

One hundred years ago this month, the Army Signal Corps created a small division that grew into the US Air Force.

The First of the Force

By John T. Correll

The US Air Force traces its origin to the establishment, on Aug. 1, 1907, of the Aeronautical Division of the Army Signal Corps. It was a small organization—three people, no airplanes—and it bore no sign of its great destiny.

Capt. Charles deForest Chandler, an experienced Signal Corps officer and balloonist, was detailed to be in charge of the division, with two enlisted men assigned to assist him. However, Pfc. Joseph E. Barrett promptly deserted, leaving Cpl. Edward Ward alone as the first enlisted airman.



The Aeronautical Division's charter was to take charge of "all matters pertaining to military ballooning, air machines, and all kindred subjects."

The Army had employed balloons sporadically for observation and other purposes since the Civil War. New prospects for aeronautics beckoned after the success of the Wright Flyer

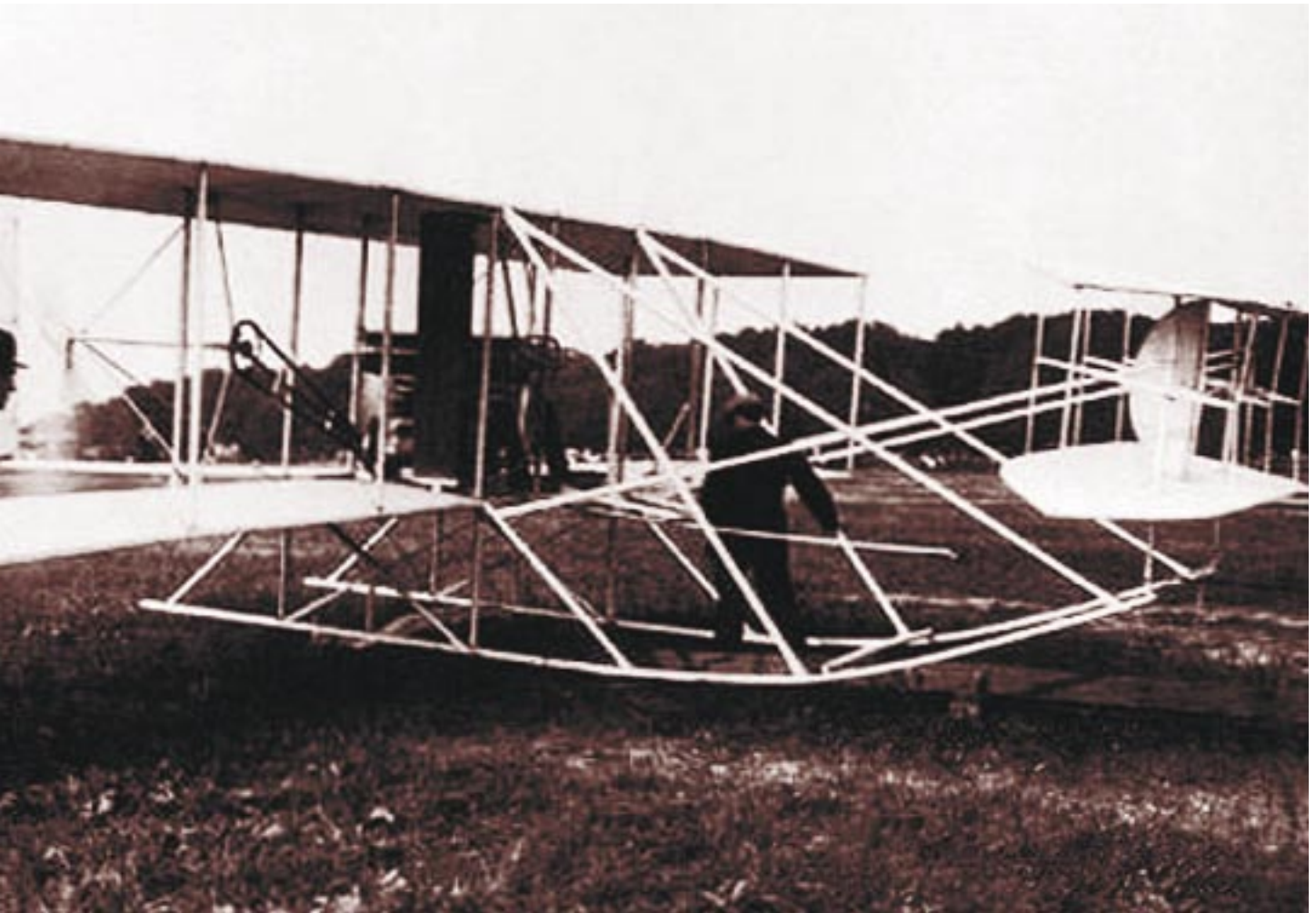
Capt. Charles deForest Chandler (holding Lewis gun) was the first commissioned airman. His pilot is 1st Lt. Roy Kirtland. Above: Signal Corps No. 1, the first US military airplane, was purchased in 1909 for \$30,000. Right: Cpl. Edward Ward, the first enlisted airman.

at Kitty Hawk in 1903. There had also been considerable progress with dirigibles—balloons that could be steered.

