

Arctic Waves

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Radio News and Stories from Canada's Arctic Region



North To Alert

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Corporal Ron McLean is a few metres outside the meteorological shack when frost begins to form on his thin, brown moustache. Pausing to pull his blue

toque down over his ears, McLean notices the light snow swirling across the gravel runway. A few days ago, the 45-year-old meteorological technician was at home in Trenton, Ontario. Today, he's trudging across a dark and frozen landscape that appears more lunar than earthly.

McLean's location is Canadian Forces Station Alert, the world's northernmost permanently inhabited settlement, and the home of a top secret military listening post. During the Cold War, Alert, which is closer to St. Petersburg, Russia, than it is to Ottawa, was used to eavesdrop on the former Soviet Union. Today, it still gathers signals intelligence in support of CF operations, but its role has evolved to include the collection of any "noise" that could assist in the war against terrorism.

It has always been difficult for outsiders to get a clearer picture of the place because no one here or in Ottawa can talk publicly about what the station "collects" or how it collects it. However, it is widely known that it intercepts radio signals originating from as far away as Eastern Russia and perhaps further. Alert can also listen in on radio traffic from ships and submarines in northern waters.

Nevertheless, 47 years after it went from being a joint Canada/United States weather station to a military post, Alert is cloaked in mystery, even though the raw data that's gathered here is analysed somewhere else—thousands of kilometres away at CFS Leitrim near Ottawa. It is believed though that during the 1960s, radio traffic was decoded on site.

Alert's other main role, explains Major Chris Dannehl, the station's commanding officer, involves maintaining a Canadian presence in the resource-rich High Arctic, where Canadian sovereignty has been tested repeatedly, including as recently as the summer of 2003 when Danish marines planted their country's flag on Hans Island between Greenland and Ellesmere Island.

Five years ago, General Ray Hénault, then deputy chief of defence staff, warned that Canadian sovereignty in the Arctic faces threats from global warming. He said the melting of the ice caps and the opening of passages could make it easier for foreign ships to navigate through parts of the North. One of the more famous "trespassing" incidents occurred in 1985 when the United States Coast Guard icebreaker Polar Sea sailed right through the Northwest Passage.

But talk of ship traffic—indeed any form of traffic beyond the weekly Hercules flights in and out of Alert—is something you don't hear much of while

standing next to a still frozen sea.

Situated on the northeastern tip of Ellesmere Island in the Canadian Arctic Archipelago, Alert is more than 4,150 kilometres north of Trenton, and only 817 kilometres from the geographic North Pole. The nearest Canadian city is Edmonton, 3,475 kilometres away, and the closest Inuit community is 725 kilometres to the south at Grise Fiord.

Alert's population last fall was between 70 and 75 souls, down considerably from the 1980s when station numbers ranged from 220 to more than 300. The typical posting lasts six months, but there are three-month tours and shorter stints for temporary replacements. And unlike other tours of duty, time at Alert is spent with personnel from units throughout the country, not just one or two.

Joining McLean on his walk to the runway's windsock is Cpl. Dennis Douglas, the station's full-time met tech. Big, bearded and quietly brimming with anticipation, Douglas, 37, is looking forward to a "flip" next week that will launch a three-week vacation. "I'm halfway through my six-month tour," he says. "I'm hoping to head home for a break and that's why Ron's here. He's my replacement and so, yeah, I'm really glad to see him."

Both men realize what an opportunity it is to serve in a place that gets its name from the British naval ship that wintered off nearby Cape Sheridan in 1875-76. "I've read and heard about this place," says McLean. "There's a lot of history here and it is definitely an extreme environment."

To get here, McLean and 14 others piled into a Hercules at CFB Trenton. The interior of the 40-plus-year-old workhorse can best be described as a cross between a mineshaft and a ship's boiler room. Dressed in winter survival gear, passengers wear headphones or stick foam plugs in their ears. They sit on fold-down mesh benches positioned fore and aft of huge roll-on, roll-off cargo pallets.

Each pallet—depending on the need—can be loaded floor-to-ceiling with everything from mail to zucchini. Those travelling in what's sometimes jokingly called "economy class" get an excellent view of the cargo ramp and the rather basic toilet facilities that include

a squat white canister for the ladies and a fist-size, waist-high basin for the gents. For privacy, there's a wrinkly plastic curtain.

The plane's walls and ceiling are covered with hydraulics, cables and pipes, some of which drip condensation onto passengers too sleepy or too wrapped up in their parkas to notice.

