



TECNAM P92 EAGLET **Checklist**

[FLIGHT PLAN DESIGNATION IS “ECHO,” Comm Equipment is “V”, and Surveillance is “EB2”]

EMERGENCY CONTACT

The following are Chesapeake Sport Pilot's emergency contact telephone numbers. We ask that you call the numbers in the order listed. In addition, please continue down the phone list until you reach someone. Please do not assume a voice message left on one of the numbers will be immediately received.

Helen Woods (240) 620-8926
CSP Maintenance (410) 490-0802
Hannah Lagno (410) 490-0354
Dan Wroe (410) 991-5514
Bay Bridge Airport (410) 643-4364
Linda Steiner (410) 212-2951
Ted Bryant (CGE) (443) 521-4281

INFO:

Fuel

- Type: Swift 94, Avgas 100LL or Mogas 91 octane or higher
- Tank – two tanks, 11.9 gal (11.4 usable) each

Oil

- Aeroshell Sport Plus 4
- *(Do not use aviation oil)*
- Quantity – 3.2 qts

Coolant – 50/50 glycol/distilled water mix

V-Speeds and PERFORMANCE:

Vr – 48kts

Vx – 60kts (clean)

56 kts (15° of flaps)

Vy – 68 kts

Best Glide – 68 kts

Vne – 134 kts

Vno – 106 kts

Va – 93 kts

Vfe – 68kts

Vs₁ – 44 kts

Vso – 39 kts

Max cross wind – 15 kts

Max ceiling (gross) – 13,110 feet

Take-off run (gross) – 460 ft.

Take-off run (50ft @ gross) – 920 ft.

Landing run (gross) – 377 ft.

Landing run (50ft @ gross) – 915 ft.

Glide Ratio – 1:12.8 at 68kts

75% power, 2000' (5,200 rpm – 5.2 gph)

65% power 2000' (5,000 rpm – 4.8gph)

55% power 2000' (4,600 rpm – 4.0 gph)

Useful Loads – 15HV 535.7 lbs (398.3 lbs with full fuel)

Maneuvers:

Bank Maneuvers – 60° max – entering speed - 93kts

Lazy 8's – 93 kts

Chandelles – 93 kts

Intentional Spin – See limitations in the flight manual

Dual Instruction/Flight Briefing

Pilot in Command

During flights with two rated pilots, the pilots will decide before the flight as to which pilot will act as Pilot In Command for the flight.

Passenger Briefing

An appropriate passenger briefing will be given before the flight that covers the items in the STARTING area of the checklist.

Positive Transfer of Controls

During each flight, one person will be controlling the plane at all times. It is critical to know who this person is at all times. Use a three-way call back such as:

Person 1: "You have the controls"

Person 2: "I have the controls"

Person 1: "You have the controls"

Aborted Takeoff

If we should lose directional control of the plane, or if there is a problem with the engine, or if anything else unusual should happen, we will abort the takeoff roll by simultaneously retarding the throttle and applying full brakes.

In-Flight Emergency

During an in-flight emergency, the instructor will take control of the aircraft. Unless specified otherwise, the student will set the radio to 121.5 and the transponder to 7700. The student will also secure any loose equipment in the cockpit and his seatbelt prior to landing.

Engine Failure Immediately After Takeoff

If we should we lose the engine immediately after take-off the instructor will pitch DOWN for 68 knots and make shallow turns right or left.

The student should (as directed by the instructor):

Fuel Shutoff Valves: Both Off

Ignition: Off

Flaps: As directed

Master Switch: Off

Off runway 29 - prepare for ditching

Do NOT attempt to return to runway unless you have successfully practiced return to landing

Ditching

If we should have to ditch, instructor will fly the plane.

Student will set radio and transponder 121.5 and 7700 , remove his glasses, and tighten his seatbelt. Be prepared to open the door just prior to hitting the water!

Line Up and Wait (formerly Position and Hold)

Holding in the takeoff position on the runway at an uncontrolled field is not authorized.

Go-Arounds

A go around will be initiated if the approach does not look stable, the landing is in any way questionable, or the plane will land beyond the first 1/3 of the runway.

Propeller Safety

At no time will anyone enter or exit the aircraft while the engine is running. Before starting the engine, the student will call "**CLEAR**" and both the student and instructor will look for people in the way. The key will be removed from the starter after the flight and during the pre-starting checks if people should approach the plane.