In 1907, the Signal Corps had a few balloons, but the Aeronautical Division

was a year old before it got its first powered flying vehicles. In fact, it took a push from President Theodore Roosevelt to get the Army to call for bids, leading to the purchase of an

Spanish-American War. In 1901, he was commissioned in the field as a second lieutenant of infantry during the Philippine insurrection. Foulois had a hot temper and a quick tongue.



airplane from the Wright brothers and a powered dirigible from Thomas S. Baldwin, a prominent balloonist and inventor. Three candidate pilots, all first lieutenants, were assigned to the Signal Corps on detached duty.

Thomas E. Selfridge, a field artillery officer, was a West Pointer with a strong interest in aviation. In the first part of 1908, he designed and flew aircraft for the Aerial Experiment Association.

Frank P. Lahm, also a West Pointer, came from the cavalry. He got his license as a balloon pilot in 1905 from the Federation Aeronautique Internationale (FAI) and, in 1906, won the International Balloon Race across the English Channel.

The most colorful of the three was Benjamin D. Foulois. He dropped out of high school, enlisted in the Army in 1898, and served in the

He said whatever was on his mind and made enemies easily.

At the Signal Corps school in 1907, Foulois wrote a thesis, “The Tactical and Strategical Value of Dirigible Balloons and Aerodynamical Flying Machines.” He predicted that airplanes would replace horse cavalry for reconnaissance. The faculty sent his paper to Signal Corps headquarters and Foulois was assigned to the Aeronautical Division.

Face-Off at Ft. Myer

The site for testing the two craft ordered by the Army was the parade ground at Ft. Myer, Va., adjacent to Arlington National Cemetery. The Baldwin dirigible arrived first, in July 1908, and was accepted by the Army the next month.

Baldwin taught Foulois, Selfridge,



Maj. Benjamin Foulois (l) and Gen. John Pershing in France. Foulois, one of the first three military pilots, taught himself how to fly.

and Lahm to fly the airship. Foulois went first and is officially credited as being the first military dirigible pilot. Once Foulois saw the Wright Flyer, though, he never flew a dirigible again. He recommended that the Army forget about dirigibles and concentrate on airplanes. The Signal Corps, with balloon officers in positions of responsibility, was not pleased.

Orville Wright brought his aircraft to Ft. Myer in August 1908. It was a variation of the 1905 Wright Flyer, modified to carry two persons. It had skids instead of wheels and was launched from a monorail starting track. The aircraft was powered along the monorail by the propellers, augmented by a catapult on days when there was no wind. When the Flyer reached takeoff speed, the pilot pulled back on the elevator lever and the airplane rose into the air.

The airplane made several demonstration flights without incident, but on a test flight Sept. 17, a propeller failed. It crashed, killing Selfridge, who was flying as the observer, and injuring Orville Wright.

The Wrights returned to Ft. Myer in June 1909 with a new airplane. It was similar to the 1908 aircraft but had a number of structural and safety improvements. There were no instruments other than an eight-inch piece of string tied to the crossbar between the two skids. The direction the string was blown in flight served as a crude turn-and-bank indicator.

On July 30, 1909, Foulois flew as navigator-observer with Orville

Wright on the final qualifying flight, which was a speed test. The Army let the Wrights choose the observer, and they picked Benny. Foulois said he was chosen partly because of his size. He stood 5-foot-6 and weighed 126 pounds. The Wrights would earn a 10 percent bonus for every mile per hour in excess of the required 40. The lighter the observer was, the better.

A crowd of 7,000 gathered at the parade ground to watch. From Ft. Myer, the airplane flew south five miles to Shooter's Hill in Alexandria, Va., rounded it, and came back, reaching an altitude of 400 feet and averaging 42.5 mph. The Army accepted the airplane and paid the Wrights \$25,000, plus a bonus of \$5,000 for the extra two mph in the speed test.

The aircraft, a Wright A Flyer, was designated Signal Corps No. 1, or S.C. No. 1, and was generally known as the Wright Military Flyer.

