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Illustrations

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View from the runway at Grise Fiord

Steve Kaizer and Rory MacNicol in front of

Twin Otter C-GPAO

Twin Otters with skis

Steve Kaizer bringing C-GPAO out in the morning

Looking for the expedition at 87 degrees north

Expedition at 87 degrees north getting ready for a supply drop

Rescuing the dog team

Tight quarters, but safe

Loading the dogs

Sleds against the wall, dogs in the middle

One end of the runway at Grise Fiord

The other end of the runway at Grise Fiord

The Narwhal Hotel

Dan Minsky

Sign at Keesler Air Force Base

A C-130 equipped for the Fifty-third Weather

Reconnaissance Squadron

Briefing for the day's flight to Hurricane Ivan

Clouds over the Caribbean on the way to Ivan

Clouds inside Ivan

A note passed during the ride in the storm

Maj. Dallas Englehart

The dropsonde station in the back of the C-130

View coming up the stairs to the flight deck
Have a nice flight
MeritCare's Bell 222 on scene in eastern North Dakota
On scene with a snowmobile accident
Tim Vreeman over the Minnesota prairie
Dan Ehlen
Bell 222 in the hangar at MeritCare in Fargo, North Dakota
Approaching the rooftop helicopter deck at MeritCare
Fixed-wing and helicopter crew
Tanker 10
Earl Dahl
View out the nose bubble of Tanker 10
Tanker 10 landing at Billings, Montana
Tanker 10, while a SEAT passes below
Tanker 00
SEAT 407 at the loading pit
In the pits, loading a SEAT
Allen Edmonds
View of a racing grass fire

Introduction

* * * *

The checklist looks easy, and we go through the steps in order. Control wheel lock: remove. Ignition: off. Master switch: on. Fuel-quantity indicators: check. Flaps: down. Master switch: off. Fuel-shutoff valve: on.

Having squeezed myself into the left seat of a Cessna 152 airplane, a two-seater, white with red stripes, N5329B (pronounced “N five three two nine bravo”), I have to pull my legs back up to my chest to fold them out the door and continue the check.

On the right wing: aileron free and secure. Flaps: secure. Wing tie-down: disconnect. Main wheel tire: inflated. Brakes: not leaking.

Mark Malmberg, my flight instructor, six foot two or three and thin, and sixteen years younger than I am, hands me what looks like a shot glass with a small stem in the middle, and I push it into a sump valve for the wing fuel tank. We both look at the blue aviation gas that fills the cup. No water. No sediment. Then, with a foot on the wing strut and another against the nose, I climb to reach the top of the wing and open the fuel tank. Mark hands me another instrument, a long, narrow glass tube with a hollow center and gallon indicators on the side. I put the tube into the gas tank, and when it hits bottom I put my thumb over the open top to seal the liquid in. Eight gallons on that side.

“Perfect,” Mark says.

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At the nose, we continue. Engine oil level: five quarts. Fuel strainer: another look for water or junk. Alternator belt: check. Air intake: check. Nose wheel and tire: check. Propeller and spinner: check.

“Wait,” Mark says. He runs his hand over the end of one propeller blade. Small scuffs arc the end of the blade, and then there is a small bend in the tip. Mark looks at the other blade. It’s clean and straight. “We need someone to look at this,” Mark says.

Even though it’s lunch hour, a mechanic comes out, as does one of the other flight instructors. No instructor has flown this plane for more than a week. It’s all been private rentals. Still, the mechanic says, looking at the good blade, it doesn’t look like it was hit while spinning. Mark mentions that the scuffs are the same color as the equipment the line men use to move planes around. Maybe someone just ran into it, he suggests.

“Are you going to say it’s okay to fly?” Mark asks.

“I’m not making *that* call,” says the mechanic.

Then the chief mechanic comes out. He runs his hand over the bend. He agrees that the bend looks like a hit from a line truck. “Sorry,” he says. “We should fix this before you fly.”

We reconnect the tie-downs, and close the doors.

“Sorry,” Mark says.

It’s a beautiful day for flying. Overhead, bright sun and little wind. Small cotton-ball clouds. Other private planes take off and land in front of us. We don’t even get the engine started. That bend could shake the engine right out of the plane. But already, I think, I’ve learned something. I saw that bend and those scuffs. Nearly everything I own has similar evidence of age and use and effort. I would have thought, and did think, nothing of it.

