



The Story of the Silver Dart and Canada's Early Aviation Inventors

Do you know Douglas McCurdy? Casey Baldwin? No? How about Alexander Graham Bell? No, not either?

Ok, let's change that because these three men made aviation history in Canada.

Bell was born in Edinburgh, Scotland, in 1847 and just like other members of his family he worked in the field of elocution (the skill to speak clearly and use proper pronunciation and articulation). Bell's interest in the field of speech and communication was amplified when his mother began to lose her hearing when he was only 12 years old.

After Bell's two brothers had died of tuberculosis, the remaining family members decided to leave Scotland and immigrate to Canada. Bell was 23 years old when they settled on a farm in the Brantford area in southern Ontario. There Bell set up his own workshop and started to experiment with electricity and sound.

Soon after their arrival in Canada, Bell's father was contacted by a school for mute and deaf people in Boston in the United States. They wanted to hire him to teach their staff about his system of "visible speech" which he had developed. The older Bell, however, declined the position in favour of his son.

In April 1871 Aleck, as he was called by his family, moved to Boston to take up his teaching position. One of the teaching methods his father had devised incorporated experiencing sounds through vibrations. Two years later, Bell became a professor at Boston University while still tutoring deaf students. One of his students was Mabel Hubbard whom he would later marry.

In his spare time Bell kept researching and experimenting with electrical transmissions of sound. For the summer months he returned to his family's homestead in Ontario to rest from his long hours of work and research. It was there that he conducted his first tests of early forms of telephone calls in the summer of 1876. The truly ground-breaking one was his call from Brantford to his assistant Thomas Watson in Paris, Ontario, about 16km away.

The financial resources required to work on his experiments had come from the wealthy Gardiner Green Hubbard who became Bell's father-in-law when he married Mabel in 1877, as well as Thomas Sanders, the father of another one of Bell's students.

Just two days before his wedding, Hubbard, Sanders, Watson and Bell formed the Bell Telephone Company which would set up a Canadian division in Montreal in 1880. Over time this company transformed to become one of Canada's large telecommunication companies and is still in existence today.

Bell soon became a wealthy man and in 1885 he visited Nova Scotia, looking for a place to build a summer home. He picked the small village of Baddeck on Cape Breton Island, overlooking the northern part of Bra d'Or Lake. Bell selected the site as the landscape reminded him of his native Scotland.

In 1888 Bell's residence was built and the family quickly became close friends with Arthur McCurdy, editor of the local newspaper and John Alexander Douglas McCurdy's father. Young Douglas, that's the name he went by, was born in 1886 and spent much of his time with the Bell family, possibly in part because the

Bells had lost their two sons as infants. They even offered to adopt Douglas whose mother had died in childbirth when he was two years old but the family declined.

With the telephone invented, Alexander Bell turned to another project. He began working with flying objects as he was convinced that it should be possible to create a machine that could carry a person through the air. Many of Bell's early inventions were kites of different sizes and shapes. McCurdy helped out in Bell's laboratory and was quite inspired by Bell, so much so that the latter paid for Douglas to move to Ontario and to study mechanical engineering despite his young age of 16.

Four years later, when Douglas graduate from the University of Toronto, he convinced his friend and fellow student Frederick "Casey" Baldwin, born in Toronto in 1882, to accompany him home to Baddeck. They soon started to work with Bell on flying machines that could carry a person. They invited American Glenn Curtiss, an American who had expertise in building light, compact engines, to join their team. While Canada showed little interest in flying machines, the United States war department saw great potential in the idea of flying objects that could carry a person, such as balloons and kites. Bell had long become a US citizen and due to his fame also had contacts in high circles. In fact, Bell had the ear of President Theodore Roosevelt who seconded Lt Thomas Selfridge, a member of the United States Army and an expert in aeronautics, to Bell's team.

Soon several machines were built and experimented with. Some test flights took place in Cape Breton, others around the village of Hammondsport in New York State where Glenn Curtiss' engine company was located. In 1908 the team was finally ready to try a flying machine with an engine, the Red Wing, named after its wings that were covered by red silk. Although this plane was chiefly the design of Lt Thomas Selfridge, it was Casey Baldwin who sat at the controls when the plane took off from frozen Lake Keuka for its first flight on March 12, 1908. Casey had just become the first Canadian to fly a motorized aircraft.

In the early days, flight was not without danger though, and many experimental flights lead to accidents and destroyed planes. In September 1908 Lt Selfridge was the passenger in a demonstration flight made by Orville Wright, one of the famous Wright brothers who were the first men to fly a motor-operated airplane just a few years before Bell's team. The demonstration ended in tragedy as Selfridge got killed and Orville Wright severely injured.

The following winter, Bell's remaining team returned to Canada and on February 23 1909, the Silver Dart was dragged out to Bras d'Or Lake in front of Bell's home in Baddeck. Once again, a lake's frozen surface was chosen as the plane's runway. McCurdy had already flown the Silver Dart a few times in experiments and he was excited to do it again, but this time in front of his hometown friends and neighbours.

When the Silver Dart took off, it was McCurdy's time to make history by being the first to fly a powered aircraft in Canada. He flew at a height of about 9 meters, covering about 800 meters at a speed of 65km/h.

With its mission accomplished, Glenn Curtiss left the team to pursue his own aviation interests. Baldwin and McCurdy, supported by an aging Bell, continued their experiments and founded a new company. Their new experimental designs were called the Baddeck 1 & 2 which they planned to pitch to the Canadian

Government. Bell supported them by presenting the idea to politicians and businessmen in Ottawa. In August 1909 the day had come when the two men were invited to demonstrate the planes to the Canadian army in Petawawa, Ontario. To shelter the planes, the army built the first ever aircraft hangar in Canada. During its fifth test flight, the Silver Dart however crashed while landing and was beyond repair. The Baddeck 1, which was the main version McCurdy and Baldwin wanted to demonstrate to the military as it could carry two people, suffered a similar fate.

Instead of getting an order for aircraft from the military, McCurdy received a letter from Lieutenant Colonel Sam Hughes, who became Minister of Defence two years later, stating that “...the aeroplane is an invention of the devil, and will never play any part in the defence of the nation, my boy!”

McCurdy was not deterred and continued his quest for aviation advancements. He became a stunt flyer and was the first Canadian to hold a pilot's license. He renewed his partnership with Glenn Curtiss and set up the Curtiss Flying School, the first such school in Canada. Soon he became the manager of Long Branch Aerodrome, Canada's first airport. While poor eyesight limited his flying career, he continued to work in the aviation field which took off greatly after the First World War. His accomplishments were widely recognized and in 1947 his home province of Nova Scotia appointed him to be its Lieutenant Governor. In 1961 McCurdy died at the age of 74.

Casey Baldwin took a different path and returned to Baddeck to work with his long time mentor Bell on the development of powered watercraft. After Alexander Graham Bell's death in 1922, Casey continued to experiment with hydrofoils, he built boats and won many races. Casey had become the son the Bells never had and lived in his own house on the Bells' estate until his death in 1948.

The determination and ingenuity of these three men shaped aviation history. On that cold February day none of them could have foreseen how their single person flying machine would soon become a means of mass and long distance transportation for people and goods.