

# Checklist: N822WY

## PRELIGHT INSPECTION

### CABIN

Certificates/Documents .....IN AIRCRAFT  
**A**irworthiness Certificate  
**R**egistration  
**R**adio Operators (International Flights Only)  
**O**perating Limitations / Airplane Flight Manual  
**W**eight & Balance  
Control Wheel Lock.....N/A (external locks)  
Ignition Switch .....OFF  
Master Switch .....ON  
Fuel Quantity Indicators .....CHECK QUANTITY  
Lights: Strobe/ Nav/ Landing/ Taxi.....CHECK OPERATION  
Flaps .....DOWN FOR INSPECTION  
\*\*For Night Operation: Lights .....CHECK  
Master Switch .....OFF  
Fuel Selector .....Left or Right (most full tank)

### TAIL SECTION

Tail Tie-Down / Rudder Gust Lock.....REMOVE  
Elevator & Rudder .....CHECK FREEDOM & SECURE  
Nav. Lights .....N/A (stobes on wing tips)  
Tail Wheel .....CHECK WEAR & HARDWARE  
Wheel Chocks .....REMOVE

### RIGHT WING

Flap Tracks & Actuator Rod.....CHECK  
Aileron .....CHECK FREEDOM & SECURE  
NAV Light .....UNBROKEN (**GREEN**)  
Fuel Quantity .....CHECK VISUALLY (use dip stick)  
Fuel Filler Cap .....SECURE  
Fuel Tank Vent Opening .....CHECK  
Wing Tie-down .....REMOVE  
Fuel Tank Sump Quick-Drain Valve .....DRAIN  
Main Wheel Tire.....CHECK WEAR & INFLATION (30 psi)  
Wheel Chocks .....REMOVE

### NOSE

Windshield .....CHECK CLEAN  
Engine Oil Dipstick.....CHECK (6-8 qt.)  
Air Inlets.....CHECK FREE OF FOREIGN MATTER  
Propeller & Spinner .....CHECK  
Static Port.....CHECK

### LEFT WING

Main Wheel Tire .....CHECK WEAR & INFLATION (30 psi)  
Fuel Tank Sump Quick-Drain Valve .....DRAIN  
Wing Tie-down .....REMOVE  
Fuel Quantity .....CHECK VISUALLY (use dip stick)  
Fuel Filler Cap .....SECURE  
Pitot Tube / Cover.....CHECK / REMOVE  
Fuel Tank Vent Opening .....CHECK  
NAV Light .....UNBROKEN (**RED**)  
Aileron .....CHECK FREEDOM & SECURE  
Flap Tracks & Actuator Rod.....CHECK

### BEFORE STARTING ENGINE

Chocks .....REMOVE  
Preflight Inspection ..... COMPLETE  
Passenger Briefing .....COMPLETE  
Seats, Seat Belts, Harness .....ADJUST & LOCK  
Brakes .....TEST & SET  
Avionics Master Switch off.....OFF  
Fuel Selector..... FULLEST TANK  
Tow Bar.....REMOVED

### STARTING ENGINE

Master Switch .....ON  
Alternator Field.....ON  
Fuel pump.....ON  
Ignition.....ON  
Mixture .....RICH  
Carburetor Heat .....COLD  
Prime .....(1-3 seconds) AS REQUIRED  
Throttle .....OPEN 1/8 inch  
Anti-collision / Strobe Lights.....CHECK OPERATION  
Propeller Area .....CLEAR  
Ignition Switch .....START  
Oil Pressure and Fuel Pressure .....CHECK  
Engine Warm-up.....THROTTLE 800-1200 RPM  
Fuel Pump .....OFF  
Mixture .....LEAN FOR TAXI

### BEFORE TAXI

AUX switch .....ON (Confirm G6 Alignment)  
Lights & Stobes .....AS REQUIRED  
Avionics Master: Radios .....ON-SET  
Transponder .....STANDBY  
Flaps .....UP  
Seats, Belts, Harnesses .....CHECK SECURE  
Brakes .....TEST

### BEFORE TAKEOFF

Seats, Belts, Harnesses .....CHECK SECURE  
Canopy side and top.....CLOSED & LOCKED  
Flight Controls .....FREE & CORRECT  
Fuel Selector ..... FULLEST TANK  
Elevator Trim .....SET FOR TAKEOFF (MIDDLE)  
Fuel Quantity .....CHECK  
Mixture .....RICH  
Throttle .....1700 RPM  
Magnetos .....CHECK (125 max drop / 50 max diff.)  
E-magneto check .....CHECK  
Carburetor Heat .....CHECK  
Engine Instruments & Ammeter .....CHECK  
Throttle .....CHECK IDLE LIMITS (850 RPM)  
Throttle Friction Lock .....ADJUST  
Flight Instruments .....CHECK & SET  
Radios .....SET  
Transponder .....ALTITUDE  
Wing Flaps .....SET for takeoff  
Lights .....AS DESIRED  
Brakes .....RELEASE

\*\*\* (Note time of departure for fuel purposes.)

