The Soul of A Fighter

THE NEW SLING LSA FROM SOUTH AFRICA HAS THE WORLD ON A STRING

BY MARC C. LEE

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SPECIFICATIONS

Base price: $125,000
Engine make/model: Rotax 912 ULS
Propeller: Warp Drive, 70-inch three-blade composite
Gross weight (lbs.): 1320
Empty weight (lbs.): 796
Useful load (lbs.): 524
Usable fuel (gals.): 38.6
Fuel type: 91 OCT auto gas or 100LL avgas
Payload full fuel (lbs.): 286
Wingspan (ft.): 30
Overall length (ft.): 22.89
Overall height (ft.): 8.2
Cabin width (in.): 44
Wing area (sq. ft.): 127.5
Wing loading (lbs./sq. ft.): 12.10

PERFORMANCE

Cruise speed (kts.): 109
Fuel consumption, max (gph): 4.5
Cruise speed, 75% (kts.): 95
Fuel consumption, 75% (gph): 3.5
Best rate of climb, SL (fpm): 800
V_S (kts.): 45
Service ceiling (ft.): 12,000

Sliding the bubble canopy forward with a satisfying "thunk," I looked at the panorama around me—I could see our island destination in the distance—and took in the smell of fresh leather. The stick felt like an old friend, and the MGL Avionics EFIS fired up to the "Engine Start" checklist. A flip of a couple of toggle switches and a twist of the key, and the engine sprang to life like an eager student on the first day of school. This miniature fighter plane was ready for adventure, and my copilot conveyed an enthusiastic, "Excellent!" as we taxied out.

"Excellent" is a word that a lot of people are using when it comes to this aircraft. Meet the Sling, a brand-new light-sport aircraft (LSA) that has been turning heads since 2006 when Mike Blyth and James Pitman began developing it in Johannesburg, South Africa. Blyth was an early pioneer of microlight flying in South Africa, and had already designed and built several aircraft. He set out to build a stronger, better-flying full-sized aircraft, so he formed a company—The Airplane Factory—to do it. Completed from concept to certification in a miraculous three years, the Sling is the result of Blyth and Pitman's voracious appetite for adventure and for what they term "bringing the spirit of aviation to the masses."

My copilot this day was Matt Liknaitzky, president of The Airplane Factory, the sole U.S. Dealer of the Sling, based out of Torrance airport in Southern California—famed pilot Bob Hoover's home airport. This fact is significant because of the pioneering spirit the entire Sling crew—from designers to dealers—brings to this design. A truly fresh aircraft, this little tiger really is different.

Liknaitzky met me at John Wayne Airport in Orange County to shake out the Sling and introduce me to its charms. It was imperative that we take advantage of textbook-perfect California skies, so we launched for the idyllic paradise that is Catalina Island, just 30 miles off the gold-coast beaches that lie directly below the departure path at John Wayne. John Wayne, the actor, lived on those same beaches and hated the noise from departing jets. He fought the airport for years, yet they named it after him. I was considering that irony as we winged our way over Balboa Bay toward the "Airport in the Sky," as it's known. All that ocean would give me plenty of time to get a feel for the sleek Sling.

The big news is that the Sling (officially called the "Sling 2" for "2-place") just received its official S-LSA Airworthiness certificate in the U. S. (though it's been selling around the world since 2009). The certification makes the Sling 2 the 125th certified LSA available in the U.S. Those of us who remember aviation in the stagnant early '80s when there were no new airplanes around can hardly fathom 125 LSA out there to choose from—like some crazed, self-service Las Vegas buffet. And the Sling has been famously successful; more than 60 airplanes have been delivered worldwide, with orders to date surpassing 100. In addition to the factory-built certified models, the Sling LSA will be available as an E-LSA (and an experimental amateur-built) kit. The factory at Tedderfield Airpark in the Gauteng Province of South Africa employs 75 people and turns out five Slings per month in a ready-to-fly state, and even more kits. With those kinds of numbers, the Sling's success in the U.S. looks better than promising.

