



Robert Markowitz Photo



# OUT OF CONTROL

✶ BY BEN FORREST

Chris Hadfield hit the F/A-18 throttle so hard his hand split open and bled.

It was the early 1990s, and the decorated Royal Canadian Air Force (RCAF) fighter pilot and future astronaut was an exchange officer with the U.S. Navy at Patuxent River Naval Air Station in Maryland, pushing the Hornet beyond its known limits.

The aircraft tumbled intentionally out of control and fell 10,000 feet in 30 seconds before Hadfield pulled it out of a gyrating descent that could easily have wrecked the jet and ended his life.

Still, he believes the result justified the risk.

At the time, too many F/A-18s were crashing, and the Navy didn't understand why. Hadfield pressured his superiors to run an intense out-of-control testing program to find a better way forward. After two years and hundreds of out-of-control spins, they knew enough to rewrite emergency flight procedures on the type and vastly improve

pilot safety. Canada, the U.S., Australia, and several other F-18-flying nations benefitted from those dangerous manoeuvres.

"That combination of deep understanding, feel for the airplane, necessity, higher purpose, and a good result — I find that infinitely worth taking a risk for," Hadfield told *Skies*.

Yes, you wonder — but wasn't he terrified?

"I learned a long time ago that things aren't scary," he said. "Things are dangerous, but if you choose to be scared or not, that's up to you. And the greatest antidote for fear is competence. I would much rather go through life competent than afraid."

Hadfield has been called the most famous astronaut since Neil Armstrong. His best-selling books, in-demand speeches, and massively popular YouTube videos filmed aboard the International Space Station, have inspired millions of children to shoot for the stars.

Before all that he was a military pilot, and before that — a pilot's son.

Hadfield's father, Roger, was the first flight instructor employed at Sarnia Airport in southern Ontario, where the family lived in the late 1950s and '60s before moving to a farm near Milton.

Roger carried his sons in his snug, single-engine Piper J-3 Cub on flights over the region's lush farmland abutting Lake Huron and Lake St. Clair. Hadfield's first aviation memory is from that sturdy, utilitarian two-seater with no electrical system, known for its simplicity and reliability. Roger also flew Boeing B-17s for Kenting Aviation and was a corporate pilot for Dow Chemical before Air Canada hired him. He spent several years as a captain with the airline and retired with 25,000 flight hours.

In 1969, when Hadfield was nine years old, he famously resolved to become an astronaut after watching Armstrong walk on the Moon. He made every decision afterward in view of that goal, including joining the Royal Canadian Air Cadets and earning his glider pilot's licence at age 15.

There was not, and still isn't, a prescribed path to space, but many astronauts are pilots first — so Hadfield learned to fly with a rare level of courage, skill, and mechanical insight.



