding clockwise)

Interior
1. Pre-heat if temperature below 20°
2. Aircraft Flight Log, AFTO 781, and Hobbs meter – CHECKED
3. Airworthiness Certificate, Registration - CHECKED
4. 2 Quarts of oil - spare
5. Control Lock - REMOVE
6. Ignition Switch - OFF
7. Master Switch –ON
8. Fuel quantity - CHECKED
9. Flaps DOWN
10. Check lights, interior and exterior (night flight)
11. Master Switch – OFF

Left Main Gear
1. Chock - Remove
2. Tire – Check for inflation and condition
3. Brakes – Check lines and brake pads

Left Wing
1. Fuel Drain – Check for dirt and water
2. Flap – Condition; Push Rod
3. Aileron – Condition, Free to move
4. Wingtip – Condition; Strobe light and position light - secure
5. Leading Edge – Condition
6. Tie-down - Remove
7. Landing Lights – Clean and Secure
8. Pitot Tube - Secure and clear
9. Fuel Vent – Secure and clear
10. Fuel tank Check quantity and Cap - Secure

Nose Section
1. Static Port – Clear
2. Propeller - Check for dents and damage; check for security
3. Air intakes and air filters – Clean and free of obstructions
4. Nose Wheel – Check inflation and condition
5. Nose wheel strut – extended
6. Tie-down - Remove
7. Chock – Remove
8. Fuel Drain – Pull(after refueling and first flight of day)
9. Oil – 4 qts Min, 5 qts. Max (6 qts. Max for 3 hr flights)

Right Wing
1. Fuel tank Check quantity and Cap - Secure
2. Tie-down – Remove
3. Leading Edge – Condition
4. Wingtip – Condition; Strobe and position light – secure
5. Aileron – Condition, Free to move
6. Flap – Condition; Push Rod
7. Fuel Drain – Check for dirt and water

Right Main Gear
1. Chock - Remove
2. Tire – Check for inflation and condition
3. Brakes – Check lines and brake pads

Right Fuselage
1. General condition

Tail
2. Elevator – Secure
3. Rudder - Secure
4. Cables - Connected
5. Trim Tab – Connected
6. Tie-down – Remove
7. Position Light – Secure

Left Fuselage
1. General condition
2. Antenna – Secure

Before Starting Engines
1. Seat – ADJUST AND LOCK
2. Seat Belt -FASTEN
3. Flight Controls – Check for Free and Proper Movement
4. Fuel Valve – OPEN
5. All Electrical Switches - OFF
6. Circuit Breakers – IN
7. Elevator Trim – TAKEOFF

Starting Engines
1. Master Switch – ON
2. Flaps - UP
3. NIGHT: Navigation Lights - ON
4. Carburetor Heat - COLD
5. Mixture – FULL RICH
6. Prime – AS REQUIRED
7. Throttle ¼ to ½ inch
8. Propeller Area – CLEAR
9. Ignition Switch – START (Release to “Both” when engine starts)
10. Throttle 1000 – 1200 RPM
11. Oil Pressure – INDICATING

Before Taxi
1. Lights – AS REQUIRED
2. Clock - SET
3. Radios – ON
4. Transponder - STANDBY
5. ATIS Check (119.35 at OJC, 124.17 at LXT)
6. Call for Taxi Clearance (121.6 OJC – 122.8 LXT)

Taxi
1. Brakes – CHECK
2. Turn and Slip – INDICATES CORRECTLY

Before Takeoff
1. Doors and Windows – CLOSED AND LOCKED
2. Flight Controls – FREE AND PROPER
3. Flight Instruments – CHECKED
4. Throttle – 1700 RPM
5. Magnetos – CHECK (125 rpm max drop, 50 rpm max difference
6. Carburetor Heat Check
7. Engine Instruments and Suction gauge (4.6”- 5.4”) - CHECKED
8. Throttle – 1000-1200 RPM
9. Wing Flaps – AS REQUIRED
10. Fuel –ON
11. Elevator Trim – TAKEOFF
12. Lights and Pitot Heat– AS REQUIRED
13. Radios (COMM and NAV)- AS REQUIRED
14. Transponder – ALT
15. Call for Takeoff (OJC - 126.0; LXT -122.8)

**Normal Takeoff**
1. Flaps - UP
2. Carburetor Heat - COLD
3. Throttle - FULL
4. Rotate – 50
5. Climb - 75-80

**Maximum Performance Takeoff**
1. Flaps - 0° (Short field, NO OBSTACLES –Flaps-10°)
2. Carburetor Heat - COLD
3. Throttle - FULL
4. Soft Field – Raise nose, and fly in ground effect until climb speed is attained
5. Obstacle Clearance – Climb at 52
6. Clear obstacles, accelerate to normal climb speed, flaps up

