



Pilatus B4 Pilot Briefing

Pilot Name:

The Pilatus B4 is a 15-meter Standard Class Sailplane. This ship is a dream to fly. It also has some flight characteristics you need to be aware of. This document will give you an idea of what to expect from this fantastic aircraft.

The basics you've learned while flying the 2-33, 1-26 and the Blanik will serve you well in any glider you fly in the future. However, outside of the basics, the Pilatus doesn't fly like any of the gliders mentioned previously due to differing configuration and improved performance. A good correlation is the 2-33 is like driving the family station wagon - exciting because it was what you learned in, but not much in the way of handling or performance. The 1-26 is like an MG Midget - better handling and lots of fun to zip around in, but again, not much in the way of performance. The Pilatus is like a Corvette - sleek and probably your first taste of what performance is all about. Maybe someday you'll decide you're ready for a glass ship - the Ferrari (but that's a discussion for another time).

How can a pilot not accustomed to flying high performance gliders safely transition to the Pilatus? The flight instructor is the key to this operation - and a checkout by a qualified LESC CFIG is required prior to your first flight in any LESC glider. Several dual flights in the Blanik L-13 may be required for a signoff. The following notes will also be helpful and should be digested by the aspiring Pilatus pilot before the actual check out session with their instructor. The experience required to fly LESC's Pilatus (and all of LESC's gliders for that matter) is described in the [LESC Standard Operating Procedures](#).

Obtain a copy of the [Flight / Operating Manual for the Pilatus B4](#). Memorize the airspeeds for minimum sink and best glide. Consider proper approach speeds for varying surface winds and turbulence.

There are several features of the Pilatus that are very different from other sailplanes you've been flying. One of the more obvious is noticed as you walk up to the glider - it has a "T" tail. "T" tail aircraft have different handling and performance characteristics than and aircraft with a conventional tail configuration (more on this later).

Another obvious characteristic is that the Pilatus, like the Blanik L-13, sits on the tail and has no skid. Nothing new here for those familiar with the Blanik (which you should have used for your Pilatus checkout), just something to be aware of.

The Pilatus has a fully retractable main gear. The Blanik has a semi-retractable gear which is more forgiving of gear up landings. The Tost tow hitch is also located inside the wheel well. This means the gear must be down as long as you are on tow. Speaking of the tow hitch, the Tost hook requires the use of the small, oval shaped, Tost ring. Make sure your line personnel are aware, and that you visually inspect this ring (and the Schweizer ring it's attached to) for cracks and bends prior to hook up.

Next is the preflight inspection. If possible, do a dry run on this before your actual check out with your instructor. The [LESC B4 Checklist](#) will show you what to check and your instructor will cover the preflight in detail. Since the Pilatus is a fully aerobatic aircraft, it's

quite possible that the pilot before you may have over stressed the airframe. Pay particular attention to any wrinkles, dents or tears in the skin. Look for loose or popped rivets. Check to make sure that the control surfaces haven't been "slammed around". At this time be sure you understand the center of gravity and gross weight limitations of your particular glider. If you are a light weight you may need seat ballast under your cushion, or should you be a heavy weight see if seat ballast was removed after a previous flight. Also check for the presence of ballast in the factory ballast location on the empennage.

When preflighting the cockpit, take a look at the G-Meter. This can be a good "heads up" if the aircraft was exposed to high G loading. Observe the control layout. Find a comfortable position and see if you can easily reach and operate all the controls. The rudder pedals are adjustable. You should be able to get full rudder travel without full leg extension. See if you can easily reach the spoiler and gear handles as well as the release knob. Notice that the wheel brake is actuated by a separate lever on the spoiler handle.

Because of the high empty weight ground handling is best accomplished with at least two people. **Never pull the Pilatus by the wingtips!** Moving the glider is best accomplished by pushing the glider behind the wings, in the center of the fuselage, or with the use of a tow vehicle. **Lift the tail when turning the glider. Never lift the tail using any part of the airframe. Lift the tail using only the ground handling handle on the empennage!**

What are the differences in flying a Pilatus compared to a 2-33 or 1-26 and how does the pilot cope with these differences? First, you will notice the limited pitch attitude changes that are possible while rolling on the ground. While seated in the glider the nose of the glider will be higher than is required for normal flight. This means that as the takeoff progresses you will need to add forward stick pressure to get the tail to lift up to a normal flying attitude. The visual picture may be a little unnerving at first, looking as though the nose is pointed down, but that is the attitude need to maintain proper position behind the tow plane.

The trim is quite effective and the Pilatus can be trimmed such that the glider can be flown on tow with only your fingers instead of having to apply constant forward stick pressure as in the 2-33 or 1-26.

The increased overall weight of the Pilatus means longer takeoffs and rollout after touch down. Nothing new to learn here, just something to be aware of.

For your first flight it is suggested that you tow to at least 3000 feet. Even in no lift conditions this will give you time to fly all your training maneuvers and feel at ease. Particularly practice stalls with the gear both up and down. The spoilers are quite effective and cause the nose to pitch down. Perform stalls with and without spoilers. Become familiar with the spoilers before it's time to land (more on this later). Practice slow flight, imminent stalls and some steep turns. As mentioned earlier, "T" tail aircraft have some characteristics all their own. One you'll notice is less buffeting when approaching a stall, and a more pronounced break when the stall occurs. Concentrate on coordination. Time to land so soon?

Make sure the gear is down and locked. The use of your pre-landing checklist will prevent a gear up landing. Simply fly the pattern in the same way you would for this wind condition

when flying in a 1-26. As mentioned above, the Pilatus' spoilers are quite effective and also pitch the nose down. This can produce problems if the spoilers retracted quickly, especially close to the ground. Maintain your final approach speed until time to level off for landing. It's desirable to have the tail wheel touch down an instant before the main wheel. This will help provide directional control on the ground. Once on the ground, fully deploy the spoilers to keep from becoming airborne again. Now it's time for the wheel brake. **Remember, this aircraft doesn't have a skid!** The wheel brake on the Pilatus is notoriously ineffective! Don't rely on it! Plan your landing with enough rollout room even if the brake fails completely.

Now for some final thoughts on safety. All aircraft have different flying characteristics but all respond similarly to the basics. Remember you are flying a Pilatus not a 2-33 or 1-26. You will find much lighter and more responsive controls. Keep a light touch and fly by nose attitude relative to the horizon. Fly coordinated. The Pilatus will spin readily. Even though the Pilatus is certified for aerobatics, such flight isn't approved in any LESC aircraft without proper aerobatic instruction and sign off by an LESC approved CFGI. In all your flying, plan ahead and think safety.

HAVE FUN!

List the appropriate performance limitations and speeds (in KTS)

- Stall speed:
- Minimum sink speed:
- Pattern speed:
- Vne, dive brakes closed:
- Vne, dive brakes open:
- Minimum Sink speed:
- Best L/D speed:
- Best L/D:
- Sink rate (FPM) @ best L/D:
- Maximum gross weight:
- Maximum pilot weight:
- Minimum pilot weight:
- Maximum positive load factor:
- Maximum negative load factor: