Flying Ahead

The story of Air Cadet Jacob Graham's Great-Grandfather



Joseph Graham



Jacob Graham December 7, 2022

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As told by his grandfather,

Joseph Graham



Jack Ross Graham, 14 or 15 years old

Dear Jacob,

Thinking of you at 14, I thought I should share some stories that we know about your great-grandfather at 14 and later.

Most of the stories that are handed down to us grandchildren by proud grandparents and other close relatives are difficult to verify, as are the stories of Jack Ross Graham, who turned 14 on July 3, 1931. One story I remember well was told to me by my grandmother, Olive Smith Graham. She was a frail woman who wore lace-up leather supports on her weak wrists and had a great deal of difficulty picking me up to sit on her knee. I remember her eyes, face and mouth as being a series of darkish circles, appropriate to her name, Olive. She was very proud of her son, my father, and she told me the same stories each time she came to visit, so over time I remembered them. When I was really little, I loved hearing them again every time because I loved the attention.

This well-remembered story was of how it was during the Depression, and my father, a boy of 14, was given the job of earning money for the household by delivering newspapers door-to-door. This was a common way for adolescent boys to make some extra money when I was a boy, and I did it too, but when I did it, I could spend the money as I wished. My father was supposed to bring his earnings home, and sometimes he may have, but my Grandma told me how he would often come home and when she asked for the money, he would reach confidently in his pocket to retrieve it and then explain it must have fallen out while he was hanging upside down from a tree limb in the park. At the same time, she told me how my father used to go to the airfields to learn how to fly when he was "as young as fourteen!" never seeming to connect that his paper route may have paid for the privilege of learning there.

When he was a young man like you, one of his heroes was Stuart Graham, a pilot who had flown in World War One. He had flown U-boat reconnaissance over the English Channel, and, like many of the early pilots, he had learned to fly as a result of the war. When the war ended, the Canadian government had in its possession 12 Curtiss HS-2L Flying Boats. These American-made planes had been stationed in Nova

Scotia to monitor local U-boat actions. An earlier version was used first, but was not strong enough to carry the bomb necessary to blow up a U-boat. Stuart Graham may have dropped bombs on subs over the Channel, but it seems none were successfully dropped by one of these planes flying surveillance off the coast of Nova Scotia.

Jack had an older brother, William, named after his father, and the family had a printing company called Duggan and Graham, at 426 Queen Street East in Toronto. Both his parents and his brother were taken with hockey, and his father was the score keeper at Maple Leaf Gardens. However successful the printing business was, the Depression was hard on everybody. There was a lot of pressure on both boys to see their future in the family business.

Jack wanted to fly.

From when he finished high school, at around 18, he is registered as having spent three years working as a pressman. This would imply that he worked for the family business, but during that same period he studied night courses on the theory of flight and aircraft structure at the Central Technical School at the University of Toronto. It would seem clear that he was doing his best to break away from his family and their determination to see his future in printing. By the time he was twenty, he had found work as an aviation mechanic at Pratt and Whitney while simultaneously working as a sightseeing and charter pilot at Curtiss-Reid Flying Service Ltd. – in Cartierville, Montreal.

The twentieth century began with an explosion of interest in the internal combustion engine. It can be compared with the 21st century passion for IT, and just as now so much is about IT, then every boy and young man talked about motors. Today, everyone uses computers in some form, but fewer and fewer people can actually take one apart and understand how it works. Back then, the same thing was happening with a different technology. More and more people used internal combustion engines, but that did not mean they understood how they worked – only the 'nerds' did, and your great-grandfather was a super nerd in that respect.

Larry Lesh The Flying Lad







This is the story of the first known aviator in Canada ... a boy of only 14 years of age!

In Montreal during the summer of 1907, Laurence J. Lesh performed a series of soaring flights in self-made flimsy gliders, towed ...

...by a galloping horse!

The Flying Lad also set a world record by staying aloft for 24 minutes over the St. Lawrence River, towed for ten kilometres by a motorboat.

These were the first soaring flights worthy of the name in Canada, more than eighteen months before any airplane would fly in the country.

This book, *Un gamin dans le Ciel, The Flying Lad: Larry Lesh,* is a time travel to the days of the Wright brothers, Glenn Curtiss, Octave Chanute and other early aviation pioneers.

With over 125 pictures and illustrations.