The acceptance tests finished, the flying program had to go elsewhere. The Ft. Myer commander wanted his parade ground back, and besides, it was too small for the safe instruction of beginners. The new location was 3.5 miles northeast of Washington D.C., a field at College Park, Md., near the Maryland Agricultural College (now the University of Maryland). The training program resumed there Oct. 8, 1909.

The Army contracted with the Wright brothers to train two officers as pilots. Foulois and Lahm were selected, but before Foulois could be trained, he was sent as the US delegate to the International Congress of Aeronautics in France. He learned later that loss of

his place as a pilot training candidate was punishment by the Signal Corps staff for his earlier remarks about the dirigible.

Second Lt. Frederick E. Humphreys from the Corps of Engineers was chosen as the substitute for Foulois. On Oct. 26, Humphreys became the first Army officer to solo. A few minutes later, Lahm became the second. Foulois returned from France but had not yet soloed when the next mishap occurred.

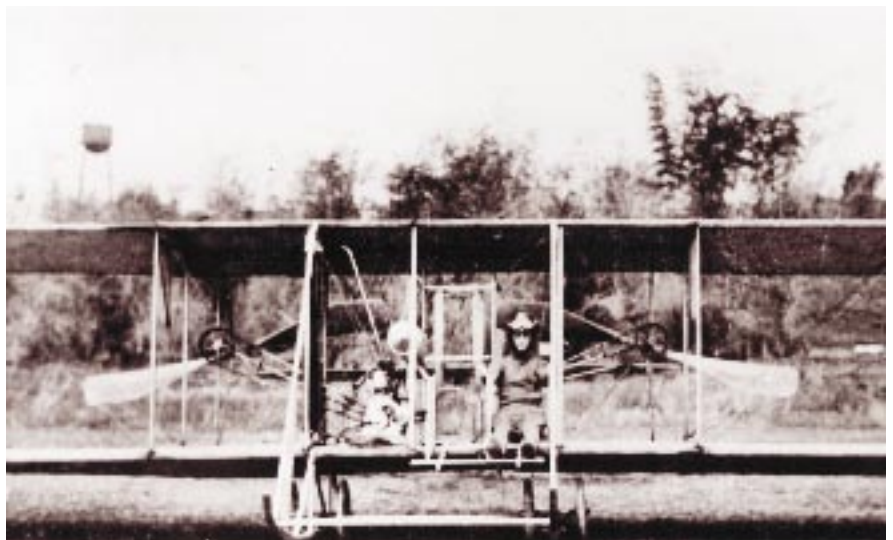
On the morning of Nov. 5, Humphreys and Lahm were flying together, Lahm at the controls, when a wing caught the ground in a low turn. The aircraft cartwheeled and crashed. Neither of the airmen was hurt, but the skids and the right wing had to be replaced.

“Teach Yourself to Fly”

The Wright brothers insisted on paying the cost to repair Signal Corps No. 1, but before parts arrived from the factory in Dayton, Ohio, the weather turned cold and blustery. Wilbur Wright was wary of the high winds, and the cold prevented further operations that year at College Park. The Wright Flyer had no cockpit.

The Wrights, having fulfilled their obligation to train two pilots, went home. Lahm and Humphreys returned to their branches. They had qualified as pilots but had not served as such.

That left only Benny Foulois—who had flown in the second seat of the Flyer but who had only 54 minutes of actual training from Wilbur Wright. The Army decided to move the program to winter quarters in Texas, where the weather would be easier on both the machine and the men. In December 1909, Foulois



Cpl. Vernon Burge, a mechanic on the S.C. No. 1, learned to fly and became the Army's first enlisted pilot.



Second Lt. Hap Arnold (r) prepares for a Nov. 2, 1912 flight at Ft. Riley, Kan. Observer is 2nd Lt. Follett Bradley, who became a pilot in 1916.

was told to take the airplane and plenty of spare parts to Ft. Sam Houston at San Antonio and “teach yourself to fly.”

The Wright Military Flyer was shipped to San Antonio in 17 wooden boxes and reassembled by eight enlisted men working under supervision from Foulois. In 1910, they built a small hangar on the post near a drill ground used by the cavalry. “On March 2, I



Col. Frederick Humphreys. As a second lieutenant on Oct. 26, 1909, Humphreys became the first military pilot to fly solo.

made my first solo, landing, takeoff, and crash,” Foulois said.

The airplane was in the repair shop for a week, but Foulois flew five times on March 12. Takeoffs and flying went better than landings, which frequently concluded in a crash. Foulois got coaching and suggestions from the Wright brothers by mail. “When in trouble in the air, put the nose down,” Wilbur Wright advised.

