

# Across the Country in the DA20

By Gwen Graham



**Dear Friends,**

I started this trip across the country to pick up the Diamond DA20 on Tuesday, May 21 -- first to Vancouver, BC where I had a five-hour+ layover then departed for Toronto at 10:30pm; arrived in Toronto at 6:30am, another layover (only a couple hours) then finally a brief hop into London, Ontario, Canada where Diamond Aircraft has their North American factory.

As I was to discover just a few days later, the airline trip was the easiest.

No, I'm not back yet. I'm writing this update from Rapid City, South Dakota (KRAP). The weather, marginal VFR to IFR, has me grounded. It's Memorial Day, late morning and as it appears now, I probably won't get home until the weekend. Weather is always a factor for GA pilots and no more so than in cross-country flying. This year's weather particularly, has been unpredictable and unfavorable. And this trip is no exception.

I had intended to bring my computer so I could log a nightly journal of what happened, where I'd been, who I'd met, but I decided since I was coming by myself, not with Jim after all, that I'd better not try to lug it across country. Then I got stuck here and decided to make good use of my time, especially since I had found a computer I could use at the hotel.

On the bright side, I am flying a brand new airplane and one that is a pleasure. Anytime I get to fly I learn something, polish my skills and become a better pilot. With every leg of this trip I find myself having learned something about aviation, about my own flying abilities and what I believe I can offer our students and pilots.

I hope the following story that will inspire and teach -- something we always want to do at Graham Aviation. But also continue to fan the flames of passion for aviation for everyone who reads this. Because this is where the adventure begins -- on a cross-country flight. A real cross-country. Something out of the state, out of the region, out of a comfort zone just a bit to tackle the challenge. This is flying, in all its glory and frustration.

I have taken some wonderful pictures, unfortunately I have no way of downloading them due to not having my own computer. I'll post them on the web when I return and send out a link so you can see what you've read about.

This isn't a polished story, just the memories and experiences of the last six days. Think of it as an electronic hangar-flying session.

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## Getting to Canada

The trip to PDX last Tuesday afternoon for my flight to Canada actually turned out to be quite fun, in an aviation kind of way.

Jim had an instrument student whose lesson would have ended just about the time I needed to head to the airport. I didn't want Jim to rush the end of the lesson; that wasn't fair to the student. It was definitely an IFR kind of day so we made a deal with Joe -- postpone your lesson about an hour, ride in the backseat during an instrument approach into PDX and then you will do an instrument approach back into SLE. Thankfully, Joe liked the idea.

Jim did the flying, I did the communicating and Joe did some observing from the backseat.

Textbook-perfect until about the third handoff at PDX approach when they lowered us over TTD and asked if we had the airport in sight (we had said earlier we would do a visual if they could get us down under the clouds). Well, no, we didn't have PDX in sight. The controller sighed and said he'd have to vector us for the NDB. Okay. I started twisting knobs on the GPS to get us set up for what was to come. NDB...wait a minute. There is no NDB approach at PDX. I queried the controller, "You are going to vector us for an NDB at Portland?"

"No, to Troutdale," he said. "Isn't that your destination?"

"No," I said. "We're going to Portland."

He apologized and gave us another vector to intercept the ILS 28R at Portland (what we'd been vectored toward earlier.)

A few minutes later Jim had us lined up on a beautiful ILS to 28R. We touched down and taxied to Flightcraft, all the while chuckling about ATC's "oops."

A reminder for us onboard the plane that day and all pilots -- know where you're going and be aware of your position at all times because controllers can make a mistake too. And if ever in doubt, ASK for clarification.

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## Vancouver, BC

The last time I was in Vancouver, BC I had flown in myself and remembered getting a "keep your speed up, a 737 is on a five mile final behind you."

Vancouver's airport is actually quite nice with lots of eating establishments, including the Fairmount Hotel with a nice restaurant/lounge. I chose the more informal lounge and seated myself at the window where I could watch airplane traffic arrive. The city in the distance, I learned from my waiter, Claude, was Bernaby. Vancouver was hidden from view by the large hangars across the runway.

I lingered as long as I could over a cesear salad (actually one of the better ones I've had) and a glass of wine (I wasn't planning on being PIC for at least 24 hours), trying to wish the hours away until boarding time.

Eventually, I left and wandered down the concourse where I would board and found a seat to read one of the books I had brought along. "Flight of Passage" was loaned to me by Sarah, one of our students and friends at Graham Aviation. She thought I'd enjoy the read about two teenagers in the 60s traveling across country together in their Piper Cub. She had loaned it to me months ago; a bit of fate now that I chose that book to take along with me? Perhaps. But the time melted away as it usually does me when I get engrossed in a good book.

