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. 2 Quarts of oil - spare
4. Control Lock - Remove
5. Ignition Switch - Off
6. Master Switch – On
7. Check fuel quantity
8. Flaps - Down
9. Check lights, interior and exterior (night flight)
10. Check Pitot Heat, if instrument conditions exist
11. Master Switch – Off
12. Fuel Strainer Knob - Pull Out, 3 seconds

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 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. Oil Quantity – Check 9 qts min
3. Fuel Drain – Check for dirt and water
4. Nose Wheel – Check inflation and condition
5. Nose wheel strut – extended
6. Air intakes and air filters – Clean and free of obstructions  
7. Propeller - Check for dents and damage; check for security  
8. Tie-down - Remove  
9. Chock - Remove

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

**Right Fuselage**  
1. Condition

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

**Left Fuselage**  
1. Condition  
2. Antenna – Secure  
3. Baggage Door – Closed and locked

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**Before Starting Engines**  
1. Seat – ADJUST AND LOCK  
2. Seat Belt and Shoulder Harness - LOCK  
3. Flight Controls – Check for Free and Proper Movement  
4. Cowl Flaps - OPEN  
5. Fuel Selector – BOTH  
6. All Electrical Switches - OFF  
7. Circuit Breakers – IN  
8. Elevator Trim – TAKEOFF  
9. Rudder Trim – TAKEOFF

**Starting Engines**  
1. Master Switch – ON  
2. Flaps - UP  
3. NIGHT: Navigation Lights - ON  
4. Carburetor Heat - COLD  
5. Mixture – FUL RICH  
6. Prop – HIGH RPM  
7. Prime – AS REQUIRED  
8. Throttle ¼ to ½ inch  
9. Propeller Area – CLEAR  
10. Ignition Switch – START (“Both” when engine starts)  
11. Throttle 1000 – 1200 RPM  
12. 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 LXT)  
6. Call for Taxi Clearance (121.6 – OJC; 122.8 - LXT)

**Taxi**  
1. Brakes – CHECKED  
2. Turn and Slip – INDICATES CORRECTLY

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

**Normal Takeoff**
1. Flaps - UP
2. Carburetor Heat - COLD
3. Throttle and Prop - FULL
4. Rotate – 60
5. Climb 100-120

**Maximum Performance Takeoff**
1. Flaps - 20°
2. Carburetor Heat - COLD
3. Throttle and Prop - FULL
4. Soft Field – Raise nose, fly in ground effect until climb speed is attained
5. Obstacle Clearance – Climb at 60
6. Clear obstacles, accelerate to normal climb speed, flaps up

**After Takeoff (above 500 agl)**
1. Throttle and RPM – 23” and 2450 RPM
2. Cowl Flaps – (As required for engine cooling)

**Level Off - Cruise**
1. Throttle, Prop, and Mixture - SET
2. Engine Instruments and Fuel Quantity – CHECK
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. Fuel - Both
5. Cowl Flaps - Closed
7. Flaps – As Desired
8. Carburetor Heat – On when power is reduced

**After Landing (after clearing the active Runway)**
1. Radio – Ground (121.6 - OJC)
2. Call for fuel, if req’d – Air Associates: 122.95
3. Wing Flaps – Up
4. Cowl Flaps – Open
5. Transponder – Standby
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 prop stops)
9. Master Switch –OFF
10. Control Lock - INSTALLED
11. Flight Log and AFTO 781 – COMPLETE
12. Personal equipment and trash – REMOVED
13. Headsets – INSTALLED
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 – 80 mph
6. Make Forced Landing

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

ENGINE FAILURE IN FLIGHT (Attempt restart if altitude permits)
1. Airspeed – 80 mph
2. Mixture – FULL LEAN
3. Fuel Selector – BOTH
4. Ignition Switch – START
5. If Restart is unsuccessful, Make Forced Landing

ROUGH RUNNING ENGINE
1. Airspeed – 80 mph
2. Carburetor Heat – Hot (Full)
3. Mixture – FULL REICH
4. Ignitions Switch – Right, then Left to see if engine smoothes out
5. Throttle – Adjust for smoothest engine operation

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

DISCHARGING AMMETER
1. Reduce Electrical Load

FORCED LANDING
1. Airspeed – 80 mph
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

PROPELLER FAILURE
1. Adjust throttle to maintain safe flight while minimizing overspeed
2. Climb to put load on propeller
3. Manipulate propeller control to restore governing
4. Land as soon as possible
## WEATHER BRIEFING

### LOCATION TERMINAL FORECASTS

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<tr>
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### LOCATION METAR

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### LOCATION PIREPS \ NOTAMS

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### LOCATION WINDS & TEMPERATURES ALOFT

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<td>FUEL GAL x 6 # / GAL</td>
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## FLIGHT PLAN INFO

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<tr>
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<th>1 TYPE: IFR / VFR</th>
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<td>5 DEPARTURE POINT</td>
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<td>6 PROPOSED DEPT</td>
<td>14 PILOT’S NAME, ADDRESS,</td>
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<td>7 CRUISING ALT</td>
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<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

<p>| A DME, transponder with altitude encoder |
| B DME, transponder, with no altitude encoder |
| C RNAV, transponder with no altitude encoder |
| D DME, no transponder |
| E FMS Oceanic enroute terminal navigation and approach capability |
| F Same as E.; may not meet requirements for some approach and departure operations |
| G GPS |
| M TACAN only, no transponder |
| N TACAN only, transponder with no altitude encoder |
| P TACAN only, transponder with altitude encoder |
| T Transponder with no altitude encoder |
| U Transponder with altitude encoder |
| W RNAV, no transponder |
| X No transponder |</p>
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<tr>
<td>Tower 126.0</td>
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</table>

**Airspeeds (mph)**
- Rotate for takeoff – 50
- Climb out 100
- Maximum Flap Extend 110
- Best Angle of Climb sea level \(V_x\) 70
- Best Rate of Climb sea level \(V_y\) 88
- Best Glide 85
- Downwind 105
- Base 90
- Final (add ½ gust factor) 80
- Final (no flap) (add ½ gust factor) 85