WRIGHT "B" FLYER INC

WRIGHT LANDINGS

Issue 3, 2008 **Dayton, Ohio** **Summer 2008**

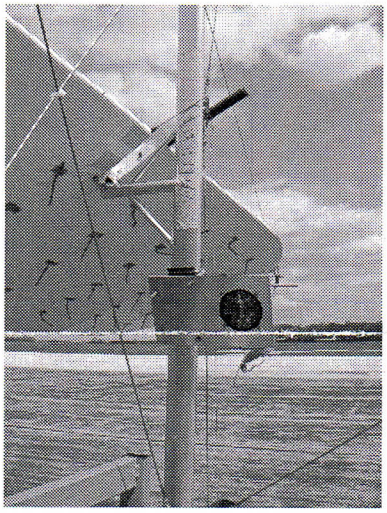
"Flyover Season" Begins

On June 5th, we had our first successful flyover of the season. We had planned to fly over a Police Memorial Ceremony downtown Dayton earlier this spring but had to cancel for low ceiling. Similarly, high winds prevented us from participating in the Oakwood Parade on May 17th. Finally, a picture-perfect day (except for high winds) made possible a flight over Cedarville University (a second attempt) and we were able to finally support a paying customer!

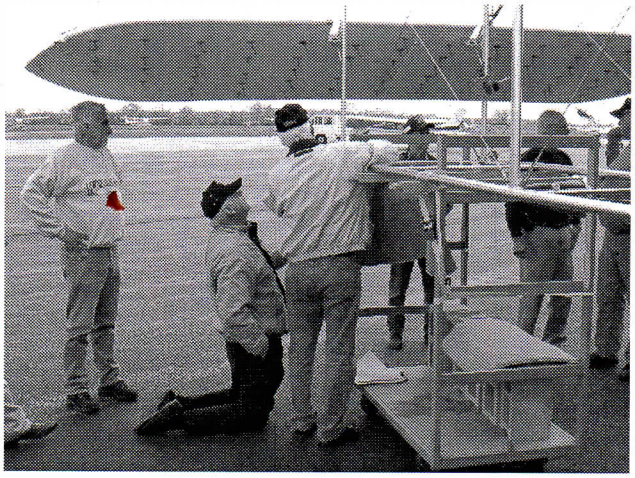
View of Cedarville University

Flutter Test

The "B in a Box" crew conducted a flutter test on the new tail assembly on 29 April and on 3 May. Jim Papa and Howie Lebovitz planned and conducted the flight test in order to guarantee the tail was flutter free. The horizontal stabilizer was "tufted" and an "instrumentation package" was added to the tail to measure and video airspeed and leading edge angular position. The tail assembly was then placed in the propwash of an Aero Commander to evaluate the velocity and quality of the airflow over the surface. Even at high power settings the Aero Commander was unable to generate sufficient airflow for the test. The following Saturday, the tail assembly was mounted in a truck and accelerated on the runway at Wright Brothers Airport. Due to the length of the runway and the performance of the truck it was difficult to obtain velocities greater than 80 mph for any duration. Input to the tail assembly was also difficult. Using a rope as the input device made it difficult to add an impulse to the elevator to excite the flutter. We were able to determine that any potential flutter mode was difficult to excite at these speeds.



Flutter Instrumentation



Jim, Howie, and Bill S. make final adjustments

Early Signal Corps Aviation

In the last issue of the newsletter we included a brief history of Orville and Wilbur's exhibition team and their flying school at Huffman Prairie. The military use of the Wright machine began about the same time. Below is a brief history of the origin of the Signal Corps' use of the Wright Flyers.

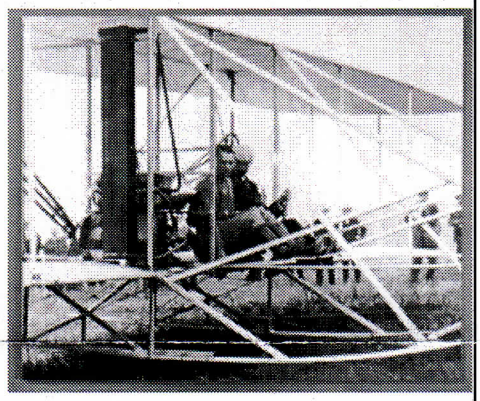
The military value of high altitude observation was recognized long before it became practical. Balloons had been used by France near the border with Belgium in 1794, and in 1849 Austrian forces tried unsuccessfully to attack Venice with unmanned balloons loaded with explosives.

The US military first used balloons during the Civil War. The Confederacy was able to construct three balloons used for reconnaissance in defense of Richmond, VA and Charleston, SC. The most prominent aeronaut of the North, Thaddeus Lowe, started a small corps consisting of eight aeronauts and seven balloons. All of the balloonists remained civilians but proved they could gather information when battle lines were stable or changing slowly. Because the balloon corps dealt with transmittal of information it was transferred to the signal officer of the Army of the Potomac, Col Albert J. Myer. Myer, who became Chief Signal Officer of the postwar Army disbanded the balloon corps shortly after the war, but the Signal Corps remained in contact with several balloonists for weather observations. (At the time the Signal Corps operated the weather service.