* * *

For as long as I can remember, I have been watching airplanes. Craning my neck when they have been far overhead, pausing

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near airports to watch them take off or land, reading about them in waiting-room magazines and books, stopping to scan the sky when my ears have recognized the sound of a prop working the air, I have wondered what it would be like to fly. There have been moon-filled nights on the highways when I've felt the miles under each tire and I've pulled back just slightly on the steering wheel, imagining the easy lift, the nose of my Jeep tilting toward the sky, smiling at the silly hope.

On my computer, I've flown everywhere from Kitty Hawk to the Gamma Quadrant. I've flown everything from a balloon to the SR-71. I can talk about wing loading, weight and balance, STOL kits, scramjets. I can talk about missions, too. Helicopter rescues in oceans or jungles, reconnaissance missions in storms, research above seventy thousand feet. And I can sound like I know what I'm saying. But in truth, I know almost nothing. What I know, I know from books. What I know lacks any kind of experience, any kind of truth that matters.

I know the planes and the helicopters are there. I've seen the pictures and read the articles. I know what they do. But I do not know the feel of the thing in my hands and under my feet. I know what the missions are, but I have no idea what they are like. And I am curious—deeply, ferociously curious. So I am learning to fly. And I am tagging along.

This is a book about extraordinary flying. But this is not a book about fighter pilots or astronauts, the easy stories of fast drama, hero making, or tragedy. This is book about the more ordinary flying, in conditions that would keep fighters locked on the carrier deck and rockets glued to the launchpad. What crawled under my imagination when I was very young were the stories about flying in places no one should be flying. Hurricanes. Firestorms. Deep engine-killing cold. What crawled under my imagination, and stayed there, were the stories about rescue missions, or the long, lonely flights just for information to keep other people safe.

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What is it like to fly this way, I wondered? Who are these people?

* * *

Running errands all day. I drop off a roll of film to be developed and turn my Jeep toward the airport. I need the computer disks for the ground school and my own headset for the airplane. And I swear this is the truth—too good to be made up. The minute I turn the Jeep toward the airport, National Public Radio brings me a rendition of *Also Sprach Zarathustra*. The theme from *2001: A Space Odyssey*.

I am about to get the computer disks to help me fly, and behind the dramatic music I hear the frighteningly calm voice of Hal: “I’m sorry, Dave. I can’t do that.”

* * *

Mark and I, finally flying, are going through the early basics. Climbing turns. Descending turns. Flying straight and level. We put the flaps down, pull the engine power back to idle, and practice best glide speed. We talk about how to avoid the geese that appear over the runway just before takeoff.

It’s another soft and bright summer day. I watch cars on gravel roads lift plumes of dust, and then watch those plumes move across fields. I watch the way sunlight glints off river water and ponds. I watch kids on soccer fields, and, amazed, at four thousand feet I watch a red-tailed hawk soar another thousand feet above me. The plane is easy in my hands.

“See?” Marks says, teasing. “Nothing to it!”

Suddenly, the radio gets interesting.

“I may have to switch over to emergency,” a voice says calmly.

Mark and I grow quiet and look at each other.

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“I can see the highway patrol,” the voice says.

“It’s not the plane,” Marks tells me.

We listen as the pilot leads police to some truck speeding away. But when we land, no one at the flight school has heard the radio traffic.

The next morning’s newspaper tells the story of a crop duster assaulted by his drunken boss at the airfield. The pilot took off and then called the police. The boss drove away, and the pilot followed him in the plane. When the police showed up, the pilot directed them from the air.

* * *

Bad weather descends onto this part of the Dakota border, and most planes are grounded. Forty-knot winds press the windows of my house, and fat rain screams by horizontal to the ground. Across town, however, the commercial jets are still flying.

At home, I am in a large chair and hold the books and the journals, the voices that seem to echo the sky:

The price of their ambition is a life closer to death; they suffer more heart attacks and aneurysms and ruptures than any other living creature. It’s expensive to fly. You burn out. You fry the machine. You melt the engine. Every creature on earth has approximately two billion heartbeats to spend in a lifetime. You can spend them slowly, like a tortoise, and live to be two hundred years old, or you can spend them fast, like a hummingbird, and live to be two years old.

