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The First Aerial Canoe: Wilbur Wright and the Hudson-Fulton Flights

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Wilbur Wright takes off from the sandy field of the parade ground at Governors Island in New York Harbor. First Hudson-Fulton flight, September 29, 1909.



This photograph was taken after Wilbur Wright's flight around the Statue of Liberty. The four funnels of the Cunard liner R.M.S. Lusitania appear above the crowd surrounding the Wright 1907 Model Flyer.



Captain Thomas Scott Baldwin sets out from Grant's Tomb for Albany in an attempt to win the Pulitzer Prize. The flapping

Wilbur Wright flew for just less than an hour in the course of four flights over five days in the fall of 1909 as part of New York City's Hudson-Fulton Celebration. These were flights, which he noted would mark the end of 15 months of near continuous exhibition flying by himself and his brother. And this was the case, as Orville Wright's flights before the German royal family at Potsdam in October were certainly not public demonstrations. The Hudson-Fulton flights mark the end of the Wrights' public exhibition flying careers, and their time as the leading "Man-Birds" of the world. By the conclusion of the flights on October 4 the Wrights Brothers held both the world altitude record, the endurance record, and the record for endurance with a passenger. Those records would not last long as growing numbers of pilots and new types of aircraft began to challenge the Wrights.

What is remarkable about the H-F flights is not their duration but their apparent difficulty. Just four months before, in July of 1909, Louis Blériot had succeeded in barely crossing the English Channel, a distance of 21 miles. To avoid any wind, Blériot flew at 4:30 in the morning and crash landed at Dover a little after five. One newspaper headline following Wilbur Wright's longest Hudson-Fulton Flight claimed that he had "OutBlérioted Blériot". The comparison with Blériot is important.

In a letter dated October 30 1908, Wilbur wrote to Orville:

"I had intended to come home as soon as I could train my men, but the Daily Mail has offered a prize of \$2,500 (actually 1000 pounds) for a flight across the Channel, and has offered to privately give me \$7,500 extra, \$10,000 in all, if I will go for the prize and win it."

In other words, Alfred, Lord Northcliffe, owner of London's Daily Mail had secretly offered Wilbur three times the amount he eventually paid to Blériot for the same flight. Wilbur's letter is optimistic, and is evidence that he was seriously considering a Channel flight. Orville replied on November 14 saying that he did "not much like the idea. I haven't much faith in your motor running." In 1908 and 1909 it was always the unreliability of the engines that tended to determine the length of a flight. That was the end of that. The Wrights might have made an attempt in May following their stay in Italy, but by that time, they were wanted back in America to get ready for the resumption of the Army trials in late June. Perhaps because of the earlier accident, Orville and Wilbur would be together for the Army Trials.

banner on the side of his airship is an advertisement for the New York World newspaper.



Cover of Harpers Weekly magazine celebrating Wright's flight around the Statue of Liberty.



Glenn Curtiss made the cover of Harpers Weekly for his victory at the Reims Air races in August, 1909. He is carrying a cane for support due to an injury resulting during the aviation meet.

The other big prize which the Wrights did not try for in 1909 was the \$5000 cash associated with the Gordon Bennett Trophy. Wilbur had won the Michelin Cup in 1908, and this included a large cash prize. The cup is still displayed outside of Wright State University's Special Collections and Archives. In February 1909 they had contracted with the August Scherl Company in Berlin for a series of public flights at Templehof Field. Following the Army Trials, Katharine and Orville Wright returned to Europe to fulfil this contract, which was for about \$12,000, and also to arrange the training of several German pilots. Of course it was Glenn Curtiss in the Reims Racer who won \$5000 and the Gordon Bennett Trophy at Reims in August 1909. Orville had been greatly tempted to enter the Reims Air Races, but this time it was Wilbur who talked him out of it.

It is possible that Wilbur Wright agreed to the dangerous conditions for flying which existed at the Hudson Fulton Celebration in order to reassert the Wrights' preeminence in aviation, which was challenged by the successes of other aviators in other flying machines. Orville was also concerned about this, taking care to beat the records established by other aviators at the Reims aviation meet. Wilbur Wright recognized the importance of the role of aviation in the celebration of transportation, which was the primary focus of the Hudson-Fulton event. It was the spirit of the age.