The Aero Club of America was founded in 1905 and consisted of industrialists, businessmen, and sportsmen interested in promoting aviation. Its stated objective was "the promotion and development of the science of aerial navigation" and it functioned as the American representative of the Federation Aeronautique Internationale, which licensed balloon pilots and certified records for distance and altitude. Under its sponsorship, balloon racing gained popularity as a new sport in which the Army actively participated.

Among the earliest balloon enthusiasts in the Signal Corps were 1st Lt. Frank Lahm, Maj Samuel Reber, and Capt Charles deForest Chandler. In July 1907, the Chief Signal Officer, Gen James Allen, was convinced to put Chandler and two enlisted men into a separate division. On August 1, the new Aeronautical Division took "charge of all matters pertaining to military ballooning, air machines, and all kindred subjects." The creation of this office satisfied those civilians, many of them members of the Aero Club, who were urging that the War Department become more actively involved in aviation.

At about the same time, the Wrights had entered negations with the Army for the sale of a Wright flying machine. The Wrights held out for $100,000 from the War Department, believing they were years ahead of their competitor. Curtiss later proved them wrong with his own design. The Wrights later agreed to accept a basic payment of $25,000 if their aircraft satisfied the basic requirements established by the War Department. A successful machine had to carry two persons with a combined weight of 350 pounds a distance of 125 miles. Desired speed was 40 mph; minimum was 36 mph. The builder would incur a penalty for every mile-per-hour below 40 and win a bonus for every one above that goal. In July 1908, before the Wrights were to demonstrate their plane, Sgt. Ivy Baldwin delivered a dirigible to the Army which met dirigible specifications. During August of that year, Baldwin trained three officers to fly the new dirigible: Lahm, Selfridge, and 1st Lt Benjamin Foulois. In September 1908 when the Wright machine was ready for Army tests, Selfridge, who had flown both a dirigible and an airplane (in Canada, Selfridge had piloted *Red Wing* or Aerodrome #1, which he helped design), obtained an appointment as an official observer for the tests conducted at Ft Myer. Also participating in the tests were Frank Lahm and Maj George O. Squier, chairman of the acceptance committee. Lahm and Squier flew first and second. On September 17, Lt Selfridge flew with Orville on the crash that ended acceptance testing that year and proved fatal for Selfridge.



Orville & Lt Selfridge

In June 1909 testing again resumed at Ft. Myer with an improved aircraft. The Wrights spent a month assembling and tuning it. Both Lahm and Foulois served as observers on the flights. On July 27, Orville, with Lahm as a passenger, fulfilled the requirement to stay aloft more than an hour and established a world's record for a flight with a passenger on board. Three days later, President Taft watched the plane return from a ten-mile cross-country speed trial between Ft. Myer and Alexandria. With Foulois on board, Orville averaged 42.5 mph, enough to win a bonus of $5,000 above the contract price of $25,000. The Army accepted the plane on August 2.

The agreement to purchase the aircraft included a requirement to train two pilots. In October 1909, Wilbur used an airfield at College Park, MD, to train Lahm and 2nd Lt. Frederic Humphreys, a replacement for Foulois who had to attend an aviation congress in Europe. By 1910, Lahm had returned to cavalry duty and Hum-

phreys had left the Army. Foulois, although untrained, became the Army's only pilot in 1910. In early 1910, the weather at College Park caused the Army to move its sole aircraft to Fort Sam Houston, Texas. By March of 1910 the Army had one aircraft and one pilot. On March 2, 1910, Foulois made the first flight in the state of Texas. He described it as his "first solo, landing, takeoff, and crash." The aircraft was repaired (numerous times) and Foulois continued to fly Signal Corps #1 (SC #1) throughout the year, making improvements to the aircraft such as the addition of a safety belt and the addition of wheels to the undercarriage. Also, on advice from the Wright brothers he removed the two elevator surfaces from the front, moving one to the rear, correcting the airplane's tendency to buck when headed into gusty winds.

Once the U.S. Government had purchased the Wright aeroplane and the Army officers had received flight instruction in 1909, the U.S. Congress provided no funds to continue developing military aeronautics until 1911. At that time, the U.S. Army Signal Corps made preparations to open an aviation school at College Park, MD. In 1911, the first specific provision of funds for aeronautics made by the U.S. Congress allowed the Signal Corps to order new airplanes: two Wright B aeroplanes (SC #3 and SC #4), two Curtiss type aeroplanes (SC #2 and SC #6), and one Burgess-Wright aeroplane (SC #5). These aircraft were sent to the field in College Park.

1st Lt. Roy C. Kirtland was assigned to oversee the establishment of the new aviation school at College Park. Kirtland served as secretary of the Aviation School and flight instructor for nearly two years. 2nd Lt. Henry H. Arnold and 2nd Lt. Thomas DeWitt Milling were selected as the first flight instructors. They were sent to the Wright Company's flying school near Dayton, OH, to receive their training and then arrived in College Park on June 15, 1911. Capt. Charles deForest Chandler reported to College Park as Commanding Officer on June 20 and was also put in charge of the Aeronautical Division in the office of the Chief Signal Officer in Washington, DC.

