

FABulous Flying

The 154 pilots of First Air connect widely scattered communities in the Canadian north with each other and the outside world

By Jan W. Steenblik, Technical Editor

Ahead, hugging the side of the fjord below the thin blanket of stratus, lies Pangnirtung, Nunavut, an Inuit hamlet of some 1,300 hardy souls, give or take a few, hunkered down below the Arctic wind sweeping across Baffin Island. A few hundred squat, unremarkable houses huddle on a coastal plain surrounded by forbidding mountains.

Splitting the village is Pangnirtung Airport—2,920 feet of gravel and hard-packed snow scoured by the icy turbulence spilling over the mountains. Runway 6 offers an NDB circle-to-land approach and GPS overlay with high minimums: 2,545 feet and 3 miles.

The Jepp chart for “Pang” reads, “CAUTION: Only pilots with considerable experience should plan on using this airport due to surrounding terrain and variable local conditions. Surrounding terrain may constitute a hazard to night flying. Possibility of pedestrians crossing runway when airport radio closed.” Also, “Terrain rises rapidly in all quadrants.”

Capt. Trevor MacLaurin and F/O Matthew McCullagh are the flight crew on this ATR 42 combi tonight. The ceiling meets VMC minimums, which means MacLaurin may hand-fly a steep, 5.5-degree approach using an FMS-derived pseudo-glideslope displayed on the flight directors. Full flaps (30 degrees), idle power, and 110 knots put them right over the threshold, on speed and glideslope; flare, thump, push, brakesreversepitch and they're at taxi speed. Welcome to Pangnirtung.

The steep approach has allowed MacLaurin and McCullagh to bring somewhere between 6,000 and 8,000 pounds of payload into Pang tonight, more than 1,000 additional



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pounds than if they flew a conventional 3-degree approach. To this isolated community, that means more food, medicine, quads, snowmobiles, and other staples of the high Arctic—perhaps parts for the generator, without which the village will have no electricity, no lights save flashlights and oil lamps, and far fewer of the comforts and necessities of 21st-century life.

Taiga and tundra

First Air, which started flying in 1946 as Bradley Air Services, is wholly owned by the Inuit people of Quebec through the Makivik Corporation. The airline now connects four major Canadian cities and provincial capitals—Ottawa, Montreal, Edmonton, and Winnipeg—with an expansive network of routes that span the Canadian north from Inuvik in the Northwest Territories to Qikiqtarjuaq on the rugged shore of Baffin Island. With hubs in Yellowknife (the capital of the

Northwest Territories) and Iqaluit (the capital of Nunavut Territory), the airline’s varied fleet of turboprops and turboprops stitches together the sparsely populated towns and hamlets of the taiga and tundra scattered across three time zones.

Capt. Michael Strader, an ATR 42/72 pilot, likes the fact that First Air pilots get to see “incredible scenery and many return customers.” He adds, “I get to fly with people I enjoy working with, and I get to see passengers in the back of the plane who I know personally, who I see on the street. And they know our reputation, and they appreciate what we do for them every day, doing our best to get them in and out of places, with safety uppermost in our minds.”

Capt. David Wade, another ATR pilot based in Iqaluit, agrees: “The airline is the lifeline of these communities. Other than sealift [the brief period in the Arctic summer when ships can move bulk food and other cargoes to high Arctic communities],





PHOTOS: LEFT, ABOVE, RIGHT, BY ERIC DAVIS

From left: An ATR 42 takes off from a snow-covered runway in Pangnirtung. Ice, snow, and dramatic changes in weather are not the only obstacles that might be encountered flying in the Arctic. A ground crew loads an ATR 42 combi in Iqaluit. One of First Air's B-737s in Iqaluit. B-737 Capt. Frank Dufour and F/O Michael Edwards.

it's the only way in and out."

Wade came to First Air from Bearskin in 1988. "I like that type of work, dirt strip work," he explains, "and I had family members on Baffin Island.

"It's not the type of work that everybody's cut out for. Some people are more into the white-shirt-and-tie thing. You can get that at First Air, but I like not having to wear a uniform."

MacLaurin notes, "What makes pilots at this company unique is that the people who stay really like the environment we operate in and the variety of flying that we do. It's not just one ILS after another on 10,000-foot runways.

"We're not talking to ATC all the time. Much of what we do up here at First Air goes under the radar, literally. You've really got to be aware of the big picture; you may not have a lot of options."

He adds, "We carry some cargoes that are common to us but might seem strange to people down south—quads, snowmobiles, boxes of walrus meat."

Hercs at work

First Air has provided lift for a wide range of unique ventures over the years—Twin Otter flights to the North and South Poles, various mining, mapping, and aerial survey projects, and passenger charters and cargo contracts throughout North America and other continents.

F/O Devin Lyall, the pilot group's Master Executive Council (MEC) chairman, has lived in Yellowknife for 10 years and flown for First Air for the last four—not counting the two years he was a Beaver pilot on contract to First Air in Quebec more than a decade ago.