From November 1909 to April 1911, Foulois was the only pilot, navigator, instructor, observer, and commander in the Army’s heavier-than-air division. Once, while landing in gusty winds, Foulois was nearly thrown out of the airplane. He obtained a strap from the saddlery shop and began use of the aircraft seat belt.

Foulois asked for money to put wheels on S.C. No. 1 and was told not to “fool around” with the airplane. Undeterred, Foulois and his mechanics bolted three wheels from a farm cultivator onto the airplane in August 1910. The wheels worked well and were the first tricycle landing gear for an Army flying machine.

The Army air fleet tripled in size in April 1911 with the delivery of two more airplanes. One, a Curtiss 1911 Model D Type IV, was designated S.C. No. 2, and the other, a Wright B Flyer, was S.C. No. 3. Both of them had wheels rather than skids.

Student pilots were taught by the “grass cutting” or “short hop” method. After the student learned to handle the controls, the next step was to taxi up and down the field, eventually reaching 15 mph. The instructor stood off to

the side. The first flight, 10 feet above the ground, was the solo. The pilot worked up gradually to higher altitudes and turns.

The foremost flier of the Curtiss airplane was 1st Lt. Paul W. Beck, who came from the infantry. He was the senior pilot in military rank at Ft. Sam, and in April 1911, he was named commander of the Provisional Aero Company. On May 10, Lt. George E.M. Kelly was killed on landing in S.C. No. 2. Foulois believed that improper maintenance had been a factor in the crash and said so. He also questioned Beck’s ability to command the Provisional Aero Company and said so. The investigating board disagreed. Beck was promoted to captain and Foulois was sent to a desk job in Washington.

The Ft. Sam commander wanted no more flying at his post, and with the weather warm again, Beck and his mechanics moved the operation back to College Park. They took S.C. No. 2—which had to be rebuilt—and S.C. No. 3 with them. S.C. No. 1, the Wright Military Flyer, was worn out. It was retired and given to the Smithsonian Institution.

At College Park, the Army took delivery of its next three airplanes. S.C. No. 4 was a Wright Flyer. No. 5 was a Burgess-Wright, and No. 6 was another Curtiss.



One of the first three military pilots, 1st Lt. Thomas Selfridge was the first military man to die in an airplane crash.



Second Lt. Thomas Milling, a cavalryman, arrived for pilot training in June 1911, along with Hap Arnold. Milling and Arnold went to Dayton and learned to fly from the Wright brothers.

In June 1911, two more pilots—2nd Lt. Henry H. “Hap” Arnold (infantry) and 2nd Lt. Thomas DeWitt Milling (cavalry)—arrived for duty. Other than Beck, they were the only two pilots then on flying duty with the Army. In his memoirs, Arnold described Beck’s status as a pilot as “doubtful,” but that was a matter of Arnold’s opinion of the Curtiss “short hop” training methods.

Arnold and Milling had gone to Dayton and learned to fly with the Wright brothers. Their training lasted 11 days. It would have been over in 10 days except that the Wrights did not believe in flying on Sunday.

One of Arnold’s first duties at College Park was to teach flying to Charles Chandler, back for his second tour as head of the Aeronautical Division. Arnold also introduced flying goggles—which became standard equipment for open cockpit aviators—after he got a bug in his eye while landing.

In the early days of Army flying, accreditation of pilots was informal. An officer was a pilot when the Wright brothers or Glenn Curtiss said he was. In 1912, the Army established formal standards for the award of the military aviator rating. Five officers qualified in July 1912 and were recognized as pilots in the Army Register. First on the list was Hap Arnold, followed by Chandler, Milling, Beck, and Foulois.

In 1912, the Army sent one airplane

(a Wright B Flyer, S.C. No. 7) to the Philippines, where Lahm, who was on duty with the 7th Cavalry, established a flying school. Lahm taught Cpl. Vernon L. Burge, a “mechanician” who had gone to the Philippines with

the airplane, to fly. He became in June 1912 the Army’s first enlisted aviator, and earned his FAI certificate.

Eddie Ward, the first airman and previously Burge’s boss on a balloon handling crew, was then in the Philippines as well, but Lahm did not teach him to fly or bring him to the cadre of the flying school. In a study for the Air Force Sergeants Association, George E. Hicks said there was “bad blood” between Lahm and Ward.

The Army’s first tactical air unit, the 1st Provisional Aero Squadron, was organized in March 1913. Foulois had wangled his way back onto flying status and was the commander. In 1916, he took the squadron and its Curtiss JN-2 airplanes to Mexico to help Gen. John J. Pershing in his pursuit of Pancho Villa.

