



L-39 ferry flight

BY RICHARD “MONGOOSE” HESS

PHOTOS COURTESY OF THE AUTHOR

Late last January my company, International Jets Inc., had a visitor from Italy. He had been searching and waiting for 12 long years to buy an L-39, and to find an organization he could trust with this important purchase. We were honored to be chosen.

The buyer's decision to use the services of International Jets was just the beginning of an incredibly long process, ending with the delivery of his aircraft to his home airport in Italy.

There were a number of good candidate airframes to choose from. The buyer finally settled on a 1980 aircraft

with excellent avionics, affectionately known as “Thunderbird” for its paint scheme. We accomplished the annual inspection and fixed all discrepancies.

The avionics package on the buyer's chosen aircraft was already extensive, but International Jets added a Garmin 430 to the front cockpit to back up the 530 already there. The GPSs were also enabled for cross-fill to ease the pilot's workload (so important later in European airspace). We moved the 250XL to the back seat for a minimal VFR comm/nav capability.

We installed a true TCAD traffic avoidance system according to European requirements. The aircraft

already had a Stormscope lightning detector. Perhaps the most important addition was the installation of a TruTrak Sorcerer autopilot. For those who know this system, you'll agree it is a lot of capability for the money. You can program climbs for any specific airspeed and altitude capture. Descents can be set for a specific vertical speed and altitude capture as well. In a busy IFR environment this autopilot is worth its weight in gold. Finally, you can program it for fully coupled instrument landing system (ILS) and wide area augmentation system (WAAS) approaches. Half of the eight legs to the plane's destina-

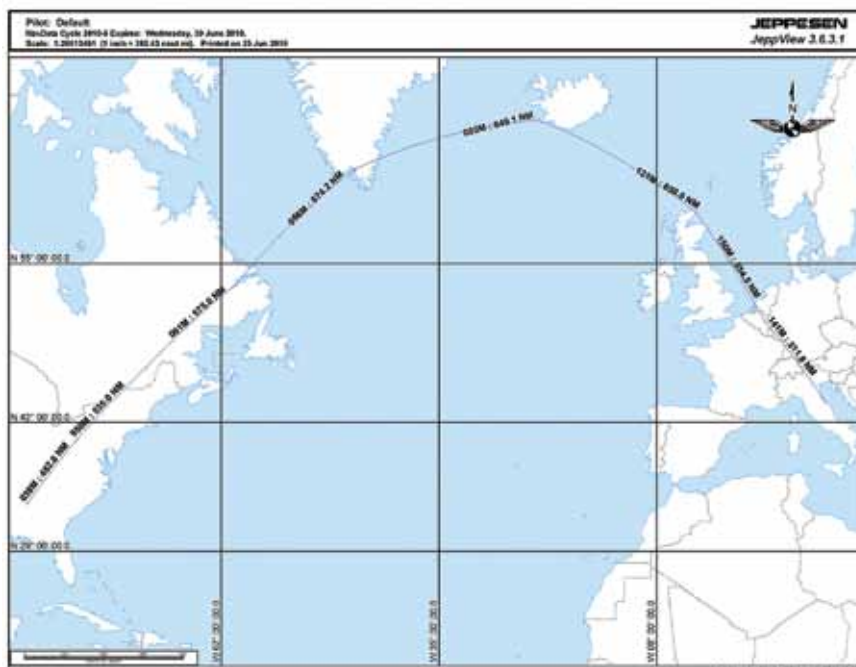


Over the Ocean & Through the Wastes

tion ended in fully coupled, actual instrument approaches.

We discovered that Mirco Pecorari, an Italian designer, lived only 80 kilometers from the buyer. They got together, and as the pictures will show, the new paint scheme was very *ta bene*.

Range needed to be increased for this ferry. The total distance was about 4,650 nautical miles (nm), with the longest leg filed as 713 nm from Goose Bay, Labrador (CYYR), to Narsarsuaq, Greenland (BGBW). To accomplish this task, International Jets designed, built, and tested a 49-gallon tip tank (original is 26.5 gallons) and installed a 150-liter tank under each wing. This increased total fuel capacity to 467 gallons compared to 343 gallons originally. I performed a 710 nm test flight, flying the aircraft exactly as I would on the ferry. Everything



worked out perfectly. I became familiar with the exact flight characteristics of this configuration, and I estimated I had a no-wind range of 750 nm with IFR reserves at 27,000 feet.

