

The Atlantic Crossing: The flight of a lifetime in a Socata TBM 850

Story by Jeff Berlin

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The feeling of supreme satisfaction was overwhelming as we hopped from the TBM onto Canadian soil. Now I was north of New York—way north, but on the same continent. I had done it. I had crossed the Atlantic.

In 1908, Orville Wright said, "No flying machine will ever fly from New York to Paris." Of course we know now that Charles Lindbergh proved him wrong a scant 19 years later. Lindbergh's was an unbelievable achievement, and for some pilots the allure of an Atlantic crossing is still an irresistible siren's call. Nevertheless, crossing "The Pond" on one's own is not to be taken lightly, especially in a single-engine aircraft, and Socata's new TBM 850 turboprop is one of the very few singles I'd even consider for such a voyage. Indeed the flight I'm about to take is no ordinary run for the hundred-dollar hamburger; it's more like the \$5,000 run for foie gras and filet mignon.

Back in 1933 Juan Trippe of Pan American Airways contracted Charles Lindbergh to survey the North Atlantic for viable air routes and promote air travel. From Bowery Bay, next to LaGuardia Airport's art deco Marine Air Terminal, he and Anne Morrow Lindbergh took off in a Lockheed Sirius on an odyssey that took them to the coast of Labrador and then to Greenland, Iceland, and beyond.

Of this trip Lindbergh wrote in a letter to Trippe, "Planes used on a northern transatlantic route must have reliability, plenty of range, and high speed. It is essential to eliminate the possibility of forced landings due to engine failure. A great deal of flying would have to be done over low fog covering rough ice and probably over storm areas. . . . I believe that a northern transatlantic regular service should not be contemplated with planes that are not capable of flying nonstop from the western side of the Greenland ice cap to Iceland if necessary."

It almost sound like he's describing a TBM. Soon I'll be heading down to Tarbes, near the border of Spain, and visit with EADS Socata, where I'll see how they build the new, six-seat TBM 850, their answer to the VLJ. And then with Socata's chief test pilot, Christian Briand, I'll fly one back to New York. Talk about anticipation. Indeed, I can't wait for this "flight of passage," though the concept of delayed gratification has also never been this pleasurable since I'll spend a week in Paris enjoying great food, world-class shopping, and culture anywhere.

Ernest Hemingway once said, “If you are lucky enough to have lived in Paris as a young man, then wherever you go for the rest of your life it stays with you, for Paris is a movable feast.” How true. As I take my *café* at the Café de Flore on Paris’ Left Bank, I’m reminded just how transformative it really is to spend time here. I often crave Paris like one craves a bite of *chocolat noir*, for not only is Paris delectable and sublime, but it also gets under your skin, taps into your psyche, and becomes part of you—Paris etches an indelible impression on all who visit.

I was staying near the café in a small boutique hotel, The Esprit Saint-Germain, at 22 Rue Saint Sulpice, in the sixth arrondissement. With only 31 rooms, it’s located in the heart of fashionable Saint Germain des Prés. The hotel likes to call itself “your home on the Left Bank,” and that’s how it feels. The rooms, accessorized with earthy-hued fabrics and contemporary furniture, overlook the buzz of Parisians promenading past the austere facade of the hotel’s 18th-century structure. And the street-level lounge, tastefully done in subdued tones, features a full open bar and fashion, style, and news magazines scattered about. It was as inviting as kitchens are during house parties

In Paris one just becomes Parisian. Paris is like New York in that it’s a terrific walking city, and that’s how it should be seen. Paris makes me want to bound from bed in the morning and hop across the street to the *boulangerie*, or bread shop, to pick up a *demi-baguette* for a *tartine*. On a chilly autumn or winter day, I might pop into Angelina at 222 rue de Rivoli for the best *chocolat chaud* on the Right Bank. And on a Sunday afternoon while strolling around the Marais, I usually stop for tea and *patisserie* at one of Paris’ most famous tea shops, Mariage Frères (30, rue du Bourg-Tibourg, 4e). On the evening of my arrival in Paris, I can usually be found at one of two of my favorite restaurants, either Le Relais de L’Entrecote (20 bis, Rue St-Benoit, 6e) for a savory *steak frites*, or Au Gamin de Paris (51, rue Vieille du Temple, 4e) for an addictive *magret de canard* and *gâteau chocolat*. These restaurants, and others like Drouant (16-18 place Gaillon, 2e) and Comptoir (9 Carrefour de l’Odéon, 6e) aren’t just delicious, they’re transcendental.

