

# Shepherd of the skies

## Air traffic controllers are among the unsung heroes of aviation

By Kristine Thiessen - [South Delta Leader](#) - June 13, 2008



(Tyler Garnham, photo)

**Towering responsibility—Air traffic controllers like Melissa Fleming ensure the skies are safe.**

At Canada's fifth busiest airport it's up to about a dozen people to keep mid-air confusion and chaos at bay.

They sit as teams of three 50 feet above ground with the best view in Delta— a 360 degree glassed-in room at the top of NAV Canada's air traffic control tower at Boundary Bay Airport.

Melissa Fleming is one of these unsung heroes—a shepherd of the skies. This afternoon the air traffic controller takes a seat on the far right of the three assignments, in the outer position which monitors and organizes incoming and outgoing planes within the surrounding five to six miles.

In the span of a few minutes she talks with a helicopter pilot on a test flight and the pilot of an aircraft inbound for landing. She checks her radar screen to see the positions of the aircraft, but to avoid the radar's four second delay she can also peer through her binoculars. And she records key information shared with her co-workers by jotting on a long, thin, green flight-in-progress strip.

During a shift Fleming will take a turn at each of the three hot seats: the outer position, inner and ground. The inner position grants take-off and landing clearance, while the latter deals with taxiing planes.

Air traffic control is known for being one of the world's more stressful careers. Consider that on an average day the controllers at Boundary Bay will see 600 to 800 take-offs and landings, and on a busy day up to 1,200.

“Every 20 or 30 seconds there's a movement,” says Fleming.

But the newly minted controller takes it all in stride.

“It's a really fun job. This is my calling.”

### **What it takes**

Fleming's involvement in aviation began at age 13 with the air cadets in Ontario. She achieved her pilot's license as a 17-year-old and began flying recreationally, which she still does out of the Boundary Bay airport.

As a pilot with direct contact with the people in the towers, they were not professionals she took for granted. And they became even less of an enigma after she took a tour of a tower one day. It wasn't long before Fleming enrolled in NAV Canada's training centre in Cornwall, Ontario.

What came next was four and a half months of training in the classroom and with a simulator, learning the general rules of air traffic control. The profession requires excellent spatial awareness, superb judgment, the ability to stay calm under pressure, and technical savvy.

“You have to be self-confident, decisive and really driven,” says Fleming. “It's always a changing environment.”

She also had to be willing to travel—controllers are staffed by NAV Canada based on what is perceived to be the best fit and where positions are available. In August Fleming found herself a Surrey resident with her first job at the South Delta tower.

She then had to commit to memory the policies specific to Boundary Bay, which encompasses the air space three miles north of the airport, three miles south, three miles west, six miles east and up to 1,500 feet. (The Delta Air Park operates below 1,000 feet and is outside NAV Canada's air zone.)

Fleming is discussing her job in the tower training room so not to distract her co-workers upstairs. One skill she has picked up is she can list the locations of the towns and cities on the maps pinned to the wall behind her.

Take Courtenay for instance, she says. "I need to know it's on the island, and what side of the island it's on (east)."

After a week in the training room Fleming spent months on the job with an instructor by her side. The 24-year-old has been a fully licensed controller since April.

With the safety of those in the sky at stake, what happens if a controller isn't vigilant?

For Fleming, the question is incomprehensible. "Part of the training is always paying attention."

But she adds, "So much space is built in that if there was a mistake there's time to correct it."

It's a controller's duty to ensure a bubble of about two miles between each aircraft. If a plane is traveling a mile a minute, well, "two minutes is a really long time to rectify things."

In addition to the planes in the air there are the vehicles and aircraft on the ground. And Boundary Bay is home to about a dozen flying schools. Focusing on these movements are the responsibility of the ground position.

"It's nice that everyone is on the ground but it gets busy," says Fleming. There could be 20 students in a class all in need of taxiing instructions.

And when they want to practice landings and take-offs—circuits—the inner position must integrate their training with the outgoing and incoming craft.

Working together as a team relieves much of the stress. To ensure smooth flow of traffic, they fill in and pass along the flight-in-progress strips which list the type of aircraft and what the pilot's plans are.

They also communicate with engineers and staff at nearby airports and towers. To ensure clarity of communication when transmitting to pilots, they communicate using the phonetic alphabet (e.g. Alpha, Bravo, Charlie).

But the key words are safety, efficiency and orderly, says Fleming. There's no other way to move 1,200 planes a day.

### **Life-long love**

NAV Canada tower manager John Dicknoether has been in air traffic control for 27 years.

The job has changed dramatically over the years with improvements in technology, such as the advent of radar.

"It was a lot more work intensive because you had to be looking out the window and constantly spotting traffic to make sure they were where they said they were," says Dicknoether.

Fleming says Hollywood movies such as *Pushing Tin* have added to the perception air traffic control towers are constant high-stress environments.

"There're stressful situations," Fleming concedes, "but it's not constant stress."

And she thrives on the knowledge that when she arrives at the tower on 72nd St. for her shift, each day will bring new challenges.

"That's part of the reason I love the job."

Says Dicknoether: "Most of the people who get into the profession really enjoy the challenge, and most people stay with it their whole lives."

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