These days, Lyall flies right seat in First Air's Lockheed L-382s, the civilian version of the venerable C-130 Hercules military transport. First Air operates the only two working Hercs in Canada.

Flying the Hercs is "lots of fun and offers a lot of variety" in types of flying and cargoes flown, says Lyall.

The Hercs can haul a maximum payload of 47,000 pounds, relatively economically, and offer the ease of loading and unloading afforded by the airplane's wide aft ramp. First Air prefers that runways built for the Hercs be at least 5,000 feet long and 150 feet wide, but the big turboprops can operate from runways 4,200 feet by 100 feet at maximum landing weight and from 3,800 feet with reduced landing weight.

"We serve a number of mining operations from Yellowknife," Lyall notes. "Mining is big in the Northwest Territory and Nunavut—uranium, gold, diamonds, and other minerals—and most of the mines are far from a road. They need to move a lot of equipment and supplies. This winter we flew more than 200

trips to just one mining camp, which used an ice strip—with 42,000 pounds of payload each trip.

"Right now we're supporting three diamond mines that are 130–200 miles from Yellowknife. All three have gravel strips—one is 6,200 feet long, and the other two are 5,000 feet. We also land on ice strips; the ice must be at least 48 inches thick."

The First Air Hercs have flown cargoes to Africa, Europe, Japan, and South America. After the catastrophic earthquakes in Haiti in January 2010, First Air pilots flew Herc relief missions to that devastated country from Washington, D.C., and Miami, Fla.

Diamonds and sea ice

Capt. Peter Black, the pilots' MEC vice chairman, remembers an unusual operation during the 1990s, when the airline's fleet included a couple of venerable Boeing 727s. Platinova, an international mining company, hired First Air to support exploratory mining for zinc—and the possibility of associated diamonds—on Greenland's forbidding north coast.

Black and his crew flew a B-727-100 carrying a Hughes NOTAR helicopter and a bulldozer from Ottawa to Thule, on Greenland's west coast, and then to Station Nord, a military and scientific base on Greenland's northeast coast. A very tough roughneck from the Alberta oil patch drove the bulldozer about 300 miles across the sea ice to a fjord on the north coast, where he bulldozed a 7,000-foot runway on the sea ice in the fjord.

"Two weeks later, we rolled onto final, inbound to the fjord, and there was the runway," Black recalls. The next year, he landed a B-727-200 on the sea ice—this time, on 11,000 feet of ice runway.

Landing on the ice was not difficult, but the dozer operator had done his job almost too well: Because the ice was so smooth, Black spent a nerve-wracking half hour getting the Boeing turned around for takeoff, gingerly using brakes and reverse thrust. Afterwards, he had the bulldozer operator rough up the ice with the bulldozer blade to improve traction.

During his time on the sea ice runway, Black kicked the snow bank at runway's edge with his boot, assuming the snow was soft. To his dismay, he discovered that it was frozen hard, compressed by the bulldozer.

"If we'd had any kind of runway excursion, we probably would have damaged the landing gear, at least," he notes, "and the airplane would be at the bottom of the fjord now!"

Versatile Boeings

The Seven Twos have left First Air, but not by turning into Arctic Ocean fish reefs. Today, the airline's Boeing fleet consists

Moak Creates ALPA Presidential Committee for Remote Operations



ERIC DAVIS

Capt. Peter Black (First Air) will chair a new ALPA Presidential Committee for Remote Operations created to address the challenges that ALPA members confront daily in the high Arctic and other remote locations in the U.S. and Canada. Pilot reps from Alaska, Calm Air, Canadian North, and First Air will serve on the Committee, which will seek

additional help as the need arises. ➔



An ATR 42 lands at Pangnirtung Airport.

LANDON SERSWITZ

of seven B-737-200s (four featuring a flexible combi configuration for carrying passengers and main-deck cargo at the same time), plus a B-767F widebody freighter that can lift almost 100,000 pounds of payload. The Seven Six is available for charters all over the world, but most of First Air's bread-and-butter use of the airplane—literally—is in flying for Food Mail, a Canadian government program that helps to distribute food to isolated communities by air.

The B-737-200 combis sport gravel kits—nosegear plates like skis to keep the nosewheels from spraying gravel into the airplanes' low-slung engines, plus vortex dissipaters, booms that extend forward from the bottoms of the engine nacelles and use bleed air to blow gravel and other debris away from the engine intakes. Special underwing linings on the flaps and around the gear wells complete the gravel kits. So equipped, the B-737s fly into runways as short as 5,000 feet.

Capt. Stephan Ekiert, a 27-year veteran of First Air and now a B-737 instructor pilot, points out that "all of our 737s are round-dial airplanes. We have NDB approaches at almost all of our airports, and we can fly Cat I ILS approaches. All of the 737s have been upgraded with a Universal FMS, so we can fly RNAV/GNSS approaches to almost all of our destinations."