USEFUL FREQUENCIES:

Emergency	121.5
Flight Service ("Leesburg Radio")	
(Open / Close Flight Plans)	122.2
"Potomac Approach" SFRA (PALEO Gate)	132.775
"Potomac Approach" (Flight Following)	124.55/119.7
"Patuxent Approach" (Flight Following)	127.95

PREFLIGHT INSPECTION:

- Preparation: remove control locks, tie down ropes, pitot tube cover, other plane protection items
- Roll plane back and forth to check all tires

Cabin:

- Master switch: ON
- AROWFF(airworthiness/registration/operating limitations/weight and balance/flight manual/flight training supplement): ONBOARD
- Weight and balance: CHECK
- Baggage area: check secure and to be sure nothing has fallen beneath seats
- Control locks: RELEASE
- Flight controls: CHECK
Check for freedom of movement and proper direction
- Hobbs: RECORD
- Fuel tank quantity levels: CHECK

WARNING

Fuel level indicated by the fuel quantity indicators (on the instrument panel) is only indicative. For flight safety, pilot should verify actual fuel quantity visually in tanks before takeoff.

- Parking brake: SET
- Ignition Switch: OFF
- Fuel Valves: BOTH ON
- Fuel pump: ON
Check for sound and fuel pressure indication
- Fuel pump: OFF
- Flaps: EXTEND and RETRACT to 15 degrees
Visually check that flaps are fully extended and instrument indication is correct.
- Trim: CHECK, then CENTERED
Activate control in both directions checking for travel limits and instrument indication.
- Landing Light: CHECK
- Navigation Lights: CHECK
- Strobe Lights: CHECK / Leave ON
- Master switch: OFF

Fuel Check

WARNING

- Drain fuel with aircraft parked on level surface**
- Left fuel filler cap: CHECK visually for desired fuel level and secure cap.
- Gascolator: DRAIN Check fuel for color, water, and contaminants. Make sure valve is closed and not leaking.
- Right side fuel filler cap: CHECK visually for desired fuel level and secure cap.

Left Wing

- Pitot tube: check that the pitot tube mounted on the left wing is unobstructed. Do not blow into pitot tube.
- Left leading edge, wing skin, and strut: CHECK
- Left tank vent: CHECK for obstructions
- Left aileron: CHECK for damage, freedom of movement (Do not touch trim tab)
- Left flap and hinges: CHECK security
- Left gear bolts: Grab gear strut and vigorously rock plane fore and aft checking gear attachment
- Left main landing gear: CHECK inflation 38 PSI, tire condition, alignment, brake condition, hydraulic leaks, and wheel bearing for damage .

Fuselage

- Antennas: Check

Tail:

- Horizontal tail and tab: CHECK for damage, freedom of movement, side-to-side wiggle
- Vertical tail and rudder: CHECK for damage, freedom of movement (do not move rudder unless nosewheel is lifted off the ground, do not touch trim tab)

Right Wing:

- Right gear bolts: Grab gear strut and vigorously rock plane fore and aft checking gear attachment
- Right main landing gear: CHECK inflation 38 PSI, tire condition, alignment, brake condition, hydraulic leaks, and wheel bearing for damage .
- Right flap and hinges: CHECK security
- Right aileron: CHECK for damage, freedom of movement
- Right tank vent: check for obstructions
- Right leading edge, wing skin, and strut: CHECK

Nose:

- Nose wheel strut and tire: CHECK inflation 32 PSI, tire condition, straightness of nose wheel forks, and wheel bearing.
- Static Ports: CHECK
- Propeller and spinner condition: CHECK for nicks and security
- Oil Cooler, Radiator, and Ram Air Intakes: CHECK
-

Engine:

- Foreign Objects/Leaks (oil/fuel/coolant lines):
CHECK
- Coolant Reservoir Level: CHECK
- Oil Level: CHECK, Cap Secure
- Carburetor Filters: CHECK
- Engine Mounts: CHECK
- Air Intake System: CHECK
- 8 Muffler Springs: CHECK
- All parts, hoses, wires secure: CHECK
- Engine Cowlings: CLOSE and LATCH
- Tow bar, chocks if any: REMOVE

Starting:

- Seat position and safety belts: ADJUST
- Parking brake: SET
- Seat: WIGGLE until pins lock

Passenger Briefing

- Seat Belt use**
- Door Release**
- Emergency Equipment**
- Motion Sickness**
- Sterile Cockpit**
- Propeller Safety**
- Cockpit Resource Management Briefing (CRM)**
- LSA Airworthiness Explanation**

- Strobe lights: ON
- Fuel valves: BOTH ON
- Master switch: ON
- Generator light: ON
- Aux. Alternator switch: ON
- Fuel quantity: CHECK

NOTE

Compare the fuel levels read by the fuel quantity indicators with the quantity present in the tanks.