Getting the aircraft ready for the ferry was almost the easy part compared with the regulatory and approval requirements. The State Department export approval process was a four-step, three-month slog. Thank goodness for my secretary, Kathy Jones, who quickly became an expert at this process and established a rapport with the officials involved. As a result, International Jets is now an approved and registered exporter. Next we established an account at the Electronic Advance Passenger Information System (eAPIS) for Transportation Security Administration notification of all crew and passengers leaving or entering the United States. It seems silly to have to tell them who is leaving, but those are the rules.

After much research I decided to use the handling services of Skyplan in Calgary, Canada. It supports dozens of flights around the world every month. Its flight-planning and weather services were thorough. It actually loaded the performance charts from the L-39 flight manual so as to have very accurate time and fuel calculations.

Skyplan also has “handlers” at most airports for all servicing needs, and it usually has a contracted fuel price that can save you significantly from posted prices. Many stations in the States, however, honor AirBoss cards and other fuel-discounting services, so it makes sense to check. Skyplan allows you the option of paying directly or having the charges billed to you.

Skyplan did an excellent job identifying the countries that required landing or over-flight permissions and secured each of those. However, many countries’ civil aviation authority will not deal with the permission until 24 hours prior to the flight. It was a little nerve-racking to be halfway across the ocean and worrying that an important piece of the puzzle was not yet in place.

One last item to plan for is a set of



Goose Bay (CYR)

survival equipment before you cross the ocean. A survival suit with flotation (we called it a “Poopy” suit in the Air Force), a raft, and a 406 beacon are all required. I arranged mine directly from Far North Aviation in Wick, Scotland. Andrew Bruce is a gem and helped out with many things during the planning phase. Last but not least, we had the owner secure insurance for the crossing with European Union minimum coverage.

Finally, the last week of June came, and it was time to launch. I planned to fly two legs per day, keeping a sharp eye on the weather and wind forecasts. If the conditions dictated, I felt capable of flying three legs in a day. A number of friends offered to ride along, but I patiently told them I did not want the extra weight. Sorry!

Day 1

I had originally planned to fuel at Allegheny Airport (KAGC) near Pittsburgh, but there were thunderstorms in the forecast, so I decided to go an extra 100 nm to Buffalo, New York (KBUF), which had a better forecast. Wrong! There were fast-moving thunderstorms over the field as I got 60 nm from destination, and I was put in a holding pattern for 15 minutes. Then ATC started vectoring me to the west over Lake Erie. I calculated I had about 10 more minutes of delay fuel, and then I needed to head to an alternate. I declared minimum fuel, and Buffalo Approach worked nicely to get me on the ground in the minimum time necessary as the storms

moved east. I fueled and topped off my oxygen system, as I wasn’t sure if that service would be available down range. One down, seven to go.

The second leg was much shorter, just more than 400 nm compared to the first leg at over 600 nm. Quebec (CYQB) is northeast of KBUF, and the normal routing is east along upstate New York to Plattsburgh and then north. Of course I was heading straight for the weather that had delayed me in Buffalo, so I made northerly deviations for two-thirds of the flight. The weather in Quebec was less than 1,000 overcast with good visibility in light rain and mist. I flew the second ILS of the day to an uneventful landing.

Quebec ground control had me taxi to the passenger terminal and park short of one of the gates. It seemed strange to have an L-39 at the terminal, but that’s where they wanted me. Customs personnel came out and did a very thorough examination of *all* my paperwork. They wanted to see the eAPIS declaration, the Canadian permission, and all the paperwork for the experimental aircraft (registration, airworthiness, ops limits, program letter, etc.). I am glad I prepared well—I was surprised at their thoroughness. We towed the aircraft to the fixed base operator and arranged to store it overnight in one of the hangars. A taxi ride to the hotel and day one was complete. Two down, six to go.