On the one hand, says Ekiert, the milk runs to the north in the combis, ranging from all-cargo to all-passenger configuration, can be relatively easy flying: "We can launch out of here [Ottawa] at 9 a.m. and be home in time for dinner." On the other hand, he explains, "About half a dozen times a month, the weather dictates that we file for Goose Bay as a landing alternate. With the -200s, we'll have just enough fuel to fly to our destination, miss, and land at Goose Bay with min fuel."

Ekiert's wish? "A -700 combi would be a great airplane for us—with a gravel kit, of course."

Family ties

In any family, closeness brings the risk of loss; the more close-knit the family, the greater the pain of loss. Thus the crash of First Air Flight 6560 on Aug. 20, 2011, was a particularly painful blow to the First Air family of employees and the small communities they serve. The B-737-200 combi struck a low hill in bad weather while on approach to the gravel strip at Resolute, Nunavut Territory, 600 miles north of the Arctic Circle. Twelve of the 15 people aboard were killed, including the entire crew—Capt. Blair Rutherford, F/O David Hare, Purser Ann

Marie Chassie, and Flight Attendant Ute Merritt, the wife of First Air Capt. James Merritt.

Since the Flight 6560 accident, says MacLaurin, "I think many of us at First Air have become more reflective on how we live our lives. We cherish things more. For me, it was very personal—I was based in Yellowknife for seven years, right before coming here [to Iqaluit]. I knew all of the crewmembers who were on that airplane."

Lyall cherishes a fishing photo, and the memories it evokes: In the image, he holds a 24-pound lake trout from Great Slave Lake, which he and his family and friends fish frequently, year-round. Standing beside Lyall on the small boat is one of his best friends, F/O David Hare, who perished on the hillside in Resolute.

MacLaurin observes, "From an operational standpoint, I think First Air has always maintained a high level of safety. But as a pilot group, we're now more aware. [We think,] 'What loophole can I find today and make sure it's plugged?'" ➔

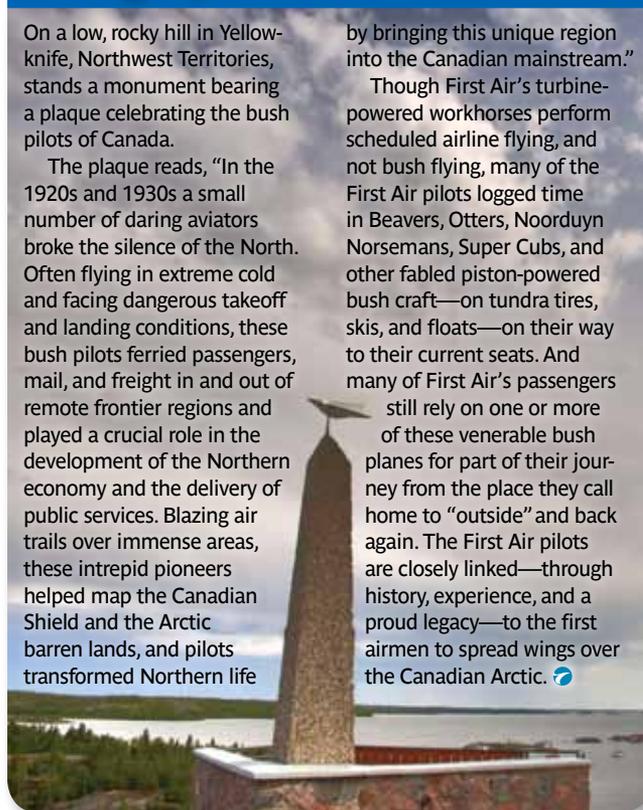
Legacy of the Bush Pilots

On a low, rocky hill in Yellowknife, Northwest Territories, stands a monument bearing a plaque celebrating the bush pilots of Canada.

The plaque reads, "In the 1920s and 1930s a small number of daring aviators broke the silence of the North. Often flying in extreme cold and facing dangerous takeoff and landing conditions, these bush pilots ferried passengers, mail, and freight in and out of remote frontier regions and played a crucial role in the development of the Northern economy and the delivery of public services. Blazing air trails over immense areas, these intrepid pioneers helped map the Canadian Shield and the Arctic barren lands, and pilots transformed Northern life

by bringing this unique region into the Canadian mainstream."

Though First Air's turbine-powered workhorses perform scheduled airline flying, and not bush flying, many of the First Air pilots logged time in Beavers, Otters, Noorduyn Norsemans, Super Cubs, and other fabled piston-powered bush craft—on tundra tires, skis, and floats—on their way to their current seats. And many of First Air's passengers still rely on one or more of these venerable bush planes for part of their journey from the place they call home to "outside" and back again. The First Air pilots are closely linked—through history, experience, and a proud legacy—to the first airmen to spread wings over the Canadian Arctic. ➔



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