The Hudson-Fulton Flights took place as part of a much larger celebration. The Celebration was a two week festival which including military, historical, and children's parades, a meeting of American, French, British, and German battleships in the Hudson River, fireworks, floats, speechifying, and the exterior illumination of dozens of public buildings with the wonder of electricity. The Hudson-Fulton Celebration was a recognition of the 300th anniversary (1609) of Henry Hudson's navigation up the Hudson River in search of the North West Passage. It was also named in recognition of Robert Fulton and his paddle wheel steamer known as the Clermont, which in 1807 successfully traveled from New York to Albany, inaugurating the age of travel by steamship.

Part of the Festival included the arrival in New York Harbor of full-size replicas of Hudson's Half Moon caravelle, and Fulton's Clermont. In fact, at one point while maneuvering on the Hudson near Grant's Tomb (about 120th street and Riverside Drive), the Half Moon actually rammed the Clermont. The Hudson-Fulton festivities were therefore oriented to the Hudson River, and also celebrated transportation as key elements. It was almost inevitable that someone would decide to try to attract an aeronautical exhibit for the Celebration. "The climax of three centuries of progress should be marked by the navigation of the river - or part of it - by airships."

Accordingly, a Hudson-Fulton Committee on Aeronautics was formed, chaired by James M. Beck, a New York lawyer who later



Wilbur Wright in flight during the Hudson-Fulton Celebration. The canoe is clearly visible beneath the flyer.

All images Courtesy of Wright State University, Special Collections and Archives

became a U.S. Representative for many years.

Beck and the committee's paid consultant, William J. Hammer, (an electrical engineer who would later donate his museum of light bulbs to the Smithsonian Institution)

traveled to Europe to try to interest some flyers, either aeronauts, or aviators, in the Hudson-Fulton Celebration. It was soon found that Zeppelin, Clement-Bayard and Parseval would not be able to send machines. Also, the French pioneers such as Latham, Blériot, and Louis Paulhan were not interested (due to the dozens of lucrative air meets planned in Europe in 1909). Consequently, the Committee decided to concentrate on heavier than air machines and their pilots, and the only two Americans were Glenn Curtiss and Wilbur Wright.

Wilbur Wright's subsequent contract with the Hudson-Fulton Celebration committee provided that he would be assured of \$1000 to cover expenses regardless of whether any flights were made. Also, "to the extent of his ability and so far as weather and other conditions permitted, he would give at New York a full illustration of the possibilities of flight through the air by his aeroplane." Finally, if he should succeed in making a flight of more than 10 miles or one hours' duration, he would be guaranteed a payment of \$15,000. The date of Wilbur's agreement with the Committee on Aeronautics is unknown, but it probably had to date from July or earlier in 1909.

Glenn Curtiss on the other hand agreed to fly for \$5,000 from Governors Island up the Hudson River turning at a point near Grants' Tomb and returning to Governors Island, a distance of 29 miles over a very wide river. Curtiss' success was new and he was evidently was not able to drive as hard a bargain as Wilbur Wright. The Wright Brothers had chosen August, 1909, as the date for their crackdown on the many flyers and their planes, which the Brothers saw as infringing their patents. This of course included the Herring-Curtiss Company, and especially Glenn Curtiss and his Golden Flier. News of the patent suits increased public anticipation of an aerial rivalry between Wright and Curtiss. It was likely that when the two met the atmosphere might itself be turbulent.

Governors Island at that time was primarily a military reserve consisting of Fort Jay, part of the system of defenses that had guarded New York harbor for 150 years. The Island was originally sold by New York to the U.S. government for one dollar. Most recently, the Coast Guard, its current occupant, offered to sell it back to New York for the same sum. Today, this sale is on hold pending review by the Bush Administration, which may be thinking of asking for a larger amount. At the turn of the last century, the Island was nearly doubled in size using landfill from the excavation of the Lexington Subway, and also from the dredging of the Buttermilk Channel between Governors' Island and Brooklyn. A small airfield was established by the H-F committee, on the parade ground at the southeast end of the Island. The ground is reported to have been very sandy. This in turn reportedly hurt Glenn Curtiss' efforts to fly as the wheels of his biplane tended to dig into the sand. Wilbur Wright, flying from a monorail, was unaffected by the sandy conditions.

In September 1908, as planning for the Hudson Fulton Celebration got underway, the publicist for the New York World newspaper, Mr. W.A. Johnston, devised a rich prize which would be paid for and named in honor of his employer, Joseph Pulitzer. The prize was \$10,000 for the first flight of any kind between New York and Albany. The World appointed the Aero Club of America to administer the contest.