Back at the factory TBM 850 serial number 360 was being readied for its transatlantic jaunt—with me as copilot. Socata ferries all their US-bound aircraft across the North Atlantic. They’ve done it more than 250 times without incident, so for them a crossing is just another day at the office . . . though it never really is, especially in a single. Indeed, the idea of hopscotching my way to New York from southern France had me as excited as a 10-year-old at Euro-Disney.

All TBMs leave the factory with completed interiors, and the materials and fit and finish are top-notch. The flight deck is comfortable and well laid out. It has a big-airplane feel and small-airplane simplicity. The cabin is finished in soft but durable leather and fabric. It had that new-car, I mean new-plane, smell. As Socata technicians and Christian check and recheck the 850, I go over our flight plan that takes us from Tarbes to Wick, Scotland; Reykjavik, Iceland; either Narsarsuaq or Sondre Stromfjord, Greenland (depending on the weather); Goose Bay, Labrador in Canada; Bangor, Maine, to clear US Customs; and then New York City, landing at White Plains. Like I said, the flight of a lifetime—over a lot of very, very cold water.

It was good to see Socata’s Philippe de Segovia again, and over a couple of *Coca Lights*, he told

me about their TBM 850. From a practical and financial standpoint, Philippe points out how much more efficient the TBM 850 is compared to the new crop of VLJs. “The TBM will burn much less fuel than a VLJ,” he notes, adding that “since the TBM is a single, it will have a lower direct operating cost—single-engine economy—VLJ speed.”

As I was soon to see, though the TBM is typically RVSM (reduced vertical separation minimums) equipped for cruise as high as 31,000 feet, the TBM’s cruise altitude sweet spot is in the mid-20s. At 26,000 feet, or FL260, in ISA conditions the TBM’s max cruise is 320 KTAS with a range typically around 1,100 miles. The TBM is an aircraft pilots fly by the book, and if you configure for max range the TBM will lay a 1,500-nautical mile contrail. Fly a VLJ at FL260 for very long and its range will drop way down, but that’s where, according to Andrew Knott, Socata’s vice president of marketing in the United States, the TBM really shines. “Besides the fact that the TBM is optimized for the owner-flown market, VLJs that need to operate at the higher altitudes, up to 41,000 feet, for fuel efficiency will see traffic conflicts since they’re sharing airspace with faster airliners. VLJs therefore will often be held at lower altitudes, and with their already limited fuel capacities, they’ll have to fly slower or stop more often short of their destination to refuel. Not so with the TBM 850.”

Tarbes to Wick, Scotland, LFBT—EGPC 924nm 3:41
It’s a long way to Tipperary.

Wick is way up on the northeast coast of Scotland, and as we departed the Tarbes area and climbed to our cruising altitude of FL280, where our cabin altitude was a comfy 8,000 feet, we checked in with Bordeaux on 133.580 (8.33 spacing—a Euro requirement), telling the female controller that we were direct Cognac. Bordeaux, Cognac, what’s the next sector, Champagne or maybe Guinness once we reach the United Kingdom? “I call you back,” replied the controller in the cutest little French accent—*j’adore*. As we sailed across Brittany we could see a lattice of contrails from airliners plying the Atlantic corridor, which just whet my appetite for the journey that was just beginning.

An hour and a half from Tarbes, TBM N874CA entered British airspace. Our routing had us clip the megalopolis of London to the west and skirt Liverpool and Manchester as we sped north to the salt air of Wick. Unlike in the United States, with a change of territory and airspace came a pronounced change in air traffic controller accents, and when we were handed off to Scottish, not Scottish Centre or Scottish Approach—just Scottish, the reverb of their radio made the controller sound like his head was in a metal bucket.