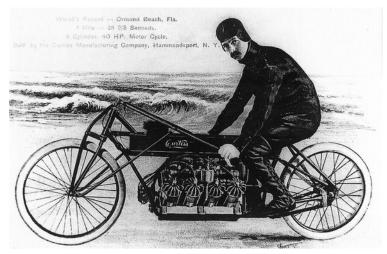
Pierre Thiffault is the author of several books and articles on the history of aeronautics. He worked for over thirty years in air traffic services and he co-founded the Quebec Air and Space Hall of Fame.

ISBN 978-2-923246-09-3

Glenn Curtiss and the Curtiss HS-2L

A Curtis Flying Boat, like the "Curtiss HS-2L," may never have come into existence without the war. Glenn Curtiss, the man who built it, dropped out of school having completed grade eight – around your age. By his early twenties, he was married with a baby and was working as a Western Union bicycle messenger. He also fixed bikes in a shed out back, and raced them. Around that same time, 1902, he turned a bike into a motorcycle in the back room of his bike shop. He built the gasoline motor himself. He converted an empty tomato soup can into a carburetor, but he could not have made the engine block. From that beginning, he developed a deep understanding of internal combustion mechanics. The next year, he raced his motorized bike, reaching 103 km/h and setting a speed record. Next, called *Hell Rider Curtiss*, he won an endurance race covering 16 km. For him though, planes were still to come. In 1904, Curtiss built and sold a 7 to 9 horsepower motor to be used in the first successful American dirigible, but he kept racing motorbikes.

By 1907, he had designed and built a motorcycle powered by a V8 engine. He is sitting on it in the picture below. He won a race with it, too, setting a speed record of 219.45 km/hr. A newspaper reporter dubbed him "the fastest man in the world." His record held until 1930.

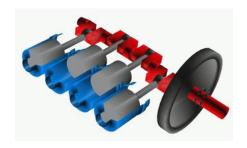


Hell Rider Curtiss, The Fastest Man in the World, 1907

Curtiss had acquired that v8 engine to power a plane. What were these people thinking of? When flying licences were created, Glenn Curtiss held licence number one. Not because he was the first, but he was a contemporary of the Wright brothers and other crazy adventurers like that Canadian boy Larry Lesh, and the licences were assigned alphabetically. Curtiss was right there, in the pioneer days of flight. These young men wanted to soar through the air propelled by heavy engines as powerful as a stampede of horses. While up there, soaring, they would figure out more and more about how to control those wild horses, looking down at the distant ground with cool detachment. If I had been alive then, I might have admired them, but I doubt I would have wanted to ride horses through the sky.

The first V8 engine was designed and built by La Société Antoinette in France in 1902. The V8 has four pistons oscillating in their cylinders on each side of a V-shaped engine block, all driving the crankshaft. The advantage of the design is that it is more compact, using a less massive engine block than a straight 8 cylinder would.

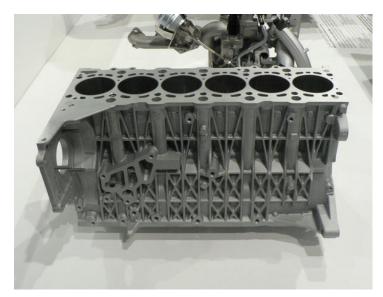




A "V" shaped engine from the front, showing the pistons driving the crankshaft and a straight four-piston crankshaft with pistons attached (on the right).

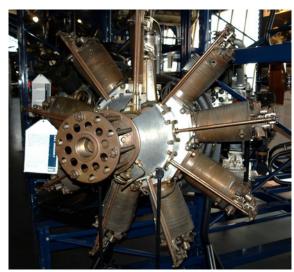
These both come from animated images at Wikipedia.

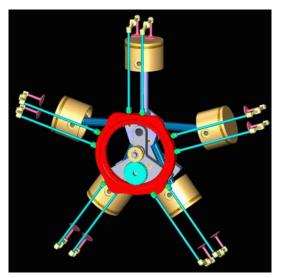




On the left is a V-12 aero engine, and on the right a standard automotive engine block with the cylinders cast right into the same block.

Below is a radial-design aero engine that is much lighter, having all the pistons connected to the same place on the crankshaft.







Close-up of one end of a crankshaft.

Aerial Experiment Association

It was Alexander Graham Bell who reached out to Curtiss to join his team at the Aerial Experiment Association hoping to develop and pilot an airplane that Bell called the June Bug. The insect has fixed wings with smaller wings that create the airflow, the way a propeller does. Bell's objective was to make a try for a \$25,000 Scientific American prize for the first officially witnessed motorized flight of over a kilometre. The plane would have to take off, driven by its propellor, and therefore needed also to have wheels. Curtiss and Bell worked on the plane through 1907 and were ready by June 1908, but the organizers had offered the Wright Brothers to try first, since they had succeeded in longer, but unwitnessed, flights. Their plane had been catapulted and had no wheels. They declined on July 1 because they had to finish a project for the United States government.