These old planes, which have outlived their original life expectancy, usually make the trek to Alert every week throughout the year, hauling roughly 22,000 pounds of cargo and people per flight. And twice a year—in April and during the summer—four Hercs and more than 180 personnel participate in round-the-clock re-supply operations known as Boxtop I and II. The first lasts about three weeks and delivers fuel—nearly 400,000 imperial gallons of it. The second involves the delivery of between 500,000 and 750,000 pounds of dry goods, construction materials and vehicles.

From Trenton, the Herc flew 7 1/2 hours to the huge American air force base at Thule, Greenland, where the Boxtop flights originate. The route took McLean over Eastern Ontario, Quebec, Baffin Island, into the Arctic Circle and then over the Davis Strait.

After overnighing in Thule, passengers and crew got up early, swallowed breakfast and then boarded the plane again. The last leg took them over the narrow Kennedy and Robeson channels separating Greenland from northeastern Ellesmere Island. Eventually, the plane thundered out over the Lincoln Sea, turned back and then landed in a swirl of dust and snow on the 5,500-foot runway.

Climate is the first thing people notice when they arrive. In October, it can be very cold and a little dark because there is no direct sunlight from about Oct. 10 to the first week of March. But if you arrive in early April, you won't see the sun go below the horizon until Sept. 5.

Air quality is another thing people notice. It is fresh and unbelievably clear. But it is also dry—so dry it creates a lot of static electricity, something McLean and Douglas notice whenever they touch anything metal in the Met Shack. And, oh yeah, the dryness can cause your skin to flake and scabs to form inside

your nose.

The average daily summertime high is 10 C. In winter it can remain at -40 C for days on end. The record low is -50 C, recorded in 1979. Wind and wind chill must also be respected because while the mean annual wind speed is slightly more than eight kilometres an hour, it can take only minutes to go from five to 90 kilometres an hour, enough to knock a man off his feet, and create severe whiteouts.

Besides being deprived of warmth, visitors can lose their sense of distance or scale, thanks to the clear air and wide, treeless landscape. In fact, if it weren't for the snow and the cold, you could easily think you were in the Sahara Desert, which, by the way, gets more annual precipitation than Alert. And speaking of sensory deprivation, the United States Mountain Range, situated roughly 80 kilometres west of the runway, can seem like an easy 20-minute walk.

But despite the optical illusions and weather extremes, most people who come here appreciate the silence and raw beauty surrounding them. McLean has already spotted Arctic wolves, hares and several foxes. And both men are indeed proud to count themselves among the Frozen Chosen, a nickname that originally applied to Department of Transport arctic weather station personnel who arrived here in 1950, before it was a military post. Today, the name freezes to anyone who has served here.

It is -18 C when McLean and Douglas reach the windsock. Winds are about nine kilometres an hour, causing the striped sock to inflate and look like the hat worn by a cat in a famous Dr. Seuss book. Douglas and McLean have agreed to a media photo session, one that falls under the category of "temporary replacement for personnel going on leave." What Douglas and others here don't know yet is that fate will intervene in a few days and delay next week's flight by a week.

Far to McLean's left, beyond where the runway lights trail off toward the ocean, massive blue and white icebergs—some larger than transport trucks—have piled into each other, creating a wintery gridlock. Every once in a while the silence is broken by the dull sound of the ice shifting and cracking.

Just in from the sea—on a slight rise next to the runway—snowflakes fall on a row of nine snow-shrouded crosses, the final resting place of those who perished July 31, 1950, when a Royal Canadian Air Force Lancaster crashed while attempting a parachute drop. Investigators concluded that the chute got caught in the tail assembly, causing the plane to nosedive into the permafrost. Another tragedy that is well remembered is the crash of Hercules Flight 322 in October 1991.

Southeast of the runway, on a snowy plateau overlooking a frozen bay, you can see the low, dark profile of what appears to be a cargo ship trapped in ice. In fact, what you are looking at is a collection of two-storey, metal-clad buildings linked by a one-storey central corridor. As you move closer, you notice that the whole structure is on stilts and that there is a curious collection of high-frequency and very-high-frequency antennae on the roof of a grey-sided building.

Somewhere below that roof, in an area out of bounds to all but a few, is Sergeant Scott Whittingham, 43, the station's technical maintenance supervisor. Last October, he was 15 1/2 days or approximately "22,400 minutes" away from completing a three-month tour. His job in the Operations Building is to ensure the smooth operational status of the high-tech equipment. He is also responsible for the welfare of six technicians.

For the reasons cited above, Whittingham can't talk about the equipment or about the work that goes on in the Ops Building, but he can say that the equipment is nowhere near the amount once used to collect intercepts. In fact, he says today's equipment could fit into a space the size of a large bathroom.

