

Sirius Contender

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“I will show you how this aircraft glides,” said Jiri casually, as he reached up and turned off the ignition switches to the Rotax 912ULS engine, bringing the three-bladed Duc propeller to a shuddering halt. He really meant “glide”!

Now to an old, not-so-bold ex-airline pilot like me, a stopped prop in a single-engine aircraft is the stuff of bad dreams, but Jiri believes in realism and, later, told me that as an instructor, I should see what limits the Sirius can fly to. We were just a couple of miles from the 8,000-foot runway 34 at his base of five years—Hradec Kralove, an ex-Czech Air Force Sukhoi base 120 kilometres east of Prague. With a 16-knot easterly crosswind blowing, we could easily have landed across its 200-foot width! The glide demonstration was impressive, as was the 40-degree steep sideslip followed by a very gentle 30-knot touchdown with full flap. It was obvious that Jiri got plenty of crosswind practice—something he confirmed when he told me there was always a stiff east or west wind blowing. Jiri then re-started the engine during the rollout from his landing and took off again. On the next approach, he demonstrated the aircraft’s ability to make an autocoupled GPS approach, which he continued to about 100 feet before landing. What a pity this category of aircraft is unlikely ever to be certified for IFR flight!

I had travelled to the TL-Ultralight factory to carry out acceptance flights on two new Sirius aircraft ordered by our company, Sport Aircraft Ltd, and then check on their loading into a 40-foot container for shipping out of Hamburg for New Zealand. For me, it was as much an educational as

Right: The Sirius TL-3000 in New Zealand livery upon delivery at Hradec Kralove.

Below, left to right: A proposed float-plane version; The accessibility of the lightweight (a two-man lift) Rotax ULS engine is evident here; The two Sirius aircraft fitted into a 40-foot container back to back—the undercarriage, seemingly by design.



a quality control exercise. In fact, with March morning temperatures down to minus 11°C and no ski slopes nearby, I took a lot of persuading to make the trip! My two co-directors, John O’Hara and Phil Southerden, had visited the factory in October and been bowled over by the outstanding quality of the organisation and the aircraft. Following demonstration flights, we ordered two—one for sale and one for us to demonstrate around New Zealand. It is our collective belief, bolstered by my trials in both the Sirius and the Sting, that the Sirius is a perfect trainer for New Zealand conditions, as well as being a very comfortable two-place tourer with a safe range of 800 nautical miles at a cruise speed of 115 knots.

The Czech Republic has long been known for its aircraft manufacturing abilities and expertise, and TL-Ultralight is just one of a number of Czech companies (others include Evektor, Zenair, Aerospool and Czech Sport Aircraft) that are now producing world-class microlights. TL-Ultralight has built over 500 composite



Above, left: Attractive side profile of the Sirius. Above, middle: Foolproof fuel and flap controls on the centre console. Above, right: The Dynon 100 EFIS and Garmin 695 GPS fitted to ZK-SPR.

microlight aircraft and LSA certification is now complete for its current models. My visit gave me a chance to see the factory processes first-hand and the Sirius in various stages of build. During my visit, I also spent valuable time with the test pilot and design engineers involved with the Sirius, which familiarised me with it far better than I could by type-rating myself!

As an aside, on the subject of Czech aviation history, it is worth getting hold of a magnificent Czech film of 2001, *Dark Blue World*, which tells the story of a group of pilots who escaped occupied Czechoslovakia in WWII to fly with the RAF. After an “apprenticeship”, which included rehearsing formation flying on bicycles, these Czech pilots were allowed to exercise their considerable bravado and skill in the Battle of Britain. The Hurricane flying sequences are real—no models involved—and are quite breathtaking. Unfortunately, the exiles returned at a bad time in their history and many were imprisoned by the new Communist

government, which feared their independent spirit. I am always surprised at the number of aviation types who do not know of this film, which—in my view—is a landmark of wartime cinema.

Full test flights will be carried out when the aircraft are reassembled at home in New Zealand, but during the short flights in ZK-SUS and ZK-SPR with George Tlustý, I was able to confirm the very nice handling characteristics of this well-designed all-carbon high-wing LSA/microlight. For example, for an approach configuration stall, George called a confidence-boosting “23 knots” and I was not surprised to lose less than 50’ with nary a hint of a wing-drop. (George is the father of the company president Jiri, and a retired Czech Airlines TU 134 captain. In addition, as I found out later, until last year, he was also a member of the famous “Flying Bulls”—the Red Bull aerobatic team!)