Photo courtesy of Chris Hadfield



Photo courtesy of Chris Hadfield

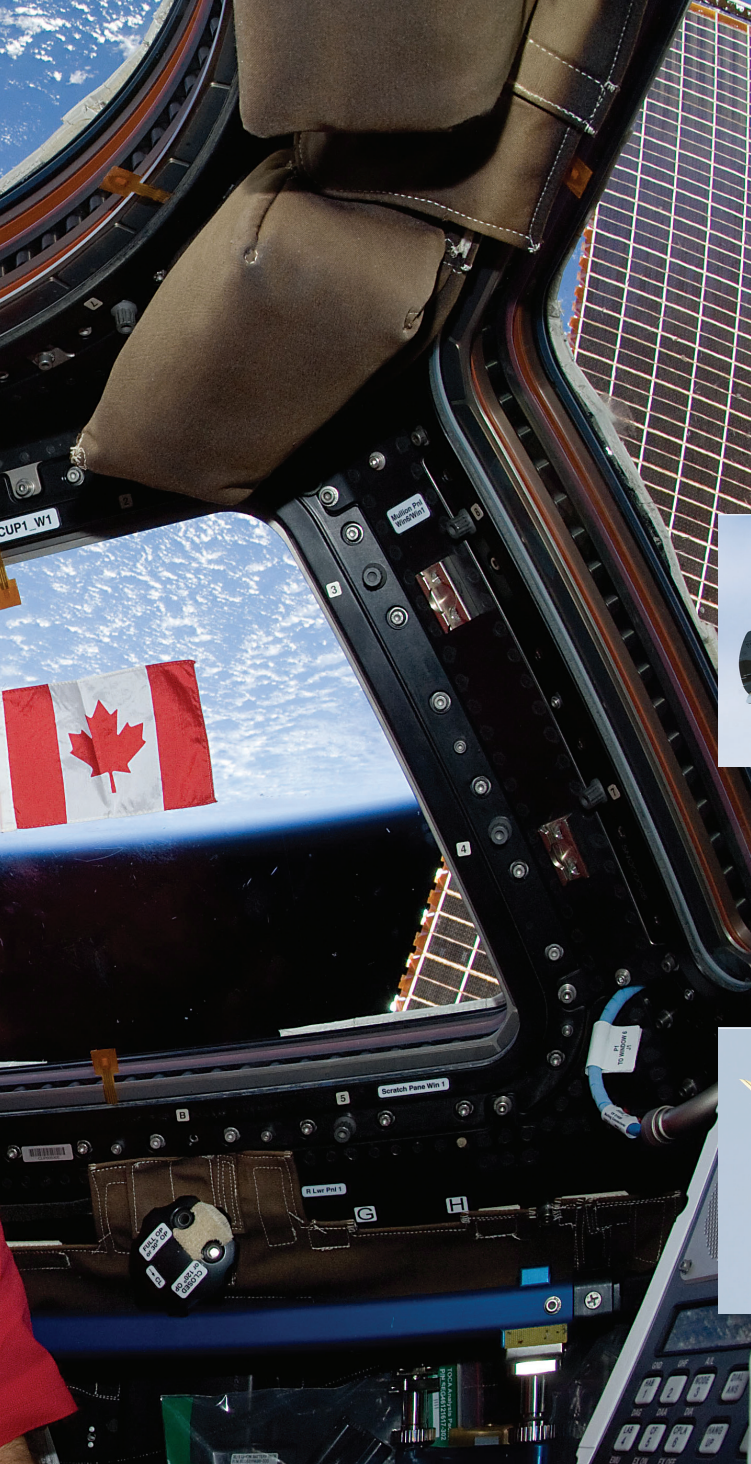
He enrolled at Royal Roads Military College in Victoria, B.C., and then moved to the Royal Military College (RMC) in Kingston, Ont. In 1982, he graduated with honours from RMC with a bachelor of science in mechanical engineering.

Then came basic jet training in Moose Jaw, Sask., and fighter training at 4 Wing Cold Lake, Alta., followed by three years with 425 Tactical Fighter Squadron in Bagotville, Que.

In the middle of the night, Hadfield and his fellow pilot, Eric Matheson, would be scrambled to intercept Soviet aircraft practicing tactics in Canadian airspace. One notable achievement from that tense, fraught time: In June 1985, Hadfield completed the first CF-18 intercept of a Soviet Tupolev Tu-95 “Bear” bomber, off the coast of Labrador.



Chris Hadfield and fellow astronaut Yuri Lonchakov. Photo courtesy of Chris Hadfield



IN A CAREER THAT STRETCHES BACK NEARLY FIVE DECADES, CHRIS HADFIELD HAS CONTROLLED ABOUT 100 UNIQUE TYPES OF FLYING MACHINES. HERE ARE HIS FAVOURITES.



### **SUPERMARINE SPITFIRE MK. IX**

“Just a beautifully designed airplane — incredibly capable, and very historic,” he said. “It helped win the Battle of Britain and thus helped win the Second World War ... to have it be such a sweet, beautiful, capable machine to fly, it ticks all the boxes.”