It was not an open-and-shut thing that Bell's and Curtiss's June Bug would succeed, and the event, which had been planned for American Independence Day, July 4, 1908, was well-attended – even filmed. With Curtiss as pilot, the plane added to the excitement and tension with a false start, but finally flew a kilometre and a half in one minute and 42 seconds, winning the prize.

Glenn Curtiss flying for Alexander Graham Bell's *Aerial Experiment Association* wins the Scientific American Trophy July 4, 1908

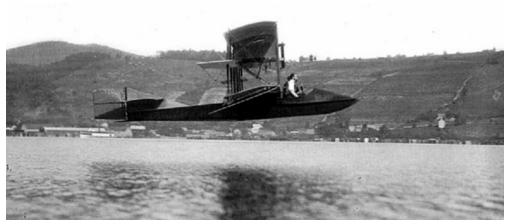


Bell and Curtiss next tried converting their June Bug into an amphibious plane, adding floats and calling it the Loon, but it failed to reach take-off speed to leave the water. Later, one of its floats leaked and the plane fell over and was ruined. Bell and Curtiss also had some differences, and Curtiss went out on his own, but he had been bitten and was determined to make an amphibious aircraft.

In 1909 Curtiss won the overall air speed category in the Gordon Bennett Cup in France, completing a 20 km course in just under 16 minutes, and in 1910, he completed a 220 km course between Albany and New York City in less than four hours. Publisher Joseph Pulitzer had offered at \$10,000 prize, and along with the prize money, Curtiss received a Scientific American trophy.

Later that year, Curtiss taught Blanche Stuart Scott of Rochester, New York, the rudiments of flying and left her with a plane to learn to taxi. The throttle was set for rolling along the ground only, but a gust of wind took her up. She confidently controlled the plane and brought it back down for a gentle landing. Curtiss must have been impressed because she became one of his exhibition pilots. She was the first woman to fly in the United States, and later she became a stunt pilot.

That same year, another Curtiss plane took off from the foredeck of the USS Birmingham and flew to shore.



The Flying Fish, 1912-1914

The next year, Curtiss developed proper floats for the first float plane, but flying boats were coming his way.

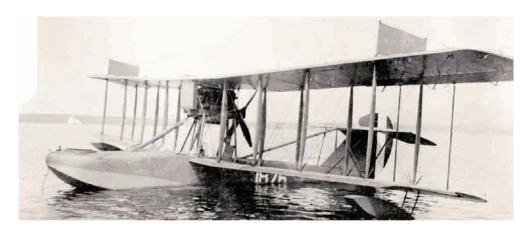
Around 1912, Curtiss met retired British officer John Cecil Porte who wanted to work with him to make a flying boat that could fly across the ocean. Together they created the Flying Fish, but then the war started.

Porte returned to military service, and Curtiss found his time taken up with military projects. Flying boats would become a major part of that, as would signal and reconnaissance planes that he built for the army and navy. His H-series of flying boats, called the America, were the only American-designed and -built planes to be involved in combat during World War One. He continued to work with John Porte to perfect the H-series, and the HS 2L became an effective sub bomber towards the end of the war. By that time, Curtiss's small shop behind his bicycle repair shed had grown into a major aviation company with over 20,000 employees. After the war, it was a Curtiss-built flying boat that made the first trans-Atlantic flight and when everything was settled, the Canadian government found itself in possession of twelve HS 2L planes that would bring flying in a new direction.

Stuart Graham was Canada's first bush pilot. In June 1919, he delivered a Curtiss HS-2L Flying Boat, to be called *La Vigilence*, from Halifax to Lac-a-la-Tortue near Grand-Mère. He was the pilot while his wife Madge navigated from the gunner's cockpit and the mechanic, Bill Kahre, was an essential member of the crew in the third seat.

They touched down to great fanfare at towns across Eastern Canada en route to Grand-Mère. They sat single file in open cockpits but Madge (Marguerite) had strung a clothesline to send messages back and forth between them. In those days, a mechanic on board was necessary and navigation was by line of sight. The series of flights consisted of short hops, often just over the treetops.