There's so much different about the Sling

Matt Liknaitzky and Marc Lee demo the Sling 2 over Southern California's coastline.

Marc Lee

A sliding bubble canopy on the Sling LSA offers excellent visibility when airborne. The cockpit features center control sticks and an MGL avionics system with two EFIS displays.

Marc Lee

that it's hard to know where to begin. The first thing most people notice is that the airplane doesn't look like an LSA. To me, a lot of LSA look spindly and not very substantive. They betray the ultralight roots they came from. But, the Sling looks decidedly formidable, probably due to its construction. The Sling is a stressed-skin, semi-monocoque aircraft, made to ASTM standards from tempered 6061-T6 aluminum punched precisely using CNC machines. The end result is that it's made like a "real" airplane, and it looks agile but not dainty.

The real magic of the Sling comes from flying it. Easily, the Sling's most impressive quality is its maneuverability and handling. The controls are an extension of your mind, with only the slightest finger pressure necessary to execute the maneuver in your head. But it's not twitchy or too light—an ailment some highly maneuverable aircraft and LSA suffer from. The Sling is a superbly balanced aircraft, and would be considered a "pilot's airplane" if that term hadn't been worn to dust by marketing people for airplanes that don't come close. The Sling inspires you to fly it.

To that end, Liknaitzky tells me that Blyth and his engineers spent an extra year perfecting the handling qualities of the airplane. These guys are either airplane geeks or true geniuses to spend that kind of sweat and money getting the feel just right, but they've succeeded masterfully. The direct-linkage ailerons contribute to the positive feel of the controls, while small winglets provide longitudinal stability and better control in turbulence.

There, above the sparkling-blue Pacific Ocean, the second of the Sling's ample charms became evident: its visibility. First, the "cool factor" of a sliding bubble canopy just can't be beat. It's what we all imagined as kids when we played "airplane," and no door, hatch or window will ever come close to the cachet of a sliding canopy. The Sling's canopy brings to mind the Grumman Tiger of old, albeit with modern design and performance. The view from under the clear bubble is breathtaking, though it gets hot quickly under a direct sun, which California is famous for. Liknaitzky said a type of curtain was being considered for production aircraft. It definitely needs it.

The Sling 2 is powered by the Rotax 912 ULS engine—a high-revving sewing machine of a motor with a smooth power curve, rated just under 100 hp. The Rotax is certified for 5800 rpm for a maximum of five minutes, after which cruise power can be set anywhere between 4,800 and 5,500 rpm, yielding a respectable 110 knots. The Warp Drive three-bladed composite prop gave us about 800 fpm climb on a warm SoCal day. The Sling's landing gear is made of composites, and she comes with the option of an airframe parachute system—a nice touch for an LSA.

Another of the Sling's big draws is its lack of thirst. At cruise, the Sling sips fuel at 4.5 gph, so with 38.6 usable gallons of fuel on board, seven hours' flying time and 800 nm is realistic, if your bladder can hold out that long. Its useful load of 524 pounds means you can carry 293 pounds of people and baggage on a full fuel load or play with different configurations of fuel and payload to meet your mission.

Adventurers at heart, Sling company founders Blyth and Pitman wanted to prove to the world that their design wasn't only fun to fly and useful, but that it was a robust cross-country machine worthy of comparison with any standard category GA airplane. In July of 2009, the two intrepid pilots set out to fly the first prototype Sling 2 around the globe. They did just that, flying for 40 days and 40 nights, and passing through Oshkosh as if to rub in the fact that this airplane is something to contend with. The Sling performed flawlessly, with the only modification being four plastic fuel cans they propped up in the baggage area with some plastic tubing and a pump to feed the standard tanks as they emptied. The airplane had two additional wing tanks, with 50 gallons per side. Blyth and Pitman flew 2,000-nm legs

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over the world's oceans, deserts and mountains, circumnavigating the globe in the Sling.