### **CANADAIR F-86 SABRE**

“It’s just you, an engine, wings, and a bubble canopy — you can’t even see the airplane, almost,” he said. “It’s just great freedom of flight and a beautifully-handling machine.”

Hadfield’s earliest memory of watching jets fly involves gold-painted Sabres under the command of RCAF Golden Hawks aerobatic pilots. “It looked like this beautiful, big, amazing, glinting, magical machine,” he said. “To think there were people inside each one of those airplanes, making that happen, that made it doubly sweet for me to fly it.”

He repeated the task seven more times, but couldn’t talk about it until decades later. In 1988, he topped the class at the U.S. Air Force Test Pilot School at Edwards Air Force Base in California, and served three years at Patuxent River, where he flight-tested F/A-18 and A-7 jets.

In 1991, he was named U.S. Navy Test Pilot of the Year; a few months later, the Canadian Space Agency named him one of four new Canadian astronauts out of 5,330 applicants. The rest is well-worn history, much of it filmed and streamed millions of times online.

“Flying in space became a very clear purpose,” said Hadfield. “If my life went perfectly, that’s what I would do:



### **SOYUZ TMA-07M RUSSIAN SPACE- CRAFT**

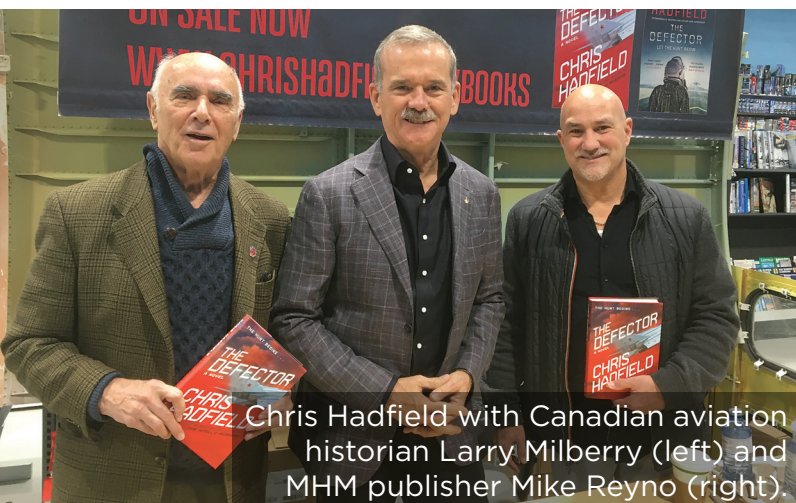
“It’s so incredibly capable,” said Hadfield. “You launch from the Earth, and you can fly it through space, dock with a spaceship and then you fly it back down through the atmosphere. You can fly manually all the way down to where you deploy the parachute to land ... it’s a wonderfully evolved, capable flying machine.”



Photo courtesy of Chris Hadfield



Photo courtesy of Chris Hadfield



Chris Hadfield with Canadian aviation historian Larry Milberry (left) and MHM publisher Mike Reyno (right).

I would be an astronaut and fly spaceships. So, it didn't consume me at all, it just gave me a very clear set of criteria with which to help make all the little daily decisions in life."

In space, Hadfield flew three missions — twice on a NASA Space Shuttle, and once on a Russian Soyuz spacecraft. His list of other achievements could fill several pages of this magazine.

By any standard, Hadfield is one of the most accomplished Canadians in history, and a remarkable example of fulfilled human potential. Aviation helped him get to space and back, and it remains an important part of his life today.

As a private pilot, Hadfield owns and flies a single-engine Piper PA-24-250 Comanche, frequently carrying his partner Helene to Florida, where she's pursuing a graduate degree. In rare moments, he flies a Supermarine Spitfire Mk. IX and North American Harvard 4 aircraft from the Vintage Wings of Canada collection in Gatineau, Que.

"I'm very much involved in aviation and aerospace," he said. "It's a big part of what I do every day ... and who knows, I may fly in space again."