- Throttle: IDLE
- Friction lock: ADJUST
- Choke: AS NEEDED
- Propeller area: "CLEAR"
- Ignition Switch: START
- Choke: OFF
- Oil pressure: CHECK

Shut engine down if oil pressure does not rise in 10 sec.

- Engine RPM: 2000-2500 RPM
- Avionics Master: ON
- Circuit Breakers: CHECK
- Instruments: CHECK
- Oil Pressure: CHECK
- Oil temperature: CHECK
- Cylinder head temp. CHECK
- Voltmeter: CHECK
- Ammeter: CHECK
- Fuel Pressure: CHECK

PRE-TAXI:

- Transponder (Check Code) ALT
- AWOS / ASOS / ATIS: OBTAIN
- Altimeter: SET
- Attitude Indicator: SET
- GPS: SET
- Radio: CHECK WITH UNICOM
- Briefing: Brief self or passenger on taxiways that will be used to reach the runway**

TAXI:

- Parking Brake: OFF
- Brakes: CHECK
- Ball: CHECK
- Gemini track matches GPS track

BEFORE TAKEOFF:

- Parking Brake: ON
- Oil Temp: At least 50° C
- Throttle: 4000 RPM
- Engine instruments: CHECK
 - Voltmeter: 13+Volts
 - Cylinder head temp.: 90° - 135° C
 - Oil temperature: 50°-110° C
 - Oil pressure: 2 - 5 bar
 - Fuel pressure: 0.15 – 0.40 bar
- Generator and Aux. Alternator lights: OFF
- Test ignition systems:
 - *Maximum RPM drop with only one ignition 300 rpm*
 - *Max difference between LEFT or RIGHT 120 rpm*
- Throttle: FULL IDLE (check for roughness)
- Throttle: 2000 RPM
- Flight controls: CHECK
- Seat belts: FASTENED
- Briefing: Brief self or passenger loss of engine contingencies (see front of checklist)**

HOLD SHORT LINE

- Flaps: T/O (15°)
- Fuel Pump: ON, Check Pressure
- Trim: CENTERED
- Strobe and Landing Lights: ON
- Transponder: ALT
- Doors: CLOSED
- Takeoff Brief: Complete**
- Pattern: CHECK
- Radio: CALL
- Parking brake: OFF

TAKE OFF:

- Taxi to line-up
- Mag Compass and DG: CHECK
- Throttle: FULL

NOTE

Static RPM is approximately 4900 rpm

- Engine instruments: CHECK
Airspeed indicator alive / RPM up - if not abort
- Vr (Rotation speed): ~ 48 KIAS

NOTE

Rotate to takeoff attitude and accelerate to a climb speed of 60 knots with 15° Flaps

- Flaps: RETRACT (Safely airborne/300 ft)
- Vy: 68 KIAS

CLIMB:

- Landing light: OFF
 - Fuel pump: OFF
 - Trim: ADJUST
- Cruise climb: 75 – 80 KNOTS

CRUISE:

- Throttle: SET (5100 minimum-5500 RPM Max to prevent fouling)
- DG: SET
- Engine instruments: CHECK
 - Voltmeter: 13+ Volts
 - Cylinder head temp.: 90° - 135 °C
 - Oil temperature: 90°-110 °C
 - Oil pressure: 2 - 5 bar
 - Fuel pressure: 0.15 – 0.40 bar

CAUTION

Normal position of the fuel selectors is both on. Check fuel balance and fuel pressure. If necessary, shut off the lower reading tank using the appropriate fuel shutoff valve. Check fuel pressure again.

BE SURE THAT ONE TANK IS FEEDING THE ENGINE AT ALL TIMES!

NOTE

Check fuel gauges frequently with one tank shut off to prevent fuel starvation.