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## TAKE OFF

### NORMAL TAKEOFF

Wing Flaps .....0 Degrees  
Carburetor Heat .....COLD  
Propeller Control.....Full  
Throttle.....FULL OPEN  
Climb Speed .....100 to 120 KTS

### ENROUTE CLIMB

Airspeed .....120-145 KTS  
Propeller.....2500 RPM  
Throttle .....25"  
Mixture .....RICH (until 3000 feet)

### CRUISE

Throttle .....24"  
Propeller.....2400 RPM  
Elevator Trim .....ADJUST  
Mixture .....LEAN

### DESCENT

Fuel Selector.....FULLEST TANK  
Mixture .....RICH  
Throttle .....20"  
Carburetor Heat .....AS REQUIRED

### BEFORE LANDING

Seats, Belts, Harnesses .....SECURE  
Fuel Selector.....FULLEST TANK  
Mixture .....RICH  
Carburetor Heat .....APPLY FULL HEAT  
Wing Flaps.....AS DESIRED  
Airspeed.....70-90 KTS (flaps up), 60-85 KTS(flaps down)

### BALKED LANDING (Go-Around)

Propeller.....FULL  
Throttle.....FULL  
Carburetor Heat.....COLD  
Wing Flaps.....RETRACT

## LANDING

### NORMAL LANDING

Airspeed .....70-80 KTS (flaps down)  
Wing Flaps.....Full down (below 85 KTS)  
Touchdown (Wheel landing).....MAINS FIRST  
Landing Roll .....LOWER TAIL WHEEL GENTLY  
Braking .....MINIMUM REQUIRED

### AFTER LANDING

Carburetor Heat .....COLD  
Lights .....AS REQUIRED  
\*\*\* (Note time of landing.)

### SHUTDOWN

Avionics Master .....OFF  
Alternator Field .....OFF  
NAV Lights.....OFF  
AUX.....OFF  
Throttle .....850 RPM  
Mixture .....IDLE CUT-OFF  
Ignition Switch .....OFF  
Master Switch .....OFF  
Control Lock .....INSTALL  
Hobbs.....RECORD  
Aircraft .....SECURE

## EMERGENCY PROCEDURES

### ENGINE FIRE DURING START

Starter.....CONTINUE TO CRANK ENGINE  
Throttle .....1700 RPM (if engine starts)  
If engine start is unsuccessful, continue cranking for 2 or 3 minutes with throttle full open.  
Mixture .....IDLE CUT-OFF  
Fuel Selector.....OFF  
Aircraft..... ABANDON IF FIRE CONTINUES  
Smother flames with fire extinguisher, seat cushion, blanket, or loose dirt. If practical, remove carburetor air filter if it's ablaze. Make a thorough inspection of fire damage, and repair or replace damaged components before conducting flight.

### ENGINE POWER LOSS DURING TAKE-OFF (Instructor Technique)

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) (Instructor Technique)

Airspeed .....80 KTS  
Fuel Pump.....ON  
Fuel Selector .....SWITCH TANKS\*  
Mixture .....RICH  
Carburetor Heat.....ON  
Engine Gauges.....CHECK FOR CAUSE  
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.

### EMERGENCY LANDING WITHOUT ENGINE POWER

Airspeed .....80 KTS  
Mixture .....CUT—OFF  
Fuel Selector.....OFF  
Ignition Key Switch .....OFF  
Seat belt and harness.....TIGHT  
Flaps.....AS REQUIRED WITHIN GLIDING DIST OF FIELD  
(Full Flaps Down).....70-85 KTS  
Master Switch .....OFF  
Canopy latches.....UNLACH PRIOR TO FINAL APPROACH  
Touchdown .....SLIGHTLY TAIL LOW(min. speed)  
Apply heavy braking while holding full up elevator.

### ELECTRICAL FIRE (smoke in cabin)

Master Switch.....OFF  
All Electrical Switches (except ignition).....OFF  
Vents / Windows.....OPEN TO VENT SMOKE Cabin  
Heat.....OFF  
Land as soon as Practical

### ENGINE FIRE IN FLIGHT

Mixture .....CUT—OFF  
Fuel Selector.....OFF  
Master Switch .....OFF  
Glide Establish.....120 KTS  
Cabin Heat.....OFF / CLOSED  
If fire is not extinguished, increase glide speed in an attempt to find an airspeed that will provide incombustible mixture.  
Magnetos Switch .....OFF  
Proceed with EMERGENCY LANDING w/o POWER procedure

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## Aircraft V-Speeds:

Vr: (Rotation Speed)-----	N/A
Vx: (Best angle of climb)-----	80 KTS
*short field no obstacle with 10 degrees of flaps-----	80 KTS
Vy: (Best rate of climb)-----	95 KTS
Va: (Maneuvering Speed)-----	120 KTS
Vfe: (Max flap extended speed)-----	85 KTS
Vno: (Max structural cruising speed)-----	180 KTS
Vne: (Never exceed speed)-----	220 KTS
Vs1: (Stall Speed (clean))-----	53 KTS
Vso: (Stall Speed (dirty))-----	48 KTS
Glide: (clean)-----	80 KTS

### Note:

- All Speeds are Gross Weight (1750 lbs.)
- Aerobatics Max Gross Weight (1375lbs.)

## Weight & Balance: Wheels

Max Gross Weight: 1750 lbs.  
Basic Empty Weight: 1033 lbs.  
Useful Load: 717 lbs. (Normal)  
Useful Load: 342 lbs. (Aerobatic)  
Moment: 75,103.4  
Center of Gravity: 69.8 in.

## Stations for Weight and Balance:

- Fuel: 70 in.
- Pilot and Passenger: 84.5 in
- Baggage area: 117 in. Max 100 lbs.)

**Allowable CG Range: 68.7 in. to 76.8 in.**

## Standard Fuel Loading:

38 Gallons: 228 lbs. (19 gal each side)