Madge became the first woman in Canada to make a cross-country flight but the report from the Canada Aviation Museum, 2004, describing this flight does not mention her family name, nor does it talk about her role as the navigator.



Curtiss HS-2L Flying Boat

I had never heard of Stuart Graham until one day I was driving around Dorval Airport and saw a road called Boulevard Stuart Graham. It was about thirty years ago. Of course, I connected the name with my brother Stuart and began to wonder.

My mother, your great-grandmother, told a lot of stories and some were like Olive Graham's stories; they didn't connect all of the dots. One of the stories she told was how difficult a birth she had when my brother Stuart was born. She was always very religious and prone to spectacular influences. In the case of Stuart, she had had some difficulties with the pregnancy and, when she was in the hospital with the contractions quite advanced but no sign of the doctor, she said the nurses held her legs together to keep the baby from coming until the doctor arrived. This caused her to fall into some sort of trance-like state in which she learned that the baby was particularly important to God - so important in fact that she should call him Jesus Christ. She had some conviction that her children would each, in his or her turn, become great saints, but in this case she was adamant. The baby was Jesus Christ.

The problem with my mom, as we all came to know, was that you should never tell her that something cannot be done, so in this case she was digging in. They called Father Power immediately to come and talk sense her. He was unsuccessful in changing her mind and everyone around was a bit frantic. In some cultures it is not unusual to call a child after Jesus Christ, something like Jésu, or depending on the language, Gesù.

But not in Canada. We didn't do that, especially in English!

It was my father who saved the day. Instead of trying to tell her she can't do that, he said he was hoping the boy would carry the names of her favourite brother John plus a Scottish name that he wanted, Stuart. She could not refuse but in telling us this story years later, she never mentioned Stuart Graham, Canada's first bush pilot. When I learned who Stuart Graham was, that he warranted a name on a boulevard that surrounded a huge property west of the airport, I understood. My mother never told us because she never knew.

Curtiss-Reid Flying Service Limited

A man named William Thomas Reid bought the airfield in Cartierville and began to build a plane which Jack Graham would have known and flown. It was called the Rambler, and was an excellent teaching plane. His plane caught the attention of the American Curtiss Aeroplane and Motor Company and they acquired his company, changing its name from the Reid Aircraft Company to Curtiss-Reid Aircraft Company. The man who took over management was named J.A.D. McCurdy, and he was one of the five members of the team called the Aerial Experimental Association that Alexander Graham Bell had set up to win the Scientific American prize for the first official takeoff and landing. They also set up a service called Curtiss-Reid Flying Service Limited. It would be where Jack got a job in 1938 as a sightseeing and charter pilot while he was working for Pratt & Whitney as an aviation mechanic.

Another airplane maker named R.B.C. (Bob) Noorduyn set up there in the early 1930s and created the Noorduyn Norseman. Both the Rambler and Norseman are pictured below.







Noorduyn's Norseman

Cartierville was a busy airfield back when Jack Graham arrived. He rapidly went from sightseeing and charter to teaching at Curtiss-Reid and his mechanical knowledge found him in demand as a test pilot at Noorduyn. It was at Curtiss-Reid that Jack met William (Bud) Oliver, who would play an important role in his future. During the Depression of the thirties, he built a house for himself at Lac Brûlé in Ste Agathe. He did every part of it, electricity and plumbing as well as design and construction, relying on help from the Walker brothers who would eventually become his brothers-in-law. Among his friends was Alphonse Paré, my grandfather. Alphonse was most of a generation older than Bud and was a bit intimidating - someone he always called Mr. Paré.

Mr. Paré was a tough man, a graduate of the Royal Military College, an excellent horseman and canoeist and a mining engineer who had successfully identified and helped his family acquire the largest gold find in Canadian history. He was someone who was perceived to have grown up "in the bush" and knew a lot about rural Canada. On top of that, he was very strong and a little bit emotional - his wife described it as a Latin temperament. One day he called up Bud with a problem. His daughter, Patsy, he said, wanted to learn to fly. He didn't know what to do. She had no understanding of fear and had already broken bones and cost money in plastic surgery for her crazy antics on skis.

He did not add that she was a champion skier and golfer, and an excellent swimmer and diver. He probably didn't care about those things. She had caused him a lot of problems. He had done all he could to *marry her off*,



even footing the bill of a huge "Coming Out" party at the Ritz Hotel and he had paid to have Tommy Dorsey, a well-known international performer, come to entertain.

This was clearly a huge problem for Mr. Paré, but Bud took it in hand. "Don't worry about a thing, Mr. Paré. Send her over to me and I'll take care of it."