Day 2

I got a good night’s sleep and was up early checking weather and the flight



Narsarsuaq, Greenland (BGBW)



Narsarsuaq, Greenland (BGBW)



Narsarsuaq, Greenland (BGBW)

plans from Skyplan. The run to Goose Bay (CYR) was only 575 nm, and the weather was forecast to be good. I was nervous about flying the 700-plus nm leg to BGBW. The nearest paved alternate for Narsarsuaq is Sondrestrom, 413 nm to the north.

The best thing is that BGBW was forecast for clear skies. The flight to Goose Bay was totally uneventful. Once I climbed out of the soup at Quebec, it was a smooth ride at flight level 250, or FL250, with a 50-knot tail wind. The clouds started to break up 150 nm from Goose Bay, and the glimpses I had of the terrain made me thankful that Motor Sich built such a rugged and dependable engine for the L-39.

I was cleared for the third ILS approach in as many legs, but I descended out of the broken deck 2,000 feet above ground level (AGL) and had a stunning view of Goose Bay in the distance be-

yond the airport. I taxied in to Irving Aviation, fueled the aircraft, and went inside to collect my survival gear.

The line guys couldn't help laughing good-naturedly as I donned the ridiculously bulky survival suit. It is a one-piece suit with feet, gloves, a hood, and a tight hook-and-pile tape seal at the neck. The gloves were so bulky, I couldn't program the GPS without hitting four buttons at once. I finally decided to fly with the suit stripped to my waist, the beacon in my flight suit pocket, and the raft stowed between the ejection seat and the blast glass between the cockpits. Not the best situation, but it was the only way to keep everything with me in the tight confines of a fighter-like cockpit.

VHF coverage for the route is not guaranteed below FL310, and HF would normally be required. Because I only had dual VHF, I was routed north

to HO and then out to the offshore fix of Porgy. This added 40 nm to what was already the longest leg of the journey. I asked for direct routing and was cleared to Porgy. I leveled at FL270 and set the power to about 99 percent and 130 gph. It was not possible to set a much lower power setting. With the drag of the underwing tanks, the aircraft would fall off the cruise "step" easily. To add to the stress, I averaged a 20- to 30-knot head wind for most of the way to Greenland.

Flying the earlier test profile paid off, and I landed in BGBW with full reserves in the tanks. I can't describe the awesome and stark beauty of Narsarsuaq. One of the fjords on arrival leads to a glacier, and its approaches were full of calved icebergs. On final for Runway 07, you can see another huge glacier just to the east of the airport.

Four down, four to go. I was driven a mile down the airport road to the Narsarsuaq Hotel. It was a clean, modern facility with very friendly people, half of whom were Scandinavian and the rest were Inuit. The dining room had an awesome seafood buffet for dinner. I tried seal blubber (too oily and streaked with blood for my taste), shrimp, salmon, and a half-dozen other types of fish. I couldn't help thinking how much healthier I would be if I ate like this all the time.

It never really got dark. The sun set behind the nearby mountains after 10 p.m. and rose again in the early morning hours. I was the first up for the breakfast buffet. The air was com-



Keflavik, Iceland (BIKF)

pletely still, and I swear I could hear icebergs being calved as the deep rumbling carried down the fjord.

Day 3

Fueled, packed, and suited up, I took off for Keflavik, Iceland (BIKF). The climb out of BGBW was just beautiful. There were glaciers and snowfields as far as the eye can see. Once again, I was routed 40 nm south and then east due to conflicting traffic on the North Atlantic Track system (NATs). I set up the cruise profile at FL270 again and was rewarded with a modest tail wind. This flight was uneventful until the descent 20 minutes out of Keflavik. A thick layer of clouds held light rime icing and did not turn to rain until be-

low 10,000 feet. I flew one more ILS and broke out about 1,000 AGL. Iceland is another starkly beautiful land that seems primordial.

I taxied in and shut down, getting excited because I knew I was only one leg from finishing the ocean crossing. I had been worried about the volcano in Iceland, but it had thankfully fallen asleep weeks before. With the jet fueled and me dressed in my "Poopy" suit, I grabbed a handful of Danish cookies from the pilot lounge and headed out to the airplane.