We had chosen to install the Dynon 100 series EFIS, the Garmin 695 GPS and the Greenline EMS in our aircraft. These were all new

Above and right: The Sirius and the frozen author on delivery day (it was minus 10°C, despite the sun).

to me and, although mostly intuitive, they required some creative thinking and analysis. Digital speed, altitude and engine parameter readouts enable accurate handling and easy precise monitoring. For example, the engine is warm enough for run-up when the bar turns green, thus eliminating the need to guess when the needle is off the stops. The EFIS has the added advantage of being wired for the add-on of an inexpensive autopilot.

The doors on the aircraft open smoothly upwards on pneumatic struts and allow easy access for those with not-so-flexible hip joints. The comfort of the fabric seats is excellent, and I was immediately struck by the width (greater than a C172) and space in the cabin, unlike the cramped elbow-bumping confines of other micros in which I instruct.

It is worth mentioning the rather unique (for a microlight) and intuitive electric flap system, which requires minimal attention. If manual is selected, the flaps can be set anywhere within their 0–45° range. However, in the (normal) “Auto” setting, one “blip” of the selector lowers first stage (takeoff) flap of 10.5°, the next blip gives the second stage and the full flap setting of 45° is selected by a third blip. To raise the flaps after landing simply requires three up-blips of the selector. This system promotes minimum “head-in-cockpit” time.

My first landing in SPR was with the wind at 070/19 on RWY34... work it out! “No problem,” said George, showing surprising naivety and misplaced trust. However, the Sirius behaved forgivingly, surprising me with its degree of controllability at slow speed and achieving an acceptable, if firm, touchdown; the next attempt in SUS was marginally better. At least these landings gave me confidence in the aircraft’s ability to handle in the frequent crosswinds around New Zealand.

The trip reinforced to me how benign our aviation environment is in New Zealand. In the Hradec area, the ceiling for light aircraft is 2,000 feet (just 1,300 feet agl), as there is a large military area above that—hardly a good height for “upper air work”! During his introduction, John was somewhat surprised when Jiri demonstrated a stall at 700 feet agl. However, as the cloud-base rarely gets above 1,000 feet in winter, one is forced to work outside the square! The day

after I flew with him, Jiri took off in his demonstrator in very cold, moist air and, in his words, “My windscreen turned white at 200 feet and I could not see!” He landed virtually blind, looking out of the side window. An iced-up windscreen for landing is a rare occurrence here. Of course, Jiri could have pulled the red handle and deployed the aircraft’s ballistic parachute and floated gently to earth. A ballistic parachute is standard equipment on the Sirius and can be activated down to 300 feet and at speeds of 130 knots or less.

The two Sirius aircraft arrived in New Zealand in early May and were flying a week later. ZK-SUS has already been sold. It will have a registration change and will go to a new home as an LSA. We are looking forward to flying SPR around New Zealand to show off its qualities to aero clubs, private owners and gliding clubs (the aircraft is fitted with a glider tow hook). At the moment, Sport Aircraft Ltd is busy arranging demonstration visits to give pilots and instructors the opportunity to fly the Sirius from the left seat with a microlight instructor.

Sport Aircraft Ltd has two more aircraft on order. With recent Czech price increases, the Sirius will cost \$205,000 before July 1st and \$225k after that, GST inclusive (unless the Euro continues to plunge!). The company is also putting together packages that will allow aero clubs (which, traditionally, are not cash-rich) to lease the aircraft on an hourly contract basis, and Sport Aircraft Ltd will arrange finance.

Pacific Wings will be publishing a pilot report after flying the Sirius in the near future. Until then, readers interested in further details about the Sirius can contact the author at operations@sportaircraft.co.nz **PW**

Below: 1. A horizontal windsock at right angles to Rwy 34. 2. An old Sukhoi hangar. 3 & 5. An abandoned and unguarded military museum. 4. Russian bunker design? Note the attempt at architectural beautification! 6. Hradec still has a 1960s military feel but the manned control tower talks to perhaps 10 movements a day...in Czech only.