When he got off the phone, he called Jack Graham into his office. Jack had turned out to be an excellent teacher, but also a pretty good stunt flyer, and had a calm, dependable nature. They had had pleasurable weekends together with Jack flying them up to Lac Brûlé and Jack had proven to be a loyal friend and employee. He could be relied upon.

"Jack," he said, "I need your help. There is a spoiled rich girl who wants to learn to fly. Her father is very anxious because she's already shown herself to be a bit of a management problem for him. When she comes, I want you to take her up, give her a good scare and send her home."

Well, that's the story. She came for her first lesson and Jack discovered that she really did have no understanding of fear. He had never met anyone like her. She was beautiful, even exotic with that hint of the Latin that her mother had identified in her father, and was really quite taken with Jack.

Mr. Paré was furious. Not with Bud. With his daughter. She was incorrigible. She didn't need to learn to fly. Instead she had found an excellent pilot who could do anything in the air. When she told him that she had finally found the man she would marry, he just put his foot down and said the words that the whole next generation would



His daughter Patsy wanted to learn to fly.

learn you could not say to her. "No, you can't." He called this new dream man of his daughter's a "glorified bus driver." What was she thinking of? Jack met with him three times to ask for her hand in marriage, and each time he refused because Jack was not Catholic. It was finally my grandmother who warned him that they would marry anyway, that they would simply elope.

In time, seeing that she was as stubborn as he was, he reconciled himself and accepted the inevitable. Tommy Dorsey was not at the wedding.

By the time they married, Jack was flying for the RCAF.



Alphonse Paré and his daughter, Patsy



Jack Graham and Patricia Paré September 26, 1942

The War Years

As a test pilot and flight instructor Jack's service began before he signed up. Curtiss-Reid took on Commonwealth flight training immediately. He signed up January 5, 1942, and received a transfer to Reserves, class E on November 5, 1945. The list below his records shows planes flown, but he had already flown many different planes before becoming a flight lieutenant for the RCAF. He also continued as a flight instructor for the RCAF once he started his military service. He served with the RAF for 10 months in transport command in trans-Atlantic and trans-Pacific flights, which lends some credence to one of the war stories we were told.

	SERVICE	MACHINES FLOWN
HARVARD	MAS I HT HO	1. STINSON 10 S.
FACAY B	ATTLE.	SCEINCRAFT IS A, 180, CYS B
ANSONS M	KS I TY I	BOLING BROKE. TV
DIFORPS		CORNELL
FLEET F	INCH.	VENTURA
NORSEM	92	FAIRCHILD 24.
MOTH - ME	NAICO + EYPSY	
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Nom BO.		
IVARILA	JE.	
YALE.		

It appears that as a test pilot he had submitted a report condemning a plane that had not succeeded in crossing the ocean. Subsequently, he received orders to fly one of these same planes to Australia. His earlier inspection saved his and the crew's life because he had observed that the tail section shook itself loose over the long distances. At regular intervals as they crossed the ocean he squirmed his way into the fuselage, tightening bolts all the way back to the tail section. When they arrived in Australia the crew and military passengers got out and kissed the ground.

My sister Sue went through the Freedom of Information access to get the full record, and I talked with Pierre and with Kate about acquiring a copy, but that was a while ago. Apparently they have a lot of records. Pierre and Kate are going to try to do something in a few weeks, so if it is useful I will share another book about his role in the war with you.

The records I received are not extensive and the handwriting can be hard to read. I know he was recognized two or three times, once with the Air Force Cross, the others I am trying to understand. He flew a huge number of different planes before the war. His previous civil experience mentions 1000 hours flying. It lists Harvard, Norseman, Yale and Fleet. It also mentions 8 months in mechanical work as an engine fitter at Pratt & Whitney, 5 months as an assistant test pilot at Noorduyn Aircraft and one year as a flying instructor at Curtiss-Reid Flying School. On all the forms he filled the question of religion with "Christian Scientist." That would have driven his father-in-law mad. (I also suspect that he put that down simply because his parents did.) He also mentioned sports interests in hockey, football, badminton and swimming. I remember him watching Canadian football and hockey.

I hope to have a fuller understanding once I have had a chance to review the records that Sue received. There may be nothing new, but I only recently learned that she went further because she felt the information she received was incomplete.