In April of last year, the Sling team presented their "5577" project. The brilliant scheme had a team of five men and five women build a Sling from a kit in seven days, then fly it to Poland from South Africa in seven days to deliver it to its new owner. The idea was to prove to the world that relatively inexperienced people could put this aircraft together in an unheard-of short time. The project was a huge success, drawing fans to the Aircraft Factory website to watch the build progress and subsequent odyssey to Poland.

As if the company had anything left to prove, they developed a four-seat version of the Sling, calling it the "Sling 4," and flew it around the globe in July of 2011. This time Blyth and Pitman added Director and Production manager, Jean d'Assonville, who's an

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In place of toe or heel brakes, the Sling employs a lever on the quadrant next to the throttle.

aeronautical engineer, designer, and pilot. Once again, the flight went famously, concluding with an arduous, non-stop leg from Brazil to Cape Town. The team had proven that the Sling handles just about anything.

As we continued our over-water jaunt to Catalina, Matt Liknaitzky had me try some maneuvers to showcase the Sling's handling qualities. Also from South Africa, Liknaitzky has a ready smile and uses the word "excellent" in various capacities. I like him instantly since he's a confirmed stick-and-rudder guy like me and owns his own Christen Eagle biplane that he uses for aerobatic competitions. We were enjoying all the sights and sensations that come with flying as he explained the plan for the Sling in the U.S. market.

"We plan to take the Aircraft Factory concept and expand it at Torrance Airport," explained Liknaitzky. "We plan on offering training, dealer support and, eventually, an entire assembly facility where we assemble the airplanes." The reaction to the Sling, says Liknaitzky, has been overwhelmingly positive. "People just love how it flies," he enthuses. I agree completely.

The Sling has some quirks that stamp it as definitely not an American design. These oddities give the airplane personality, though they take some getting used to. I didn't like the flap switch. It's just a plain toggle switch that you have to hold up or down while either watching a diminutive graphic on the MGL Avionics display, or by craning your neck to look at the flaps themselves. A redesign might be just the ticket.

The Sling doesn't have toe—or heel—brakes. Instead, there's a lever on the quadrant next to the throttle. It takes some getting used to, though I have to admit I was accustomed to it by the time we landed back at John Wayne. I still found myself trying to press on the top of the pedals just like a car passenger pushing on what I call the "chicken brake" when they feel nervous.

The MGL Avionics EFIS was nice to work with. It, too, takes some getting used to, but the two EFIS displays contain all the information you need for situational awareness and navigation. It combines a PFD, MFD, engine monitor, fuel computer, GPS navigator, an autopilot and an interface for a multitude of other devices.

Plane & Pilot editor Jessica Ambats laughed a bit when I gave her my reaction to the Sling. "Your favorite airplane is always the one you just flew!" she jibed. She had a point, but I realized that we live in a time when new aircraft designs are fantastic when compared to the stuff coming off the line back in the heyday of GA aircraft production after WWII. Today's aircraft are difficult to not like, though each has its own personality and allure. Still, this time was different. The Sling got to me more than any aircraft I've flown in the past several years. In fact, I contacted Liknaitzky just hours after our flight, asking him about the availability of the Sling for rental. Like an addict, I couldn't wait to get my Sling fix.

Proof of its appeal comes in the form of the Facebook groups, fan sites and blogs dedicated to the airplane. To say it puts "fun" into flying is a sort of neutered expression, because the word is applied to everything. People say running is "fun," and I can't stand it. So I'll just say that flying the Sling gives you an enormous feeling of pleasure and satisfaction. Its handling gets your heart racing with possibilities, while its capability and strength make it a practical airplane for "real" missions, like circumnavigating the globe with your best flying companion. I loved the airplane; no apologies needed.

For more details about the Sling LSA, visit www.theairplanefactory.com. P&P

planeandpilotmag.com

In addition to sending letters and emails, you can also comment on *P&P* articles at planeandpilotmag.com.