If that seems like an audacious statement from a soon-to-be 65-year-old, consider everything he's accomplished so far, and note the increasingly low barriers to civilian space travel.

"The bar of entry to flying in space, when I was a kid, was infinitely high — impossible," said Hadfield. "Canada didn't have astronauts, and yet I flew in space three times." ✈



**Ben Forrest** is the online editor at MHM Publishing, and works across *Skies*, *RCAF Today*, *Vertical*, *Vertical Valor* and *Insight* magazines.

# N A CAPTAIN IN THE North

**MELISSA HANEY IS THE FIRST FEMALE INUK CAPTAIN TO FLY FOR AIR INUIT. HER STORY IS AN INSPIRATION TO THE NEXT GENERATION OF AVIATORS.**

**BY BEN FORREST  
PHOTOS COURTESY OF MELISSA HANEY**

Melissa Haney took off into blue skies out of Salluit, a tiny coastal village on Sugluk Inlet, where northern Quebec's sprawling, snow-covered tundra meets the Arctic Ocean.

Her view from the right seat of a twin-engine De Havilland Twin Otter 300 was almost too good to last: Bright, placid, beautiful, with no wind to speak of—a bit like the opening scenes of a Hollywood disaster film.

Haney, the first female Inuk captain



to fly for Air Inuit, set the Twin Otter down on wheels at an inland camp, picked up a handful of passengers, loaded their four-wheel ATV into the plane's aft compartment, and set out on a return flight toward Salluit.

Then, the conditions changed in a hurry. Thick fog enveloped the aircraft, making it impossible to land at the Salluit airport. Unfazed, Haney circled back inland and found a break in the clouds and set the aircraft down safely.

"Because we're on the Twin Otter, you can land pretty much anywhere," said Haney, 42. "So we found a place on the tundra where the weather was nice ... and we spent the day there.

"We went hunting, we made a fire, we had tea and some snacks. At the end of the day the weather was good, so we packed up and went back to Salluit. That's one of my best memories."

There's a saying about Canada's coastal climates that applies here: If you don't like the weather, wait a few minutes. As a seasoned Northern pilot, Haney knows the reverse is also true. But that unpredictability is far from a burden; for Haney, it's one of the perks of the job.

"I really enjoy it," said Haney, who has 1,500 flight hours on the Twin Otter, 7,000 hours on the De Havilland Dash 8, and 1,000 hours on the Boeing 737-200, all with Air Inuit.

"That's what makes it fun."

If you told a younger Haney she'd be doing this job—piloting charter, cargo and medevac flights all over the Nunavik region of Quebec, landing jets on gravel strips and engaging in random weather-induced adventures—she might not have believed you.

"It never even crossed my mind," said Haney, a teacher's daughter who lived in remote Northern communities until age eight, when she moved to Quebec's eastern townships.



**“I REALLY ENCOURAGE YOUNG PILOTS  
NOT TO USE NORTHERN OPERATORS AS A STEPPING STONE  
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“I had no friends or family who were in aviation, so it was something I never knew that I could do. That’s another reason why I want people to see me in that role. Representation is important, because somebody might have that dream ... they can turn to you and be like: ‘If she did it, then I can do it as well.’”

Haney came to aviation entirely by accident. As a university student in the early 2000s, she was unhappy at school and needed a change. A friend mentioned Air Inuit was looking for flight attendants, so she applied and got the job.

Over the next year and a half, she chatted with Air Inuit pilots from the jumpseat,

soaking up knowledge and drinking in majestic Northern scenery through the cockpit’s windscreen.

“I was just in awe of what they did,” she said. “There weren’t a lot of pilots when we started, so I really got to know the pilots who were there. And seeing them three times a week, they would just talk me through (the life of a pilot) and give me advice.”

Haney peppered the pilots with questions. How did they learn to fly? How long did it take? What’s the process of getting a commercial instrument flight rules (IFR) licence?