After the War

Clearly Jack's first love was flying. After the war, he took a job flying in Buenos Aires, Argentina, with the Compañía Argentina de Navegación Dodero SA, planning to move his young family there. His emplyers had acquired six Noorduyn Norseman planes as well as some Beechcraft. These were his preferred planes and reflected his expertise. I wonder if your parents and grandparents would have met if the family move had been successful, but it wasn't. A new left-wing government was elected under Juan Peron. It became clear that aviation would be nationalized and ultimately Navegación Dodero did not get the position it aspired to. It is likely that the planes he was to use did not fly very much in 1946 and 1947. He returned to Montreal and to Curtiss-Reid and Bud Oliver.

His daughter Sue was born that December 1946, too, and her health was precarious. The next four years were very difficult for the family, with Patricia being hospitalized some time after I was born in 1949. All four children were living with relatives and Jack was working at Canadian Celanese, an American subsidiary of a specialty chemical company - far away from flying. He worked there for a total of seven years, and they were unhappy years for the family.

Then, in 1955, a young cousin of Patricia's, John Timmins, approached Jack and asked him to help set up an aviation service company at Dorval Airport servicing business aircraft. John, from a wealthy family, had lived a life of aviation and loved it as much as Jack. Twelve years younger, he was 11 when the war began. He started flying at 16 and earned his commercial license as a bush pilot. He was wild and hearty, almost killing himself in a crash and just going back at it. Eventually he landed a job flying DC3s. He was 27 when he decided to set up the business that was called Timmins Aviation Limited (TAL), and Jack was a priceless find for him. From when he began at TAL, his life took a more positive turn. Even though Alphonse died that year, Val Morin became more central to Jack's life, flying float planes or flying boats like the Royal Gull up to Lac Raymond for the weekend. Also, the family's health had stabilized and Patricia, called Tante Pat, was teaching all of her nephews and nieces, who all came to Val Morin for the summer, how to swim, dive and play golf.

Jack also had his wild side, but he was always hungry to learn, and during the fifties, he attended night classes in aeronautical engineering, and soon obtained his degree. Around 1957, his doctor told him that he had thrombosis in his thighs and he would have to live a more active life. He took a job flying Beechcraft from Montreal to California, transporting businessmen back and forth but unknown to everyone, it was not the kind of active life he needed. It made his thrombosis worse.

Being Uncle Jack's son had a certain status. He took us up for airplane rides when he could and everyone came out to watch him arrive on the lake. I was young, only ten, when he died, but he had a huge impact on



Royal Gull on Lac Raymond, Val Morin, 1957

Ford Meteor at 393 Roslyn Avenue, Westmount, 1957



his children, giving us a basic understanding of how things worked.

In the late summer of 1957, he drove home with a brand new Ford Meteor with a Thunderbird engine. The Thunderbird engine meant that the car was more powerful than one would assume, but Jack appreciated a good motor and this was one. He parked it in the driveway of our house in Westmount and proceeded to take it apart, voiding the guarantee. Watching him, even as kids, we got aspects of it, especially my older sister Sue, and none of us are intimidated by mechanical problems. That was his most important gift to us, to feel we could take anything apart to try to understand how it worked.

I have learned many stories about my parents, Jack and Pat, as you will about yours. One of the stories that my cousin Marie-Claire Holland shared with me only two years ago was that she knew her uncle Jack was

going to be taking people for rides in Val Morin, but she had to stay in the city to complete some schoolwork that weekend. It must have been between 1957 and 1959. She was very disappointed that she would miss the event, since he had promised her a ride "next time." Later in the same summer, he contacted her and invited her to fly up north with him, all the way from the airport. She described how he offered to fly over her school so she could see it from the air. She was very excited at the prospect, but when they got there, he turned the plane upside down to give her a better view.

No doubt you will have opportunities to learn more about flying than I will ever know. Just as internal combustion engines changed people's experiences with such things in the early twentieth century, and IT, personal computers and that new technology changed us all again in the past 30 years, you will very likely learn and grow with great changes in the technology of flight as we learn how to do so much without the internal combustion engine.

You are living in a time of fascinating change, and much of it is for the better. Do keep me informed.



Grandpa standing at attention by the Royal Gull

Happy 14th Birthday, Jacob, love from Grandma Sheila and Grandpa Joe!



In 1906, Brazilian Alberto Santos-Dumont's plane pictured above was the first publicly witnessed heavier than air plane to take off under its own power. It was filmed too. The Wright Brothers had flown as early as 1903, with the initial launching by catapult. True aviation scientists, they were less concerned with publicity than with the objective of heavier-than-air motorized flight.