Wick ATIS advised CAVOK (Ceiling and Visibility Okay) conditions for our approach, and we alighted on runway 13 for a quick turn—next stop, Reykjavik, Iceland, but not before loading a couple of life rafts and picking up a bright red, Gumby-like neoprene immersion suit.

Wick to Reykjavik, Iceland, EGPC—BIRK 637nm 2:29
Volcanoes, Glaciers, and the Midnight Sun

Our crossing was now no game as Christian and I donned survival suits. As I contorted into the cockpit for this next leg, almost all over freezing water, I took comfort that the Pratt & Whitney

PT6A-66D powering the TBM 850 is indeed a dependable engine. And in the TBM installation, the engine's barely stretching its legs, even in max cruise. Indeed in some installations this particular PT6A puts out as much as 1,825 Shaft Horsepower (SHP), a measure of the power delivered to the propeller shaft. But in the TBM 850, it's casually loafing at less than half its thermodynamic potential, putting out 850 SHP. As Christian and I climbed west of Wick to FL260 over a verdant countryside peppered with defunct WWII-era airbases, we discussed the new, "850" setting on the flap switch.

During takeoff the engine in the 850 is torque limited to 700 SHP and will peg at 100 percent on the torque meter—essentially making the TBM 850 a TBM 700 in the airport environment. On climbout, when the 850 detent is selected, max allowable torque is bumped up to 121.4 percent, and 850 SHP becomes available. The catch is that the pilot becomes the torque limiter, and the need to be attentive to engine settings is now paramount to not exceed the new maximum values—either torque down low or ITT (Interturbine Temperature) up high.

Our flight plan for this leg was EGPC—DEVBI—RATSU—ALDAN—ELLIDAVATN—BIRK. Established in cruise, Christian asks me to advise him of our passing any ships or boats. I saw none, but at the RATSU waypoint, finally one appeared. Christian noted the time and said that if we have any failure, we can approximate its location, fly to it, and ditch nearby. I noted these numbers 195 miles southeast of Reykjavik. At FL260, it was -26 degrees C (dC) outside. With an ITT of 773, a torque of 110 percent, and with the prop spinning at 2,000 RPM, we were indicating 204 knots, truing 316, and burning dinosaurs at about 64 gallons per hour. And this was while, in Christian's words, respecting the new engine.

This was Christian's 54th ferry flight in the TBM, and he didn't seem at all jaded by the sometimes unbelievable view from the flight levels. Every so often he'd say, "Oh, very beau-tee-ful," and grab his digital camera, which was never far from his reach.

As we approached Reykjavik, the volcanic landscape of Iceland emerged in shades of white, slate gray, and charcoal, with snow-covered peaks mixing with the undercast. Christian and I thought it was funny how the Reykjavik controller, in a thick Icelandic accent, suggested a visual approach while we were over a solid cloud deck. Uh, sure buddy. And as we emerged from the clouds while on the ILS to runway 31, the quality of light was nothing like I was used to in New York or Los Angeles. It was raining on and off, and the colors of the roads, buildings, and fields in and around Reykjavik seemed dense with saturated greens, grays, and contrasting shades of white.

Reykjavik to Narsarsuaq, Greenland, or rather Sondre Stromfjord, BIRK—BGSF 727nm 2:54
Into the Arctic Circle!

Lining up on runway 31, we poured on the coals, rotated at 80 knots, and climbed to FL260 through an Icelandic sky brushed with soggy clouds. On this leg, at GIMLI waypoint, we radioed our position report to Iceland. "TBM N674CA is 65N 30W at 1651 (Zulu time) FL260. Expect 66N 40W at 1752, SF (a radio beacon near Sondre Stromfjord), next." That's right, we're going to Sondre Stromfjord (BGSF), about 377nm north of Narsarsuaq and 15 miles into the Arctic Circle. The weather at both Narsarsuaq and Nuuk was below minimums so we had no choice but

to take a more northerly routing. As we pass 66N 40W, it's hard to discern between a cloudy undercast and the glacier that is Greenland as both are stark white. The ice though is a bit more stark and appears rippled like a blanket on an unmade bed.