“There were a few Inuit pilots working with us,” she said. “A lot of them gave me the courage and the words and said that I should go and try [to get my pilot’s licence] — so I did.”

Haney took initial flight training at Cornwall Aviation in eastern Ontario and completed ground school at Air Inuit a few months later. She has spent her entire flying career with the airline, starting on the Twin Otter before graduating to the right seat of the Dash 8.

Haney paid her dues as a first officer and eventually transitioned to the left seat, becoming a Dash 8 captain at age 35. She’s since moved up to the Boeing 737, and loves flying the bulky-but-nimble airliner.

“I was very grateful to fly [the Twin Otter] out of flight school because it’s a great learning plane,” she said. “It really was a good place for me to learn from more experienced captains, learn IFR, learn some pretty good crosswind techniques.



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“And the Dash 8, for sure, it’s the plane that I had a lot of personal affiliation with. It was a place where I got new milestones, new promotions, so for me it was more of a sentimental plane. But I’m really, really loving the 737-200. Where else can you take a jet and land on a gravel strip? Out of all three, I’m really enjoying where I am right now.”

Haney has embraced her status as a role model for Inuit young people—especially young women—and views her work as an act of service to Northern communities where aviation provides critical access to food, medical care, and many other types of supplies.

“You have to anticipate that there will be a life-or-death situation here and there,” she said. “It’s more than a job. There is a mission ... it’s a mission for us to get people and goods into the communities that they need.”

At a time when pilots are in short supply, Northern aviation is in a precarious position. Remote communities rely on air travel as a lifeline; many literally cannot live without it. And sadly, new pilots are often inclined to move south after one or two years of paying their dues.

Haney is among the industry’s strongest advocates for putting down roots in the North, thanks in part to the variety of flight schedules, strong work-life balance, and ability to raise a family while managing a rewarding career.

“I really encourage young pilots not to use Northern operators as a stepping stone to get to somewhere else, but to come and embrace it,” she said. “If you are interested or kind of on the cusp of [figuring out what you] should do, go—ask questions, get a mentor, and just open your eyes. You can have a really great career here.” ✈️



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# BRINGING HISTORY TO

THE WORK OF AN AVIATION CURATOR IS NEVER DONE, BUT ERIN NAPIER IS DIGGING DEEP TO SHARE THE STORIES OF ROYAL CANADIAN AIR FORCE VETERANS FROM THE SECOND WORLD WAR.

BY BEN FORREST  
CANADIAN WARPLANE HERITAGE MUSEUM PHOTOS

The pristine, lacquered-enamel hangar floor at Canadian Warplane Heritage Museum is lined with one of the world's most historically important aircraft collections from the Second World War. It holds more than 40 vintage warbirds including Vera, the famously airworthy Avro Lancaster bomber, and all manner of secondary attractions: de Havilland Tiger Moths and a Fleet Finch, a Noorduyt Norseman, a Douglas C-47 Dakota, and a Supermarine Spitfire fighter, to name a few.

The truth is, most visitors are here for the planes.

This capacious, 106,000-square-foot building at John C. Munro Hamilton International Airport draws a huge number of avgeeks, history buffs and other travellers to southern Ontario each year.

But along with the airframes, there are hundreds of human stories to explore; and for the bulk of her career, CWHM curator Erin Napier has devoted herself to documenting them for posterity.



# Life

“Without the people, the airplanes wouldn’t fly,” said Napier, who has served as CWHM curator and collections manager since 2013.

“These stories are timeless in the sense of human sacrifice, human connection, courage, valour and sacrifice; and it wasn’t just the people fighting, it was the sacrifices of the home front as well.”

Napier joined CWHM as a curatorial assistant about 10 years after graduating from Brock University with a degree in visual arts. She had no personal connection to aviation at the time, but studied the war period extensively in university and became fascinated with the stories of airmen and airwomen in the Royal Canadian Air Force (RCAF).