Takeoff and climb-out were uneventful except for a little icing until level off. The winds were mostly a crosswind that swung to the tail as the flight progressed. I started talking to

Scottish control 200 nm from Wick (EGPC), and I was hard-pressed to contain my excitement. The ATIS called for 700 broken, or very cloudy, so I flew the VOR approach to Runway 13. Northern Scotland is flat, green, and very windswept. Ah, but it was great to finally be over solid land again.

Andrew Bruce of Far North Aviation and the Italian owner (who had flown up) were there to meet me. We turned in all the survival gear, put the airplane to bed, and Andrew drove us to the hotel in town. What a quaint village!

More importantly, the hotel makes its own single-malt scotch, and I was intent on trying some. We had a surprisingly good gourmet meal in the hotel restaurant, which was run by a couple from Sri Lanka. You never know what you're going to find in small, out-of-the-way places. After dinner I sampled the scotch and couldn't help buying a bottle of 17-year-old to take with me.

Day 4

Another good night's sleep, and I was ready for the final journey. The legs were 550 and 515 nm, respectively; the weather was forecast to be good; and I initially did a partial fueling thinking I wouldn't need more. Boy, was I wrong! Euro control added 140 and 130 nm to my routes, respectively, because of conflicting traffic at FL270. We scrambled to fuel the aircraft and load up for a





Mission complete.

Belgium and German controllers were very accommodating. A minimum fuel profile quickly became a landing with nearly 1.5 hours' reserve.

The Adriatic Sea was beautiful as I coasted out over Venice and continued south. Once below 20,000 feet, I coordinated for direct destination and canceled IFR as I was planning to land on a nontowered 1,200-meter grass strip. I'd never landed a jet on anything but concrete or asphalt, but there's a first time for everything. I did one low approach to get a good look at the field and then set up for a short field, full stop. It was very uneventful. The 4,000-foot runway had nice approaches with overruns, was reasonably smooth, and the surface was quite firm. I taxied into the ramp and shut down. Mission complete.

Conclusion

I know many people move lots of single-engine aircraft all over the world every day. There are folks with hundreds of flights over the Atlantic and Pacific oceans in such aircraft as single-engine Pipers and Cessna 10s. There is *always* a risk to these flights. It's not as if you can land with a mechanical problem and walk away. So, the best you can do is plan carefully for most eventualities and carry the required emergency equipment.

This was truly an adventure. I was excited to get started but glad when it was over. Everyone should have a chance to do such a mission. Part of what made it so rewarding was to see the great interest the aircraft generated at every stop. Believe me when I say these stations don't see an L-39 every day, especially one painted up in such pretty colors. Everywhere I landed airport workers and pilots pulled out cameras to snap a picture.

It is truly gratifying to plan such a long, challenging mission and have it execute exactly as scheduled. Perhaps the lesson is this: Plan your missions, no matter how simple or low risk, as if your life depended on it. Because in the end, it really does.

Don't forget to always fly safely and check your six often.



very specific slot time.

The winds were blowing 20 knots down the runway for takeoff, and there was light rime icing in the climb but clear at altitude. I started looking at the route and the fuel burn to my fuel stop, Liege, Belgium (EBLG), and realized that

with an unexpected head wind, I would not have enough fuel to complete the leg with reserves. Scottish and then London control were very accommodating. Once I explained the situation, they coordinated with Holland and routed us significantly more direct. What started to look like a landing with 20 minutes' reserve quickly became an hour and 20 minutes' reserve. So much for Euro control.

I flew an overhead approach at Liege and taxied to Signature Aviation. A number of student pilots were flying Pipers, and everyone came over to get a close look at this beautifully painted L-39.

While they fueled the jet, I went in for a short break and studied the maps for the routing to Fano, Italy (LIDF). Rather than direct, I had to fly a long instrument departure, fly east over Frankfurt and Prague, then finally south over Switzerland and the northeast coast of Italy. I started asking for direct routing once level, and again the



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