On our descent into Kangerlussuaq, Sondre Stromfjord's Inuit name, I started to get a better look at the unique topography of Greenland. It was like another planet—all warm brown and gray rock accented by mossy green. There were no trees, and except for the small town and its hodgepodge of primary-colored buildings spooning the airport, there were no signs of life anywhere. Greenland is mostly glacier, and it was barren and not too inviting as seen from the flight levels.

Kangerlussuaq to Goose Bay, Labrador, Canada, BGSF—CYYR 870nm 3:02

On climb from BGSF Christian briefed me on engine management during climb in the 850. He asked that I set torque at 120 and hold 150 knots indicated, easy with the Bendix/King KFC 325 Digital Autopilot, until the ITT hit 790 degrees. Then I was to maintain that 790 degrees until top of climb. The engine in the TBM will put out its full rated power through 25,000 feet in standard conditions. As we let down to approach Goose Bay, we skated over more icebergs and a shattered icepack glinting under a setting sun. The feeling of supreme satisfaction was overwhelming as we hopped from the TBM onto Canadian soil. Now I was north of New York—way north, but on the same continent. I had done it. I had crossed the Atlantic.

Goose Bay to Bangor, Maine, and New York City, CYYR—KBGR—KHPN 918nm 2:10, 1:30

I hear that the trees in Goose Bay are stunted and short because it gets so cold in winter, so I'm glad it was summer. I've also heard that attempting an Atlantic Crossing in winter is much more treacherous than during the summer season, when it's merely rather dangerous. After some crucial recharging at the Hotel North, we piled into the TBM the next morning for our final legs to New York. Climbing out of Goose Bay at best rate, we leveled off at FL260 in a scant 17 minutes. Christian noted that in a TBM 700, the same climb to FL260 would take 23 minutes. He said that on average, the 850 has a 20 knot advantage over the 700.

After these two days, I've found flying and landing the TBM about as easy as any of the high-performance singles on the market. Speeds around the airport are within a few knots of what pilots see in the Cirrus SR22 or Columbia 400; engine management is different though not much more complex. To that end I can't imagine a pilot competent with managing the systems of a Technically Advanced Aircraft (TAA) having any issue transitioning to the TBM. And compared to the proficiency level a pilot will need in VLJs, the TBM offers performance similar to the VLJs in a less-demanding work environment. Pilot insurability and ease of owner/pilot transition will also be major factors in the popularity of this most desirable bird. As such, Socata has clocked a backlog of more than 50 orders, which is a record.

Homeward bound to New York City, I checked in with ATC to obtain a special clearance that I thought Christian would enjoy. To our luck they said yes—they don't always. After flying down and then up the Hudson, I banked right and crossed Central Park at 1,500 feet. Traversing Manhattan Island, the view up and down the avenues was majestic. Flying direct Bowery Bay, I

thought a little about the history of the North Atlantic route I just completed and how fitting it was that I was over Bowery Bay at the end of my own North Atlantic crossing. And having just flown in from Labrador by way of Iceland and Greenland, I had just completed in reverse what the Lindberghs had done almost 73 years ago to the day.

Anne Morrow Lindbergh once said, “There are no signposts in the sky to show a man has passed that way before. There are no channels marked. The flier breaks each second into new uncharted seas.” On this voyage, not only was I following some very formidable footsteps, but I was also breaking new, uncharted seas of my own in the serenity and supreme solitude I found during near-solo flight over the Atlantic. Though I was hours from land and flying in the flight levels, for a while I never felt more grounded.

Shortly after my return I dropped a line to Charles’s and Anne’s grandson Erik Lindbergh to discuss the crossing. “When I flew from New York to Paris in 2002, it was a transformational, coming-of-age journey for me, helping me come to terms with the history of my family,” he told me. “Your crossing is a testament to how far we’ve come since my grandfather’s time, and how routine it’s become.”

While crossing the North Atlantic in a single-engine aircraft might never truly be routine, it is nevertheless the flight of a lifetime. I can’t wait to do it again, and I can’t think of a better plane to trace Lindbergh’s footprints than the EADS Socata TBM 850.

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