“I was really intrigued with their contribution,” said Napier. “It was the risk-taking the Air Force had, the technology of the aircraft, the training they went through—it was such a long process for training—and I was interested in all of those factors.”



As curator and collections manager, Napier is responsible for building exhibits around more than 12,000 smaller artifacts in the museum collection—everything other than the aircraft themselves.

Hundreds of veterans and their families have donated RCAF uniforms, helmets, goggles, maps, navigation equipment, original film footage, wartime photographs, and logbooks. Her job is to tell accurate,

engaging stories with those artifacts, often by speaking directly with donors to understand each item’s historical significance, contextualize it, and shape nonfiction narratives that honour their contribution.

“I love making that human connection, and I get to quite often,” she said. “It’s really important to me to meet with [donors] and understand their family history, because it really does help me relay the story to the public in a way that’s best representative of that person.”

Napier grew up hearing wartime stories from her grandfather, who served as a stoker on a Royal Canadian Navy frigate during the Second World War; and her grandmother, who worked in a bomb-making factory in the Niagara community of Port Colborne, Ont. Those stories piqued her interest and prompted further study in school.

“They were proud of their contributions, but humble,” she said. “I think they were trying to teach me and my sister and cousins the importance of hard work, of sacrifice, of getting through hard times. They always put a positive spin on it, and I feel like we all have a really positive outlook because of the outlook that they taught us.

“My grandmother is still with us, and I still love hearing her stories today. You can really relate to these kind of sacrifices and the human element in any time period, I think.”

Along with traditional exhibits, Napier has increasingly turned to modern technology to share the stories of RCAF personnel. A key example is the new Making Freedom Fly digital exhibit at CHWM, which uses life-sized avatars of real Canadians that can speak and answer questions.

Visitors converse directly with these avatars, who share personal recollections from the CHWM archives. The exhibit also features a series of digitized and colourized historical films projected onto an immersive dome; and an interactive HD cinema feature.



“TEACHING (MILITARY HISTORY) TO A YOUNGER GENERATION IS SO IMPORTANT ... BUT DELIVERING IT TO THEM IN A WAY THAT THEY CAN RELATE.”

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Soon, the museum hopes to launch an augmented reality exhibit in and around the iconic Lancaster bomber, allowing visitors to explore the aircraft’s engineering and technology. It’s all part of an ongoing challenge to reach new generations in ways that make sense to them, while doing justice to the memories of real Canadians who fought and flew to preserve freedom.

“Teaching that to a younger generation is so important ... but delivering it to them in a way that they can relate,” said Napier. “I’m hoping we can do that.”

One of the digital exhibit’s avatars is Capt David Goldberg, a Spitfire pilot from 416 Squadron whom the Axis powers shot down over France in 1944. He walked

through the Pyrenees mountains with help from the French, a journey fraught with risk.

His adventures were collected in a 2015 book of personal anecdotes, and the virtual exhibit brings those stories to life in a new and vivid way. Students who might be reluctant to read his story on a page or a piece of poster board can now interact with it visually and vocally.

“He was an evader, and he has a really amazing story to tell,” said Napier. “After he passed away, his family donated his wartime memorabilia to the museum.”

The challenge of bringing history to life is unrelenting, and rarely easy. In many cases, Canadians are less committed to understanding the past than people in other countries. Museums, curators and historians are always looking for new ways to make allegedly stodgy material exciting.

One of the main benefits of telling RCAF stories? The material is never boring. It’s rich with cinematic detail, much of it uncovered and unknown to a larger audience. Every day, Napier sits with those stories, thinking of new ways to honour people who worked at the vanguard of an aviation revolution that shaped our nation and helped define our identity.

So, after all this time, has she developed a passion for aviation?

“Absolutely, yes,” she said. “Coming into this position, I didn’t know anything about aviation or airplanes; it was strictly the history side that I was aware of. But I’ve certainly learned, and continue everyday. There’s always something to learn.” ✂



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