**Level Off - Cruise**
1. Power and Mixture - SET
2. Engine Instruments and Fuel Quantity – CHECKED
3. Open Flight Plan

**Before Descent**
1. Mixture - RICH

**Before Landing**
2. ATIS – CHECK (119.35, OJC, 124.17 LXT)
3. Lights – AS REQUIRED
4. Mixture – RICH
5. Flaps – AS REQUIRED
6. Carburetor Heat – ON, when power is reduced

**After Landing (after clearing the active Runway)**
1. Radio – Ground (Contact if required – 121.6 OJC)
2. Call for fuel, if req’d – Air Associates: 122.95
3. Wing Flaps – UP
4. Exterior Lights – AS REQUIRED
5. Transponder – OFF
6. Carburetor Heat – COLD
7. Flight Plan - CLOSE

**Engine Shutdown – Secure Aircraft**
1. Throttle 1000 - 1200 rpm
2. Radios – OFF
3. Electrical Equipment – OFF
4. Throttle - IDLE
5. Magneto Grounding Check (Momentarily – Right, Left, Off, then Both)
6. Throttle – 1000 – 1200 RPM
7. Mixture – FULL LEAN
8. Ignition Switch – OFF (after propeller stops)
9. Master Switch –OFF
10. Control Lock Installed
11. Flight Log and AFTO 781 – COMPLETED
12. Personal equipment and trash – REMOVED
13. Headsets – INSALLED
Emergency Procedures
ITEMS IN BOLD MUST BE COMMITED TO MEMORY

ENGINE FIRE ON START
1. Continue cranking to attempt to suck flames back into engine
2. If unsuccessful, Then:
3. Mixture – FULL LEAN
4. Fuel Valve - OFF
5. Ignition Switch – OFF
6. Master Switch - OFF

ENGINE FIRE IN FLIGHT
1. Mixture – FULL LEAN
2. Fuel Valve - OFF
3. Ignition Switch – OFF
4. Master Switch - OFF
5. Airspeed - 60
6. Make Forced Landing

ENGINE FAILURE IN FLIGHT (Attempt restart if altitude permits)
1. Airspeed - 60
2. Mixture – FULL RICH
3. Fuel Valve – ON
4. Ignition Switch – START
5. If Restart is unsuccessful, Make Forced Landing

LOW OIL PRESSURE
1. Reduce Power
2. Land As Soon As Practicable

DISCHARGING AMMETER
1. Reduce Electrical Load

ELECTRICAL FIRE IN FLIGHT
1. Master Switch- Off
2. All Other Electrical Switches - OFF
3. Ventilate Cabin (open windows and doors)

ROUGH-RUNNING ENGINE
1. Airspeed - 60
2. Carburetor Heat – HOT (Full)
3. Mixture – RICH
4. Ignitions Switch – Right, then Left to see if engine smoothes out
5. Throttle – Adjust for smoothest engine operation

FORCED LANDING
1. Airspeed - 60
2. Mixture – Full Lean
3. Fuel – OFF
4. Ignition Switch – OFF
5. Flaps – AS REQUIRED
6. Radio for assistance if time permits
7. Master Switch – OFF
8. Doors - UNLATCH
### WEATHER BRIEFING

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### WEIGHT AND BALANCE

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\[ CG = \frac{TOT MOM}{TOT WT} \]

### FLIGHT PLAN INFO

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<td>13 ALTERNATE(S)</td>
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<td>6 PROPOSED DEPT TIME</td>
<td>14 PILOT’S NAME, ADDRESS, PHONE, A/C HOME BASE</td>
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<td>7 CRUISING ALT</td>
<td>15 NO. PERSONS ABOARD</td>
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<td>8 ROUTE OF FLT</td>
<td>16 COLOR OF A/C</td>
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CLOSE FLIGHT PLAN ON LANDING WITH __________________

Phone – 1 – 800 – WX BRIEF (1 – 800 – 992 – 7433)
Columbia Radio – 122.65  122.2

**TIME CONVERSION, LOCAL TO GMT**

- PST add 8
- MST add 7
- CST add 6
- EST add 5
- PDT add 7
- MDT add 6
- CDT add 5
- EDT add 4

**SPECIAL EQUIPMENT CODES**

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<td>B</td>
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<tr>
<td>C</td>
<td>RNAV, transponder with no altitude encoder</td>
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<tr>
<td>D</td>
<td>DME, no transponder</td>
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<tr>
<td>E</td>
<td>FMS Oceanic enroute terminal navigation and approach capability</td>
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<td>F</td>
<td>Same as E.; may not meet requirements for some approach and departure operations</td>
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**Rotate for takeoff** – 50

**Climb out** 80

**Maximum Flap Extend** 100

**Best Angle of Climb** 52

**Best Rate of Climb** 72

**Best Glide** 60

**Downwind** 80

**Base** 70

**Final (add ½ gust factor)** 65

**Final (no flap) (add ½ gust factor)** 70