In November 1911, the Army Aviation School moved to Augusta, GA, for the winter, to take advantage of the milder climate. When the aircraft, personnel, and equipment returned to College Park on April 2, 1912, the entourage included several more officers, two new Wright machines, and a new two-seater Curtiss plane. During 1912, the aviation school continued to produce numerous "firsts" for American aviation and thrilled local residents and the press alike. The aviation school at College Park was witness to two fatal aeroplane crashes, that of Lt. Leighton Hazelhurst and Mr. A.L. Welch on June 11, 1912, and Lt. Lewis Rockwell and Cpl. Frank Scott on September 28, 1912. Scott was the first enlisted man to be killed in a plane crash in the U.S. Hazelhurst and Rockwell were the third and fourth U.S. Army officers killed in an aviation accident. Both aircraft involved were Wright machines.

In November 1912, as in the previous year, the aviators of the College Park school moved to a warmer winter home to continue their flying. For the 1912-13 winter season however, the Curtiss and Wright planes were sent to separate locations. The Curtiss planes, pilots and mechanics departed College Park for San Diego, CA, where they were to share Glenn Curtiss' flying facilities. The Wright planes, pilots, and mechanics returned to Augusta for a second winter season. During the winter season, the decision was made to not renew the Army's lease of the College Park field, and all the equipment stored there was shipped to North Island, San Diego, CA, where the Army's first permanent aviation school was being founded. With the departure of the last of the equipment and the expiration of the land lease on June 30, 1913, the Army Aviation School at College Park closed.

Excerpts from " Winged Shield, Winged Sword: A History of the United States Air Force"

Lt Gen Ray Johns Flies the Wright "B"

On June 5th, Lt Gen Raymond E. Johns visited the Wright "B Flyer and accepted an invitation to fly the aircraft. Lt Gen Johns is the Deputy Chief of Staff for Strategic Plans and Programs, HQ USAF, and was visiting WPAFB during the Corona conference. Gen Johns is a graduate of the USAF Test Pilot School, and has served as chief test pilot of the VC-25A (Air Force One), a White House Fellow, and Commander of the 62nd Airlift Wing (C-17). Despite high gusty winds Lt Gen Johns made two perfect landings in the Wright "B" Flyer, proving he hadn't lost his touch.

Lt Gen Johns after his flight

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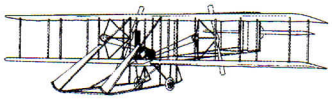
Wright "B" Flyer



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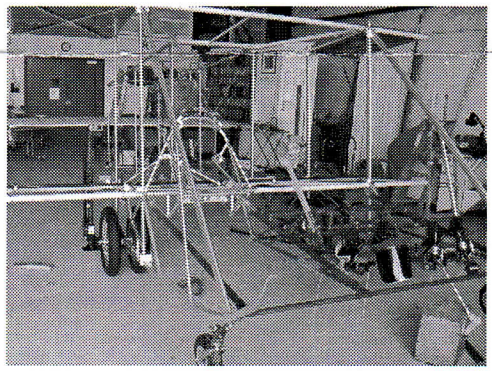
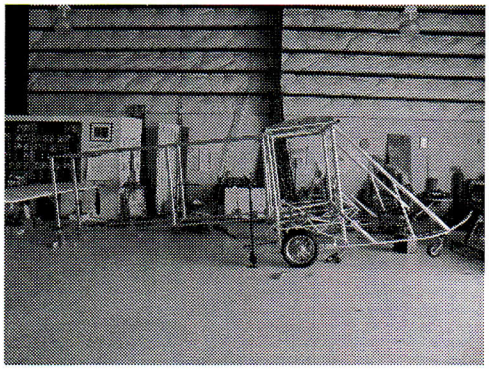
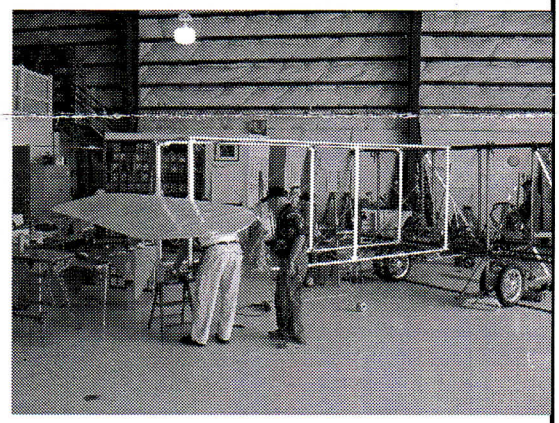




We're Getting Closer



Although the new aircraft was unable to make the commitment at Le Mans, it should definitely be able to make its first flight this year at Wright Brothers Airport. Come visit the hangar and see the status of the plane for yourself. It's making believers out of many who were cynics. Plan to be a part of our roll-out ceremony.

Mitch

Please purchase our "Leader in Flight" license plates!

http://bmv.ohio.gov/vehicle_registration/leader_in_flight.htm