—Brian Doyle, “Joyas Voladoras”

I am only an amateur, and I shouldn’t be talking.

But I can’t help talking. You take the air: the thin, substance-less air that can be made to bear a man; you take America; and you take an airplane, which of all the works

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of man is the nearest to a living being—you take those things and mix them up, and they will act as a drug which will knock all proper reticence right out of you.

And so, here I go talking.

—Wolfgang Langewiesche, *America from the Air*

Tom taught me in a D. H. Gipsy Moth, at first, and her propeller beat the sunrise silence of the Athi Plains to shreds and scraps. We swung over the hills and over the town and back again, and I saw how a man can be a master of a craft, and how a craft can be master of an element. I saw the alchemy of perspective reduce my world, and all my other life, to grains in a cup. I learned to watch, to put my trust in other hands than mine. And I learned to wander. I learned what every dreaming child needs to know—that no horizon is so far that you cannot get above it or beyond it. These I learned at once. But most things came harder.

—Beryl Markham, *West with the Night*

Morning after morning, a flyer sat here and felt of a sudden, somewhere inside the vulnerable man subjected to his neighbor's surliness, the stirring of the pilot of the Spanish and African mails, the birth of him who, three hours later, was to confront in the lightnings the dragon of the mountains; and who, four hours afterwards, having vanquished it, would be free to decide between a detour over the sea and a direct assault on the Alcoy range, would be free to deal with storm, with mountain, with ocean.

—Antoine de Saint-Exupéry, *Wind, Sand and Stars*

What is the hope or the need that compels us into the air? Why do I have this desire to fly? Why do small children make paper airplanes, and why do adults take lessons when they have no wish to become commercial pilots?

There is still, I think, in most of us, the urge to explore.

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* * *

Hector International Airport, in Fargo, North Dakota, is home to Mark and the 152, any number of private airplanes of all sorts, the Fargo Flight School, a company called Weather Modification—one of the last serious cloud-seeding operations that works all over the world—an avionics company and maintenance company, a commercial terminal for Northwest and United and sometimes others, and also the F-16s of the 119th Fighter Wing, the North Dakota Air Guard, the Happy Hooligans. It can get to be a busy place.

A clear-sky afternoon, and Mark is helping me smooth out my landings. We're in the pattern, which only means we're flying a rectangle around the airport and each time coming in for a touch-and-go landing. My brain knows how to land. I can recite the rules. But it takes some time to get the feel of the dance. Aim for the runway numbers. Watch airspeed. Learn by sight where to level off and when to flare.

We turn from the base leg of the approach to final, a long final approach for us as we had to wait for some departing traffic, and I'm getting set up when suddenly the tower clears three F-16s to cut in front of us and land. Literally dropping out of the sky from well above us, the jets loop into the pattern like curveballs thrown from Olympus.

Mark can hardly stay in the airplane. "Wow! Look at that!" His excitement is huge in the plane. I almost ask him if he'd like to help me peddle faster to catch up. "I've got to remember to bring my camera!" he exclaims. "I mean, you'll never see that again!"

Mark strains against the seat belt to watch each jet arc into view and then land. We are in slow flight, an airspeed of fifty-five knots into a headwind that makes our ground speed a fair bit slower. The tower clears a military tanker to take off in front of us, and then the tower gives us an advisory for wake turbulence.

No kidding, I think.

1. *The Air in Resolute*

* * * *

Before some adventures, you stare at the maps. There is a long dreamtime first. You find yourself listening to stories, some more closely than others. And what fills the quiet moments is a kind of wondering, the kind of wondering that turns into hope, and then the kind of hope that turns into ambition. That ambition turns into resolve, which turns into planning, and then suddenly it seems, although it's been years coming, you find yourself standing on the edge of something strange and original. Half scared. Half so very much at home you wonder if you can ever go back.

This morning I am on First Air flight 860, a white Boeing 737 with the old torpedo-shaped engines. A Canadian flag is painted just behind the cockpit window. On the tail, an Inukshuk, flat stones stacked into a human shape with arms outstretched, rests on ground before a brilliant blue sky. We are leaving Ottawa and heading toward Iqaluit, the capital of Nunavut, on Baffin Island, Canada. 1,298 miles north. Latitude: 63°45'36" N. Longitude: 68°33'00" W. And while the weather this morning in Ottawa is partly cloudy and warm, according to the forecast it's 2°C in Iqaluit now, and snowing. It's the second of June. And after Iqaluit, I am going still a good bit farther north.