PRE-MANEUVERS LIST:

- Clearing Turns
- Select emergency landing area
- Va – 93 KIAS

EXTENDED DESCENT:

- Minimum 3000 RPM
- Speed 65-75Kt
- Engine Instruments Monitor

LANDING:

Check safety belts tight

- Landing light: ON
- Fuel Valves: BOTH ON
- Fuel Pump: ON
- Brake: OFF / Check Pressure
- Flaps: AS DESIRED

GO-AROUND:

- Throttle: FULL POWER
- Pitch: Climb Attitude
- Flaps: Retract to 15 degrees - 60 kts
Above 300 feet:
- Flaps: Up, Climb Speed - 68 kts
- Trim: Adjust
- Maneuver to the non-pattern side of runway

AFTER LANDING:

- Clear Runway: RADIO CALL
- Landing Light: OFF
- Flaps: UP
- Fuel Pump: OFF
- Trim: CENTERED

PARKING:

- Parking Brake: ON
- Strobes: ON
- Other lights: OFF
- Flaps: UP
- Avionics Master: OFF
- Aux. Alternator switch: OFF
- Fuel Pump: OFF
- Ignition Switch: OFF
- Master switch: OFF
- One or Both Fuel Valves: OFF
- Hobbs - Record
- Trash - Remove
- Chocks : INSTALL
- Parking brake: OFF (for extended parking)**
- Pitot tube cover: INSTALL
- Control locks: INSTALL
- Aircraft: TIED DOWN
- Checklist in airplane
- Doors: CLOSED
- Key Returned to Box.

CLOSED PATTERN OPS CHECK LISTS

HOLD SHORT LINE

- Engine Instruments: CHECK
- Fuel quantity CHECK
- Trim: Centered
- Fuel Valves: BOTH ON
- Fuel Pump: ON
- Flaps: T/O (15°)
- Doors: CLOSED
- Takeoff Brief: REVIEW
- Pattern: CHECK
- Radio: CALL

CLIMB:

- Rotate 48 KIAS
- Accelerate 60 KIAS
- Flaps: RETRACT (300 ft)
- Establish Vy clean: 68 KIAS
- Trim: ADJUST

LANDING:

Check safety belts tight

- Fuel Valves: BOTH ON
- Fuel Pump: ON
- Brake: OFF / check pressure
- Flaps: AS DESIRED

AFTER LANDING:

- Clear Runway: RADIO CALL
- Flaps: UP
- Trim: CENTERED

EMERGENCY PROCEDURES:

ENGINE FIRE DURING START

- Continue Cranking with Starter
- Choke PUSH OFF
- Throttle FULL OPEN

If fire extinguished, shut down and inspect.

If Fire Persists:

- Fuel valves: OFF
- Electric fuel pump: OFF
- Ignition Switch: OFF
- Master switch: OFF
- Parking brake: SET
- Escape rapidly from the aircraft

ENGINE FAILURE DURING TAKEOFF RUN

- Throttle: IDLE
- Brakes: APPLY AS NEEDED

After stopped

- Ignition Switch: OFF
- Master switch: OFF
- Fuel selector valves: OFF

ENGINE FIRE DURING TAKEOFF RUN

- Throttle: IDLE
- Brakes: AS NEEDED

After stopped:

- Fuel Valves: OFF
- Electric fuel pump: OFF
- Cabin heating: OFF
- Ignition Switch: OFF
- Master switch: OFF
- Parking brake: SET
- Escape rapidly from the aircraft

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

- NOSE DOWN/Pitch for best glide 68 kts**
- Find a suitable place on the ground to land safely.
The landing should be planned straight ahead with only small changes in direction not exceeding 45° to the left or 45° to the right

- Flaps: AS REQUIRED
- Fuel selector valves: OFF
- Ignition Switch: OFF
- Master switch: OFF

ENGINE FAILURE IN FLIGHT

- Pitch for best glide speed: 68 KIAS
- Fuel Valves: BOTH ON
- Electric Fuel Pump: ON
- In-flight Engine re-start or forced landing

NOTE

Glide ratio is 12.8 therefore with 1000 ft of altitude; it is possible to cover ~2 nautical miles in zero wind conditions.

IN-FLIGHT ENGINE RESTART – IF TIME PERMITS

- Fuel Valves: BOTH ON
- Electric Fuel Pump: ON
- Throttle: MIDDLE POSITION
- Master Switch: ON
- Ignition switch: START, then both
- If the restart fails: Procedure for a Forced Landing Without Engine Power: APPLY
- If engine starts: Land as soon as possible.