This prize attracted the nation's leading aeronaut or balloonist, Captain Thomas Scott Baldwin, and a wealthy balloonist named George L. Tomlinson, who had recently purchased a dirigible from Baldwin. Both of these gasbags, each about 90 feet long, were powered by four cylinder Curtiss engines. W.A. Johnston kept a scrapbook that was later acquired by Wright State University's Special Collections and Archives. In the scrapbook is a report from Johnston to Pulitzer stating that the New York World was succeeding in becoming associated in the mind of the public with all of the Hudson-Fulton Flights. Not just the dirigible flights of Baldwin and Tomlinson A rather sneaky publicity maneuver! By Sept 26th, Captain Baldwin and George Tomlinson were in place waiting for the good weather that would not come until Wednesday the 29th of September.

Meanwhile, cashing a check in Dayton for \$180 for his New York expenses, Wilbur Wright set off for New York with Charlie Taylor, his mechanic, on the 18th of September. The official start date for the Hudson-Fulton Celebration was Saturday the 25th of September. Certainly, once in New York, Wilbur checked into the Park Hotel on Park Avenue where both he and Orville often stayed. There is no record of where Charlie Taylor stayed, although Wilbur gave him an extra \$50 for his expenses. Regardless, the Wright 1907 Model A type flying machine is reported to have been assembled, tuned and ready for the first available good weather by the end of the day on Saturday the 25th the start of the Celebration.

The City of New York, even in 1909, offered very few potential landing places in case of engine failure. The same is true of Brooklyn and the New Jersey shore of the Upper New York Bay. The New Jersey Palisades bound the west shore of the Hudson River and rise to a height of close to about 150 feet. Wilbur was planning on flying at not much more than that. In the quite possible event of engine failure, Wilbur would have nowhere within gliding distance to land other than in a wide and choppy river which from 42nd street north was filled with dreadnoughts and cruisers assembled for the Hudson-Fulton Celebration.

Ever thoughtful, Wilbur visited the Folsom Arms Company, an outfitters in Manhattan and purchased a red canoe and a relatively watertight canvas cover. He and Charlie suspended the canoe beneath the Flyer's skids.

The canoe thus became the first ever to fly. In later years, Orville Wright treasured the canoe, which was made of wood and very nice indeed. He could have used it at his summer home on Lambert Island, where he had a number of other canoes, boats and launches. Instead, he kept it at Hawthorn Hill in Oakwood, in memory of Wilbur and his flights in 1909. Orville Wright's Estate later gave the canoe to Carillon Historical Park in Dayton where it is well preserved although mysteriously green in color.

Wilbur also ascended New York's Singer Building, which was designed by Ernest Flagg and completed in 1907 as the tallest building in the world. The Singer building was eventually bought by U.S. Steel in 1968. They took down the graceful skyscraper and replaced it with One Liberty Plaza, a building that has lately and tragically sustained major structural damage. Wilbur Wright went up the Singer Building to assess the winds and try to get a sense for how the tall buildings of Manhattan might affect the winds flowing across the Hudson River. We know from his statement in an interview published in Scientific American October 23, 1909, that he believed correctly that turbulence was caused by "irregularities of the earth's surface". Wright may have been concerned about mechanical and thermal turbulence resulting from Manhattan's skyline. Sitting on a wing, in the open, without a seatbelt, this would have been understandable.

The Hudson-Fulton flights were scheduled to begin on September 27, a Monday. Bad weather prevented this. Glenn Curtiss had arrived back from France about the 25th of September knowing that his partner, Augustus Herring had contracted with Wanamakers department store to display the Reims Racer in New York during the Hudson-Fulton Celebration. Curtiss had therefore had a second machine powered only by a four-cylinder engine as opposed to the eight-cylinder engine he

usually used, shipped to Governors Island. It arrived there on September 26. Curtiss went to Governors Island to look over the ground, and while there, had an icy meeting with Wilbur Wright. Glenn Curtiss had then to return to Hammondsport for a celebration planned there. He did not return to Governors Island until Tuesday the 28th.

After a long period of wind and rain, the weather finally improved on the 29th of September. Curtiss had slept on Governors Island. At around six a.m., actually before dawn, and witnessed only by a friend and an Army officer, Curtiss attempted to take off. He supposedly covered 300 yards in a straight line before landing again. He then decided to change propellers and have breakfast in Manhattan. Except that Wilbur Wright arrived on the Island, just as Curtiss was about to board the ferry for the Battery. They again exchanged a few words and Wilbur is supposed to have said "It looks pretty good. I think I will take a little spin in a few minutes."

