Eyes to the Sky

IN THE MONTREAL-TRUDEAU AIRPORT CONTROL TOWER

24 Heures
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Whether it’s the middle of the night, windy or snowing, air traffic never stops. Aircraft are constantly landing and taking off. Standing 35 metres-high, the control tower dominates the tarmac at the Montreal-Trudeau Airport and those within it direct all pilot manoeuvres. 24 Heures arranged to sit at the radar screens beside air traffic controller Isabelle Pouliot.

“Golf India Bravo Uniform. Cleared for take-off runway 2-4 left. Wind 2-8-0 at 8, gusts 15.” Chinese? For most people it is, but for Isabelle, this language is clear.

Wearing her headset with microphone, she is focused on what’s happening on the runways. Each and every instruction she relays to the pilot matters.
One tower, three positions, five screens

There are 30 other controllers like Isabelle who work on a rotational basis, day and night. The large bay windows offer an unparalleled view of the airport grounds. Three runways are visible. The sun is at its peak and large mylar shades provide relief from its bright rays.

The atmosphere is calm and quiet, and the workspace is clear. Each controller is focused and in direct contact with “his” pilots. Radio communications are the only thing breaking the silence.

Under the large windows are three workstations. The tower controller provides information to pilots who have just taken off or are about to land. The ground controller manages taxiways used by aircraft but also by technical vehicles. And lastly, the clearance controller provides instructions, such as wind direction and speed, to the pilot wishing to take off. “We are all very versatile. Every day, we sit at all three positions,” explains Isabelle.

In addition to a 360° panoramic view of the Montreal-Trudeau Airport, the controller has five screens in front of him, including two radar displays (one ground, one air) to quickly detect moving aircraft. Air traffic controllers are the eyes of the pilots.

Auto-briefing

Before going up to the cab to take her position, Isabelle stops one floor below in front of two computers. “The first one gives me the day’s news so I’ll know if there are any temporary events that could affect us, such as fireworks at the Old Port for example. The route for some aircraft is slightly altered as a result,” she adds.

On the other computer, she takes a quick glance at the day’s conditions: wind, weather, runways in use. “I have in front of me 75% of the information I need to start work,” she continues.

A well-defined control zone

The Montreal Tower controllers guide aircraft within a defined boundary shaped like an enormous raindrop and measuring 960 km² above the airport.

Once an aircraft vacates this zone, the controllers pass the torch to their colleagues at an area control centre (ACC). These controllers remain in contact with the pilot during a portion of his flight, before transferring him again to another country’s area control centre. There are seven of these centres in Canada, including one in Montreal.

Uncertainty

Isabelle and her colleagues deal with the weather every day. “The only element which we have no control over!” says Isabelle, smiling. However, weather conditions are not a problem for professionals of the aviation network.
“Snowstorms are part of our lives. We live in Quebec. It requires a bit more work and control procedures, but at least it breaks the routine,” claims Isabelle. In the winter, they stay in close contact with snow removal vehicles. During a storm, maintenance is ensured on a rotational basis. “We close a runway and send the snow removal vehicles over to clear it. Then we reopen it and start the process over on another runway.”

As for traffic levels, controllers never feel overwhelmed, “thanks to an excellent flow control system,” explains Isabelle. There is no special treatment on the runway – the “first come, first served” rule applies.

Aircraft are not immune to technical incidents. But once again, controllers know exactly how to react. “There was one incident when an aircraft’s landing gear collapsed under it upon arrival. In such a case, we immediately shut down the runway and we alert the emergency services. And even though we are focusing our efforts on the emergency, it’s not as though everything else grinds to a halt. We have to keep working to serve other aircraft and remain vigilant,” explains Isabelle.

**Essential qualities**

Being an air traffic controller requires certain skills, but also requires essential qualities. “You need courage, you have to be calm yet alert, you have to be able to think quickly, know how to make decisions, trust each other and have a good team spirit,” says Ms. Pouliot. At the helm of air traffic, looking out towards the horizon, she knows she is lucky to have such a unique job in a very special location.

After 14 years on the job, Isabelle is still not tired of the challenges she takes on every day. She also admits to admiring the sunrise and sunset from the top of “her” tower with eyes as wide as in her early days.

**Rest required for an intensive job**

The job of an air traffic controller requires full concentration at all times. No detail can go unnoticed by the controller while on duty. He has to make the right decisions within a very limited time. Due to the complexity and intensity of this profession, rest periods are critical.

A controller works for approximately two hours. He then takes a break that can last from 30 minutes to an hour before returning to the tower cab. He repeats this process three times during the day or night.

As for recovery time, each controller has his own preferred method. “I usually go for a walk in the airport. I stretch out my legs and clear my mind,” confides Isabelle. “Others prefer to sleep, watch TV, or play video games.” Controllers have their own lounge for resting, where they can eat and relax on massage chairs.
NAV CANADA

Canada was the first country to privatize civil aviation control. NAV CANADA, the company that manages all seven area control centres and 42 control towers in Canada, among other facilities, is a true industry model. In 2010 and 2011, the company won an award recognizing the world’s best air navigation service provider.

Women

Women make up approximately 20% of air traffic controllers in Canada. This percentage seems to be on the rise: 35% of applicants to controller entrance exams are currently women.

A380

The arrival of the Airbus A380 at the Montreal-Trudeau Airport last April required some adjustments from air traffic controllers. In fact, the span of the aircraft (almost 80 metres) meant that it couldn’t take just any taxiway to reach the runways!