We push back from the gate, and the flight attendants act out the safety procedures while recordings in English, French, and Inuktitut play one after the other through the speakers. Then,

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with the familiar roar and rush of the engines, the jet is in the sky and we are on our way. The captain turns off the seat-belt sign, and the flight attendants come through the cabin and hand out newspapers, the *Ottawa Citizen and Global Mail*, as well as the trilingual *Nunatsiaq News*. Headlines of politics and scandal and local people trying to do well.

But I cannot escape the view outside the window. The landscape of Ontario and then Quebec is rich in green forest and lakes and rivers, beautiful, really, from the air, as my eye tries to play connect-the-lakes-with-the-rivers. Roads dwindle and then disappear entirely. The land becomes rocky, changes from green to brown. Taller hills begin to emerge between the lakes and streams. It's nearly impossible to imagine the Hudson Bay Company or the Native peoples thousands of years before them finding their way in this land, the struggle from point A to B, or the hope in simply setting out from A, when B has not been discovered. Yet one of the early-learned joys of flying is how even the smallest bit of altitude changes forever the pilot's perception of distance. It takes no time at all, and on a clear, fine day not even very much effort or thought, to fly over some hills or a dozen lakes and streams. The world is always as big as our capacity to imagine it, and flying makes it easy to imagine a whole lot more.

However, the plane this morning is heading north, where I will catch another small plane, which will head even farther north. We will cross the Arctic Circle, and keep going. Iqaluit to Igloolik, Igloolik to Pond Inlet, Pond Inlet to Resolute Bay, and then Resolute to Grise Fiord, the northernmost town in Canada. Deep Arctic. Land and sky beyond anything I've seen, and beyond my talent to imagine with any real depth. I've heard stories about the pilots who fly up there, whose off-strip landings are more frequent than on-strip, who land on skis and ice and snow, who fly the plane that seems to be capable of anything—the De Havilland Twin Otter—and I want to meet these people. How

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do you fly, when the weather is fast and the ground is unsure? How thick does the ice need to be to hold the weight of a landing airplane, and how do you tell before you land? How do you prepare when the satellite telephone rings and someone needs to be rescued from the ice?

There is romance to the idea of flying. There is thrill and danger and skill, and there is supernatural luck as well. But give the flying a purpose, an altruistic purpose, and you have the stuff of legend. Staring at the large map on the wall of my office one day, my eye tracing the outlines of islands named Baffin, Ellesmere, Banks, Devon, Cornwallis, Victoria, Prince of Wales, Somerset, Bathurst, Melville, Bylot, and King William, the names all imposed during a time, for good and evil, of exploration and discovery, I found myself thinking about the people, the Inuit and the European, and what it must be like to live there. And then the obvious came clear to me. These people need supplies. These people get mail! And in the Arctic, mail means airmail.

From the very beginning, the idea of a small plane coming down from the sky with letters and packages and news of the faraway captured something essential in the human spirit. Early pilots, in the open-cockpit days, did not in general live to see their fifth anniversary of service. The weather would turn, and the instruments were poor. It was easy to get lost, to get upside down, to have something break. But delivering the mail had the kind of nobility that made it all worthwhile if not completely necessary.

Where is farthest away, I wondered? How far does the airmail go? Who are the pilots who bring the mail, and what do they face in the sky and on the ground? Some time on the Web gave me a list of air stages for Canada Post. The northernmost delivery site, I learned, is Eureka, on Ellesmere Island. But Eureka is not really a town. It's a civilian weather station, and mail delivery is irregular. More north of Eureka is a place called Alert, but it's a military base and closed to civilians. So the northernmost site

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of mail delivery is Grise Fiord, population somewhere between 104 and 140, 720 miles north of the Arctic Circle, on the southern end of Ellesmere Island. Latitude: 76°25'00" N. Longitude: 82°54'0" W. I had to get there.

When I called Canada Post, it took only two connections before I was talking with a man named Rick Joubert, director of Canada Post's National Control Centre. I told him what I wanted to do.

"We don't go there," he said.

There was a pause in the conversation.

"As a matter of fact, *we* don't fly anywhere," he said. "We contract for that service."

"Is there anyone . . .," I began.

"The company up there is Kenn Borek," he continued. "Let me call them for you."

* * *

Waiting at a gate window in Ottawa, watching planes take off and land, I spent some time talking with an Air Canada pilot, asking about flying in the Arctic. I could not imagine, I told him, an Arctic filled with the little white omni radio stations that fill the more southern airspace with navigational aids. There's simply too much space in the Arctic. There's not very much in that space, and the environment is hard. GPS, the global positioning system, is effective and easy, and nearly every plane has it. But pilots use the other stuff too. He smiled and said he didn't know much about flying that far north. He'd never been there. Then I mentioned that I'd be riding with the guys from Kenn Borek, and his eyes grew wide. He leaned back and put two thumbs up.

"Oh, those guys! They are legends in the aviation business," this captain said, "and I suppose everything these days is pretty safe. But back then, back when they started, it was whatever looked good."

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Back in the First Air flight, I watch the clouds come in, and then I cannot see a thing. The captain turns on the seat-belt sign as we fly through some bumps that would not upset a cup of coffee, and when the clouds part for a moment I see snow and ice hugging the shorelines of lakes, white ribbons marking the boundaries between blue water and brown earth. We begin our descent, and the captain tells us that in Iqaluit the winds are blowing at 45 kilometers per hour out of the north. It's 2°C, and there is rain in the air.

The approach comes in from the east over Frobisher Bay, named for the English sea captain who believed, wrongly, that this bay was the start of the Northwest Passage. The bay is filled with broken ice. After landing and a short taxi we park at the terminal and exit through the rear of the airplane and down stairs. For some reason, the stairs make me happy. I've never liked jetways, the telescoping hallways at nearly every airplane gate, because they remove the whole sense of getting in a machine, of leaving a building and going into something entirely else. With a jetway you go from one bad waiting room to another bad waiting room, which just happens to move. But without one, you have to go outside before you can leave. You have to be in the weather. And you can see the airplane. Not just the nose of it tucked up against a terminal. You see the whole thing, and your eye can send that picture to your brain. You are about to go flying. In this particular machine. In this particular weather. On this particular day.

Outside the airplane, I nearly laugh out loud when I see the terminal. Bright yellow steel, curved at the edges, it looks more like it belongs on the bottom of the sea, tended by a Cous-teau or two, than at a Canadian airport. Inside there's a press of people—Inuit, European, Asian—all waiting to board some outbound flight. There are display cases of Inuit artifacts, information boards for the park system, advertising for local hotels. There's even a sign for Subway Sub Shops, reminding me to

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Eat Fresh. First Air, Canadian North, and Kenn Borek share the ticket counter.

Getting access to pilots is not an easy task sometimes, and it takes good people to open doors and set a tone. Rick Joubert of Canada Post called Steve Penikett, the general manager of Kenn Borek, who e-mailed Joan Griffin, Borek's general manager of Nunavut Operations in Iqaluit. Joan is the person who makes it all happen. A short woman with a bright smile and an easy laugh, she comes into the terminal waiting area and shakes my hand heartily, and I damn near give her a hug for no good reason. Gracious and hospitable, and no-nonsense too, she hands me the tickets for the next few legs of the trip. Joan has set up these flights for me and told the pilots and the station managers I'm coming. I try to buy her a cup of coffee, eager to hear whatever stories she might hold, but she's too busy, so we agree I'll buy her one on the way back out.

On the terminal television monitors, one for departures and one for arrivals, there is narrative as well as schedules and times. The First Air flight to Clyde River, about halfway up the eastern shore of Baffin Island, I learn, is going to fly directly to Pond Inlet, near the top of the island first, then try Clyde River on return. Right now in Clyde River the weather is bad, and airplanes are not going in or out. This far north, the weather changes fast, and every flight might be a trip to someplace else. My flight to Resolute, however, seems to be doing just fine. No delays. We are scheduled to leave at 2:00. Two stops, one at Igloolik and one at Pond Inlet, before we get to Resolute.

* * *

A Beechcraft 100 is a twin turboprop airplane with a range of nearly 2,000 miles. It can fly above 25,000 feet and has been used for everything from an ambulance to Air Force One. The Beech 100 sitting at the Iqaluit airport this morning, white with thin red