At 9:15, Wilbur took off without the assistance of a catapult, using only the familiar monorail. He flew at an altitude of from 40 to 100 feet and proceeded to circle Governors Island twice, landing back at the drill field. Total time was about 7 minutes and 10 seconds. Distance covered was estimated at 2 miles. This was not really a public flight to speak of. The spectators on Governors Island were members of the press, the Army, and friends and family of Hudson-Fulton officials. (To this day, the general public can only get access to Governors Island on special occasions). To alert spectators on Manhattan, the Hudson Fulton Celebration committee set up an elaborate signal system consisting of flags and steam whistles, stretching all the way up Manhattan Island.

New York's newspapers had been priming the City for major aerial duels between Wright and Curtiss, mentioning that the Statue of Liberty was a prime target for encirclement. At about 10:18 in the morning, Wilbur again took off, this time heading southeast over the water and passing directly over the Lusitania ocean liner, which was lined with cheering passengers on their way to England. Ships in the harbor blew their whistles. Wilbur is said have been able to feel the blast from the steam whistles on the Lusitania. He flew straight to the Statue of Liberty and to great delight circled it, returning back to land at Governors Island. The whole flight lasted less than five minutes but it was more than enough to stop the presses. Newspapers rushed out extra editions. The flight became the sensation of the town. Gradually the wind grew in strength. Despite unfavorable conditions, Wilbur again ascended and circled Governors Island flying for more than 12 minutes. Making three flights that day.

These flights were the first ever over American waters.

At Grants Tomb, on September 29, Capt. Baldwin and George Tomlinson made ready for their race to Albany. Declaring "Albany or Bust!" Baldwin took off first, setting course out over the Hudson River. Rising over the warships on the Hudson River, Baldwin's steering gear promptly jammed. He was forced to ditch in the Hudson River.

George Tomlinson fared a little better, managing to fly as far as White Plains, NY before being forced down. The Joseph Pulitzer Prize for the first flight between Albany and New York wasn't won until Curtiss came back the next year to collect it.

Two hangars had been built at opposite ends of the field, one for Curtiss and one for Wright. Some three hundred reporters were kept away from the airmen by a rope barrier guarded by soldiers under the command of Major General Leonard Wood commandant of the Island. One reporter, Earl Findlay of the New York Tribune, attempted to jump the barrier and interview Wright, and was wrestled to the ground before being escorted off the Island in disgrace. Findlay would later be the editor of the journal, U.S. Air Services.

Excitement built up among the population of New York, but for the next four days there was very bad weather. Spectators on the shore were complaining to policemen who in turn were blaming the high winds. Curtiss left on October 2, having tried and failed to fly again. On October 4 the weather

finally improved and at 9:53 am, Wilbur took off steering straight up the Hudson River.

At the Battery, wind currents caused him to waver, but he continued on up the river to a point past Grants Tomb. He was heading into the wind and this slowed his effective speed over the water. He turned around over the British battleship Drake and flew back to Governors Island this time staying closer to the Jersey shore. To quote from the official history of the Hudson Fulton Celebration "From those death dealing machines, any one of which he could have destroyed, the daring aviator was gazed at in wonder and admiration by the men-of-wars men who saluted him with flags and steam whistles." It has been estimated that more than one million people witnessed this 21-mile flight. It was exactly the flight that Curtiss had been contracted to undertake and Wilbur had done it in 33 minutes and 33 seconds.

Wilbur Wright had intended this flight to be a short demonstration of what he could do. It is clear that he was planning a much longer afternoon flight, this time up the East River crossing Manhattan, and returning down the Hudson. While the newspaper extras were ecstatic, back on Governors Island, Wilbur lunched on his favorite dessert, pie.

Spectators rushed to the Riverside Drive parks and green spaces.

At about 3:56, Wil and Charlie Taylor were turning the propellers preparing for this final duration flight when a cylinder head blew out, shot up through the upper wing, and then landed at Wilbur's feet. This ended the flights. Wilbur and Charlie left the next day for College Park, Maryland, to train the Army's first pilots. But for the last time, through the end of the year 1909, the Wright Brothers were again the world's foremost aviators, as well as the first. Wilbur Wright's Hudson-Fulton flights were a great achievement in that they demonstrated powered controlled heavier than air flight for the first time for the people of America's largest city. However, if Wilbur had been able to make one more spectacular flight on the afternoon of October 4, 1909, this achievement might not today be so forgotten.

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