Over in the administration building, which anchors the southeast side of the complex, Dannehl is also limited in what he can say on the subject. The word "maintaining" is key because, explains the major, that's all the technicians do. "We have a section of technicians whose primary role is to maintain the signals intelligence gathering equipment. All target acquisition, analysis and the handling of the intelligence is remoted to or from Canadian Forces Information Operations Group at CFS Leitrim."

And so what is it about Alert that makes it so relevant? The answer is location, location, location. Unlike the atmosphere over large cities, the air here is free from high-noise pollution. "Being this far north gives us the unique ability to listen to most of the northern half of the globe," explains Whittingham.

The sergeant likes his job, but there's another reason he's glad to be here. His father served here in the 1970s, as a member of the Communications Research trade. Known as 291ers, these forces members worked—along with the station's communications technicians—in the Operations Branch. "The fact dad was here gives us a bond no other family member can understand. The isolation and the loneliness of being away from family can only be truly experienced when you are put in a location like this."

Those who serve here can phone home instead of using the amateur radios of old. They are entitled to at least one free 20-minute call a day. "We also have the Internet, which gives us another line of communication with the world that was not possible in the old days."

During the '70s and '80s, says Whittingham, the signals intelligence was recorded on large tapes that would be packed up and flown south, where personnel would listen and decode them.

Down in Ottawa—at Leitrim—Major M.F. Delorey is also asked about the station's listening capabilities, and whether it shares information with other countries, namely the U.S., Britain and Australia. "As is the case with any RF (radio frequency) reception equipment, the facilities at Alert are designed to work within certain frequency bands. The range of reception is determined by the strength of the received signal. Therefore, the range of reception can vary. Unfortunately, we cannot comment on who has access to the signals obtained at Alert...."

He says Alert also operates high-frequency and direction finding (HFDF) facilities that support search and rescue (SAR) and other operations. Direction finding is performed by correlating the same signal received by two or more (a minimum of three is best) geographically dispersed locations, then using the direction from each reception point to triangulate the

location of the original signal. Delorey says Alert's location means it can provide direction-finding information for SAR operations anywhere in Canada.

For years, the station has also supported scientific research projects as well as Environment Canada weather services, including a weather station and a laboratory that has been used to help determine the effects of greenhouse gases and other pollutants on the Earth's environment.

And while McLean and Douglas don't hang their toques in the top-secret Ops Building, the two—like everybody else here—are essential to Alert. Without the met tech's weather reports, the Herc may not be able to land. And without the weekly flights, people and supplies, including the mail, would not get in or out.

And so everybody—from the kitchen staff to the people servicing the tracked vehicles—is busy helping to maintain an aging infrastructure that was built to accommodate 250 to 300 people. In addition to the Ops Building and admin offices, the main complex contains the barracks or "houses", a medical facility, cafeteria and kitchen, souvenir shop, library, chapel, radio station and mess.

The houses, which are similar to university dorms, have their own name and contain private sleeping quarters and a common room, complete with TV, a bar, fridge and stove. The rooms, which are used to host parties, are decorated to reflect the house's name. Monster house, which is home to supply and transport staff, has a coffin for a coffee table. The Zoo has stuffed toy animals.

Alert also has several outbuildings, including a power plant, water treatment facility, gym, construction engineering workshop and fire hall. There's also a vehicle storage shed that is kept just above freezing. The biggest sections are construction engineering and logistics.

Those who spend time here either volunteer or are assigned. If a volunteer can't be found, a particular unit will be asked to send someone. But the last thing anybody wants is a person who doesn't want to be here. That can affect morale.

Corporal Brad Gwalchmai, 28, of the Canadian Forces Joint Signal Regt., in Kingston, Ont., is enjoying his tour. As the station's general duties person, he reports to Station Warrant Officer Serge Ouellet. "I shovel the snow, operate some of the vehicles and pick people up on Plane Day...."

He says Plane Day is the most anticipated day of the week, but it can also be the loneliest. It's called. "It can hit you when you watch the Herc come and go and you're not on it...."

"It's rare, but when the plane gets cancelled it brings everybody down, not just those scheduled to fly out," says Master Corporal Derek Gauthier, the station's traffic officer and volunteer disc jockey. "It affects everybody. It spreads like a cold...."

Warrant Officer Helen Martin, the station's physician's assistant, says if you have good leadership and direction, morale stays high. But if you get people who don't set ground rules or other people with depression, then you could have problems. She says people are screened before they come here. It would certainly be a heck of a place to be ostracized.

Meanwhile, McLean and Douglas are out at the windsock, staring at the sky, quietly reminding themselves of their location on Planet Earth. Canada is so big and you get the sense that you're beyond the fringes of civilization, but there's noise bouncing around up there, and somebody is listening.

For an excellent description of CFS Alert, from its origins to modern times, check out <http://www.jproc.ca/rrp/alert.html>