FORCED LANDING WITHOUT ENGINE POWER

- Establish: 68 KIAS**
- Locate suitable terrain, land into wind**
- Radio / Transponder: 121.5 / 7700
- ELT: Activate near ground
- Fuel selector valves: OFF
- Electric fuel pump: OFF
- Ignition Switch: OFF
- Safety belts: TIGHTEN
- Doors: UNLATCHED
- Flaps: AS NECESSARY
- Master switch: OFF

DITCHING

- Seats belts: TIGHTEN
- MAYDAY 121.5 / 7700
- Flaps: FULL DOWN
- Fuel selector: BOTH OFF
- Electrical fuel pump: OFF
- Ignition: BOTH OFF
- Doors: PROP OPEN
- Master switch: OFF
- Ditch with nose high attitude

ENGINE FIRE IN-FLIGHT

- Cabin heat: OFF
- Fuel Valves: OFF
- Electric fuel pump: OFF
- Throttle: FULL IN until the engine stops running
- Cabin vents: OPEN
- Pitch for 130 KIAS to snuff out flames
- Employ slip to keep flames away from firewall

Do not attempt an in-flight restart

- Procedure for a Forced Landing Without Engine Power: APPLY

ELECTRICAL FIRE IN CABIN IN FLIGHT

- Aux Alternator: OFF
- Master switch: OFF
- Cabin vents: OPEN
- Emergency descent and Procedure for a Power-On Forced Landing.
- If flaps needed, Master switch: ON
- Flaps: AS REQUIRED
- Master switch: OFF

CABIN FIRE DURING FLIGHT

- Cabin heat: OFF
- Cabin vents: OPEN
- Doors: OPEN, if necessary
- Master switch: OFF
- Emergency descent and Procedure for a Power-On Forced Landing.
- If flaps needed, Master switch: ON
- Flaps: AS REQUIRED

- Master switch: OFF

POWER-ON FORCED LANDING

- Descent: ESTABLISH
- Airspeed: 68 KIAS
- Landing area: SELECT
- Safety belts: TIGHTEN
- Doors: UNLATCH

Landing assured:

- Flaps: AS REQUIRED
- Fuel selector valves: OFF
- Electric fuel pump: OFF
- Ignition Switch: OFF
- Master switch: OFF

IRREGULAR ENGINE RPM

- Throttle: CHECK
- Engine gauges: CHECK
- Fuel quantity indicators: CHECK
- Electric fuel pump: ON
- Fuel Valves: BOTH ON

If the engine continues to run irregularly, land as soon as possible.

LOW FUEL PRESSURE (below the 0.15 bar limit)

- Fuel quantity indicators: CHECK
- Electric fuel pump: ON
- Fuel Valves: BOTH ON

If the fuel pressure continues to be low, land as soon as possible.

LOW OIL PRESSURE

- Oil temperature: CHECK
- If oil temperature is stable within the green arc: LAND as soon as possible
- If oil temp is increasing: LAND as soon as possible and be alert for impending engine failure

AUX. ALTERNATOR LIGHT ON

- Reduce electrical load.
- Circuit Breakers: CHECK, reset one time

If Aux. Alternator light still on:

- Aux Alternator switch: OFF
- If Generator light is OFF: Continue flight using Generator.
- If Generator light is ON: Land as soon as possible.
Battery power is good for 20 minutes.

TRIM SYSTEM FAILURE

- In case the trim control should not respond, act as follows:
- LH/RH switch: CHECK for correct position
- Circuit breakers: CHECK, reset one time
- Airspeed: Adjust speed to control aircraft without excessive stick force
- Land aircraft as soon as possible, flaps up.

Note: If trim should fail in cruise position, deploying flaps after slowing the plane may reduce trim pressure for landing.

LANDING WITH A FLAT TIRE

- Apply rudder and brakes to stay on runway
- Make radio call to UNICOM and inbound traffic about closed runway
- Push plane off runway

UNINTENTIONAL FLIGHT INTO ICING CONDITIONS

- Get away from icing conditions by changing altitude or direction of flight in order to reach an area with warmer external temperature.
- Increase rpm to avoid ice formation on propeller blades.
- Cabin heat: ON
- Land as soon as practical
- Do NOT use flaps

WARNING

In case of ice formation on wing leading edge, stall speed may increase.

NOTE

It may be necessary to slip the plane on landing to see out.

RECOVERY FROM UNINTENTIONAL SPIN

- Reduce the power to idle
- Position the ailerons to neutral
- Apply full opposite rudder against the rotation
- Apply positive, brisk, forward stick (forward of neutral) to break stall.
- After spin rotation stops, neutralize the rudder.
- Begin applying back-elevator pressure to raise the nose to level flight.

LOST PROCEDURES

- Climb and Circle to better see prominent landmarks
- Conserve fuel
- Communicate with ATC (121.5)
- Comply with ATC instructions