The Aviation Section

On July 18, 1914, Congress created the Aviation Section of the Signal Corps, which gave the air arm a status defined in law. Up to then, pilots were on temporary detail from their branches and could not choose military aeronautics as a career.

The Aviation Section was authorized 60 aviation officers plus 260 enlisted men, but its actual strength was considerably less than that. The original or-



As a first lieutenant, Frank Lahm, also a cavalryman, became one of the first two Army pilots trained to fly an airplane, and the second to solo. He later taught Vernon Burge how to fly.



Lt. Col. Paul Beck. He came to Ft. Sam Houston, Tex., as an infantryman and became the third man to qualify as a military aviator. He later commanded the Provisional Aero Company.

ganization, the Aeronautical Division, continued to exist as the Washington office of the Aviation Section. The air arm remained a part of the Signal Corps until establishment of the Army Air Service in May 1918.

As for the original airmen who got the project under way:

■ Charles Chandler, who had been the first chief of the Aeronautical Division, retired from the Army as a colonel in 1920. He continued his interest in ballooning as a civilian.

■ Eddie Ward, the first enlisted man in the Aeronautical Division, was commissioned in World War I. He earned his FAI certificate as a balloon pilot in 1921 and retired as a captain in 1930.

■ Pfc. Joseph Barrett, who deserted the Aeronautical Division in 1907, was a strange case. At some later point, he joined the Navy, in which he had served before, and retired honorably after 20 years of service.

■ Frank Lahm became assistant chief of the Air Corps in 1926 and retired in 1941 as a brigadier general. He and Chandler wrote a book, *How Our Army Grew Wings*, which was published in 1943.

■ Frederick Humphreys, who had been first to solo, resigned from the Army in 1910. He remained in the National Guard and was called to active duty for the Pancho Villa expedition and for World War I. He ran the fam-

ily business, a homeopathic medicine firm, and retired from the Guard as a brigadier general in 1939.

■ Paul Beck returned to duty with the infantry and rose to the grade of lieutenant colonel. In 1922, while commander of the airfield at Ft. Sill, Okla., he was shot and killed in a domestic dispute.

■ Vernon Burge, the first enlisted pilot, was commissioned in 1917. As a captain in 1922, he was on the Army board that investigated the shooting death of Paul Beck. Burge served as an Air Corps pilot until his retirement as a colonel in 1942.

■ Thomas Milling was chief of staff to Brig. Gen. Billy Mitchell in World War I and retired in 1933. He returned to active duty as a staff officer during World War II and retired again in 1946. He was promoted to brigadier general on the retired list.

■ Hap Arnold won the MacKay Trophy for outstanding flight two times. He narrowly avoided court-martial in the 1920s for his aggressive support of Billy Mitchell. He was the wartime Chief of the Army Air Forces and founding father of the US Air Force. He is the only person ever promoted to five-star rank in two services: General

of the Army in 1944 and in 1949, the first (and only) five-star General of the Air Force.

■ Benny Foulois was temporarily promoted to brigadier general and sent to France in World War I as chief of Air Service for the American Expeditionary Forces. Billy Mitchell, Air Service commander for the Zone of the Advance, was already there and well established as the air combat leader. Foulois and Mitchell took an instant and lifelong dislike to each other and quarreled constantly. Gen. John Pershing installed Maj. Gen. Mason M. Patrick above both of them with orders to settle them down. When Foulois wrote his memoirs, he heaped disdain on "Mitchell and his worshippers."

As it turned out Foulois outlasted all of the others. He reverted to the grade of major after World War I but reached major general in 1931 and was made Chief of the Air Corps. In that capacity, he managed to antagonize and alienate the War Department, the Army General Staff, the White House, and Congress. When he retired in 1935, there was no ceremony, no farewell messages, and nobody from the War Department came to say goodbye. He refused an offer of return to active duty in World War II because he did not want a desk job.

By the 1960s, Foulois had outlived his adversaries, but he was not too old to make new ones. Air Force historian John F. Shiner recalled the incident in *Makers of the US Air Force*:

"President Lyndon Johnson, who was running against Sen. Barry Goldwater in the 1964 Presidential campaign, was persuaded that a special medal should be struck for the 85-year-old warrior," Shiner said. "A ceremony was held in the East Room of the White House, complete with distinguished guests, speeches honoring Foulois, and presentation of the medal by President Johnson. Foulois responded with a few remarks on the state of the nation and the world, then pointing to the paneled entrance said: 'I hope to see President Barry Goldwater walk through that door next year.' There were no late departures from the ceremony."

Foulois died in 1967, full of fire and determination to the end. ■

John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributing editor. His most recent article, "A Brush With the Air Force" appeared in the July issue.