Finally, it was just after 10pm and time to board. As soon as possible after take-off, I found a comfortable position in the seat to sleep for as much of the four and a half hour flight as possible.

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## Ontario, Canada

Thankfully the wait in Toronto was short by previous standards. I found a fast-food restaurant in the terminal to enjoy a Canadian breakfast. Tim Horton's, I found out later is a Canadian institution, somewhat akin to Starbuck's.

About an hour and a half after consuming my breakfast sandwich and coffee, I boarded the turbo prop for the final leg of my journey. Landing at London in gusty winds, the pilots set it down nicely. I disembarked and walked into the terminal. A small town terminal, it reminded me of Eugene -- everything close by and in bursts of activity when the next flight arrives.

Pete from Galvin Flying Services at Boeing Field, who is Diamond's distributor for the area, walked in just as I had grabbed my bag. He had scheduled a flight for the previous day to allow him time at the factory for his business before picking me up and starting on the first step of picking up the new Diamond aircraft for Graham Aviation.

Even commercial aviation has its hiccups -- as most people have experienced at one time or another. Pete said he'd actually only arrived a couple hours earlier. After comparing time tables, we realized we'd both been in the Vancouver airport the night before.

We started our mid-morning at Tim Horton's again, for a cup of caffeine and a plan for the day.

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## The Diamond Aircraft Factory

We started at the Diamond Factory at the London (CYXU) Airport. An old Mosquito Aircraft factory during World War II, the owner of Diamond discovered it for sale while flying around the world about a dozen years ago. He had to stop in London due to weather (does this sound familiar?) and started poking around the airport. This building was shown to him and as he needed a site for North American production, bought the factory. Not only was it convenient but it was ironic. The factory in Austria, where their headquarters are located, was formerly an aircraft factory too, but it had been used to build the German war planes. Two factories that once built aircraft in which to fight the other would now be used to build a new aircraft for pilots.

It is a massive building in and of itself; there are also other buildings that have been added in the eight years since the purchase.

Franko, a former test pilot for Diamond, now working in the delivery office, met us at the factory. His knowledge of the aircraft and manufacturing processes was amazing. We started in the avionics section. An instrument panel set on a dolly just inside the door where we stopped. As Franko explained how they rig each panel by hand and test every step of the way, Pete glanced down at the paperwork on the dolly. It was serial number 956. We had just learned that the serial number was for the DA40 we will pick up in July was number 956! We were looking at a piece of the next aircraft for Graham Aviation. Franko said that the plane would be out in the assembly area so we would look for it as we continued our tour.

Diamond Aircraft are made of carbon fiber and composite materials. They are so strong that when the aircraft was first being certified the FAA brought in their machine for testing the strength of the wings. The machine would bend the wing until it broke, resulting in a measurement that had to be within the acceptable levels for certification. The wing was bent to the full extent of the machine and it still hadn't broke. The machine had to be retooled in order to apply more "bend factor." Finally, the wing broke. But not really. Only the skin crinkled. The spars were still intact. The measure at which these wings lasted is far beyond that which is required by the FAA for a certified aircraft. This fact would give me comfort later.

Each aircraft is literally handmade. There are no mechanical assembly lines, no robotic arms manipulating parts. There are people. About 24 people we figured that it takes to build one airplane. Again, each step is scrutinized by quality control and if it doesn't meet their standards, it's scrapped and that aircraft is begun again.

From the first sheet of carbon fiber or other material, each piece of the aircraft is also produced with molds that

Diamond Aircraft has specifically made for that aircraft. Except for the engine, the instruments and standard hoses and the like, all parts of every aircraft are custom made for that serial number.

We ended the tour by going out the back door to another building. The "high security" building, Franko joked. It had Diamond's name on it but that was about it. Franko had us wait in the office area while he disappeared into the hangar. A few moments later he came back and said okay, we can come in. I walked through the door and into a massive hangar with shiny white floors. About a half dozen people worked around them with their equipment and clipboards.

"Welcome to the future," Pete said, indicating the aircraft across from us. "These are the first three mockups of the D-Jet."

(The latest D-Jet was being produced at the factory and was pointed out during our tour).

Around the half circle of D-Jet's to the right set another familiar sight -- the DA50 -- and the only one existence.

"That's the DA50 that's being used right now for all the flight tests," he added.

Obviously I did not get any photos of this area. However, I did get to sit in the DA50. What a luxurious and well-equipped airplane. Three panel G1000, overstuffed leather seats and over 300 horsepower sitting out front.

Now it was time to go meet N408KB. What a day already and it wasn't even noon yet.

Stay tuned for the next part, arriving in your email inbox soon.



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