The Flying Men

Who knows when a human first dreamed of flying like a bird . It is important to recognize flying, its effect on people and their communication has changed because of flight. I believe that the invention of airplanes just enhanced the way people communicate and how they relate. Literature as a form of communication, was one of the many things that was only improved by the invention of the airplane, because of several reasons.

Who invented the airplane? Orville Wright (1871 - 1948) and Wilbur Wright (1867 - 1912) American airplane inventors, brothers. "Their interest in flying aroused by Lilienthal's glider flights of 1890's."(Rosenblum 7). In addition to Lilienthal's influence, between the time Langley flew his scale models and the time his full-size Aerodrome plunged into the Potomac River, the two bicycle builders from Dayton, Ohio were busy experimenting with gliders. Wilbur and Orville Wright had first becomed interested in flying machines as children when their father brought home a whirling toy . Fascinated, they wound up the rubber band on the cork and paper toy to watch it fly again and again. They built and flew their own versions. "Throughout their lives, the brothers experimented with mechanical things Wilbur would come up with the ideas and Orville would analyse and implement them." (McMahon 23).

The two brothers opened a shop in 1896 to build and repair bicycles. The same year, Otto Lilienthal was killed when his glider crashed and the Wrights began to search the problems of human flight. After reading all the information they could find in Dayton, Wilbur wrote to the Smithsonian Instituion to ask for all the information it had on aeronautics. The brothers showed pure dedication. They read books, works by Lilienthal's The Problem of flying, Practical Experiments in Soaring, Chanute's Process in Flying Machines, and Langley's writings, among others. They discovered that no one had successfully dealt with the basic need for controlling a flying machine. Their conclusion came from a simple yet important part of communication that simply evolved with their invention : Literature.

In 1899, Wilbur and Orville Wright built their first small biplane glider and flew if on a string, like a kite. On this glider, they used a system of "wing warping" which, like in ailerons on modern airplanes, changed the angles of the wings. Combined with a stabilizing tail, warping the wings resulted in relatively controllable aircraft. "In 1900, they built a much larger glider with 17-foot wings. Instead of a tail, it had a rubber, or moveable horizontal surface, in front of the

wings, which would control the up-and-down movement of the nose." (Williams 34). "The
Wright brothers took this glider out to Kitty Hwak, Noth Carolina, where a strong, steady wind
blew over a low hill of bare sand." (Walsh 56). In October, they began to test it, first flying it
controlled from ground without a pilot, then piloted but tethered, and finally as a free-flying glider.
After many flights, and a few crashes, they discovered the rubber helped the horizontal control to
such an extent that the pilot could easily land the glider. By the end of October, the Wrights had
learned all they could from their 1900 glider and returned to Dayton to desing another with
improvements. "The Wright's 1901 glider was, like others, a wrire-braced biplane, but was
larger, with a wingspan of 22 feet and almost twice as much lifting surface as the others they
had built before." (Hobbs 42). They began flying it at Kill Devil Hills, near Kitty Hawk, in July, and
it flew so well they were able to make flights of almost 400 feet. in winds up to 27 miles per
hour. They were learning to fly and were well along the way of becoming the first skilled pilots.
Even so, as soon as they attempted to make turns, they ran into problems, which persisted in
August. Discouraged, the brothers returned to Dayton. The Wrights began to desing their
number 3 glider, which was the largest yet, after extensive laboratory research and
experimentation using a wind tunnel (a long box with a fan at one end) used to stimulate the
movement of a wing through the air. "The number 3 glider included the front elevator to control
pitch, the nose moving up and down, the wing warping system to control rolling, tipping from
side to side. They added a tail, two fixed vertical fins at the rear to prevent turns from becoming
spins." (Hobbs 67). The Wrights returned to Kitty Hawk in August 1902 to test it. Beggining in
September, the brothers made almost 1,000 flights with their number 3 glyder. It continued to
have problems with turns, so they changed its pair of fixed fins to a single, movable , vertical
rubber to control yaw, turning right and left. This solved the problem and the brothers continued
to test the glider, making flights of over 600 feet. It may have been that no one else in the world
realized that the Wrights had built an aircraft that could be fully controlled and thus genuinely
flown. They had learned all of this in no more than one hour of actual piloting. The Wright
brothers' next step was obvious: add an engine and turn a fine glider into an airplane. Of course,
others had tried this and failed badly. But no one had been as carefully and as scientific as
Orville and Wilbur Wright . The Wrights had figured out what the problems were, had solved
them one by one, and were ready to move ahead now that they new where they were

going.
"The 1903 Wright Flyer was not a powered version of the 1902 glider, but a completely new machine! It had 40 - foot wings and a 12 - horse power egine designed and built by the Wrights and mechanic Charlie Taylor. Constructed mainly from spruce and ash and covered with linen, the Flyer weighed 750 pounds with its pilot on board. Its tow propellors were behind the wing and driven by bycycle chains." (Hobbs 77). Because of bad weather, the Wright brothers did't attempt to fly the aircraft until December 14. Wilbur won the coin toss and climbed aboard as the two propellors were swung by hand and the engine started. The Flyer raced down the track and shot up into the air so steeply that it stalled and smashed into the sand. Wilbur was not accustomed to working the front rubber with the extra power of the engine and had over-controlled the plane. But they both knew that, and with little practice , they could make their machine fly. Wilbur and Orville packed up thier airplane, dragged it back to their simple workshop, and made the needed repairs. "On December 17, the weather was again suitable or flying. Since Wilbur had made the first try, it was now Orville'sturn. Five observers from the lifesaving station at Kitty Hawk had arrived to watch." (Walsh 23). The engine was fired up and Orville shook hands with, as mexicans would say "tocayo", before he climbed into the pilot's position. The Flyer moved foward along the track, as Wilbur ran beside it to steady the right wingtip. Orville pulled up on the front rubber and the Flyer lifted up into the air and flew 120 feet in 12 seconds. "As Orville later wrote, that flight was "the first in the history of the world in which a machine carrying a man had raised itself by its own power into the air in full flight, had sailed foward without reduction of speed, and had finally landed at a point as high as that from which it started." (Berliner 81).

It is incredible to see the results in today's aeronautics that began much time ago. Technically, there were and are no materials strong enough to build a strong, light aircraft that could lift both itself ans a pilot. There were no light, powerful engines to pull an aircraft through the air without adding so much weight that it could get off the ground in the first place. On a personal level, most people were convinced that humans would never fly. I believe that the invention of the airplane changed and only improved literature in the most unique way. The airplane proved all those people who had a "If we were meant to fly, we would have been born with wings" mentallity along with that western world who ridiculed the few who tried to fly, wrong! Even though Orville and Wilbur Wright were not the only ones who participated in the

great experiment to get human beings off into the sky, we must recognize them for the advances
in science, technology and communication they have brought to us, giving humans the ability to
change our way of thinking, and making the entire world more accesible bringing all sorts of
people and literature closer together. "The Wrights made an age-old dream, which had always
seemed impossible, possible." (Crouch 91).