THE "LONE EAGLE" VISITS BIRMINGHAM
OCTOBER 1927
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During WW2, Lindbergh was a key figure in improving the performance of the P-38 aircraft. Working as a civilian contractor in the South Pacific during 1944, he was instrumental in extending the range of the P-38 through improved throttle settings, or engine-leaning techniques, notably by reducing engine speed to 1,600 rpm, setting the carburetors for auto-lean and flying at 185 mph. This reduced the P-38s fuel consumption to 70 gal/h.

Ground crews had noticed that Lindbergh returned from missions with more fuel than the other pilots based on the engine settings he employed. But the procedure was controversial because P-38 pilots had been taught that this procedure would damage the engine. Lindbergh promptly replied, "These are military engines, built to take punishment. So punish them." Soon, all the pilots adopted his approach, which worked and saved the lives of many U.S. pilots on long-range missions over the vast Pacific.

In 1927, Charles Lindbergh's solo transatlantic flight further sparked public interest in aviation. Local civic boosters, federal initiatives through the Department of Commerce, and the creation of the airmail system, combined with public interest, produced a boom in building airports. Following his sensational first solo flight from New York to Paris in May of 1927, 25-year old Lindbergh embarked on a three month flying tour of the United States. Flying his famous plane, *Spirit of St. Louis*, he touched down in all 48 states, visited 92 cities, gave 147 speeches, and rode 1,290 miles in parades. Airmail usage exploded overnight as a result, and the public began to view airplanes as a viable means of travel.

Lindbergh had several Alabama "connections." He bought his first plane, a "Jenny," from Glenn Messer and perhaps soloed for the first time in this plane. He barnstormed Alabama in 1924, and his father had a half-brother, Augustus, who had worked for Frisco Railroad in western Jefferson County.

The highlight for Birmingham aviation occurred on October 5, 1927, when Lindbergh first flew for 4-hours, 40-minutes from Memphis to Chattanooga, and then made a 2-hour, 30-minute direct flight from Chattanooga to Birmingham. After the *Spirit of St. Louis* landed at Roberts Field, Lindbergh held a press conference at the original Tutwiler Hotel and attended a banquet in his honor at the Municipal (Boutwell) Auditorium. In his speech, he talked of the importance of investing in aviation infrastructure and that sparked the construction plans for a new municipal airport in Birmingham. The next day, he made the flight from Birmingham to Jackson, Mississippi as he continued his U.S. flying tour.
IN THE MONTH OF OCTOBER……..

The Bell P-59A “Airacomet”, made the first flight of a United States turbojet aircraft on October 2, 1942.

Russia launched the first Earth satellite on October 4, 1957, a 184-lb. “Sputnik” that attained an orbital velocity of 5 miles per second.

On October 14, 1947, Capt. Charles “Chuck” Yeager became the first person to fly faster than sound. Yeager “breaks the sound barrier” in his Bell X-1 airplane, “Glamorous Glennis,” named after his wife. He was able to reach 670 mph or Mach 1.015 at Muroc Dry Lake (now Edwards AFB), California.

IN DEVELOPMENT
A SPIRIT OF ST. LOUIS FLIGHT SIMULATOR.

The Spirit of St. Louis had no front windshield — but it sported a periscope. It had a total fuel capacity of 450 gallons of gasoline, which was necessary in order to have the range to make the trans-Atlantic flight non-stop. The fuel was stored in five fuel tanks. The large main and forward fuel tanks were placed in the forward section of the fuselage, in front of the pilot, with the oil tank acting as a firewall. This arrangement improved the center of gravity but this meant that there could be no front windshield. This did not concern Lindbergh as he was used to flying in the rear cockpit of mail planes with mail bags in the front. When he wanted to see forward, he would slightly yaw the aircraft and look out the side. To provide some forward vision as a precaution against hitting structures while flying at low altitude, a Ryan employee who had served in the submarine service installed a periscope. It is unclear whether the periscope was used during the flight. The instrument panel housed fuel pressure, oil pressure and temperature gauges, a clock, altimeter, tachometer, airspeed indicator, bank and turn indicator, and a liquid magnetic compass. The main compass was mounted behind Lindbergh in the cockpit, and he read it using the mirror from a women's makeup case which was mounted to the ceiling using chewing gum.

Lindbergh sat in a cramped cockpit which was 36 in × 32 in × 51 in high. The cockpit was so small, Lindbergh could not stretch his legs.

The museum’s Restoration Team is constructing a “Spirit” cockpit flight simulator where museum visitors can experience flying “blind”. The screen in the simulator will only show the various instruments that were installed on the original Ryan NYP. When completed, our museum visitors might be able to imagine and better appreciate what flying challenges Lindbergh experienced during his historic flight.
Glenn Curtiss, founder of Curtiss Aeroplane and Motor Company and known as “the father of Naval Aviation” provided training for pilots and the development and production of early flying boats. The company's first major order was for 144 various sub-types of the Model F trainer flying boat.

During World War 1, the U.S. Navy commissioned Curtiss to build flying boats with enough range to guard U.S. ships in the Atlantic against German submarines. Curtiss built four, NC-1 through NC-4 (“NC” stood for “Navy-Curtiss”), but the war ended before the craft could enter service.

On May 8, 1919, NC-1, NC-3, and NC-4, each with six crew members, took off from Rockaway Naval Air Station on Long Island, bound for Halifax, Nova Scotia. (NC-2 had been damaged and was grounded; it served as a source for spare parts for the other “Nancies,” as the Navy called the NCs). On May 16, the three craft left Canada for the long haul over the Atlantic. To help the effort, the Navy stationed ships across the ocean to serve as navigation aids.

As the NCs approached the Azores, located 600 miles from Portugal, the weather turned miserable—rainy and foggy. The crews of the NC-1 and NC-3 landed their craft on the sea to await clearer weather, but they sustained damage and were unable to take off. The NC-1 crew was picked up by a Greek steamer. NC-3 drifted over 200 miles before it got to the Azores. NC-4 had better luck.

On May 27, NC-4 finally landed in the Tagus River of Lisbon, Portugal. “We are safely on the other side of the pond,” Lieutenant Commander Albert Read radioed. “The job is finished.”

In childhood, Lindbergh showed exceptional mechanical ability. At the age of 18 years, he entered the University of Wisconsin to study engineering. After only two years, he left school to become a barnstormer. In 1924, he enlisted in the United States Army so that he could be trained as an Army Air Service Reserve pilot and after graduating in 1925, Robertson Aircraft Corporation of St. Louis hired him to be a mail carrier.

In 1919, a NYC hotel owner named Raymond Orteig offered $25,000 to the first aviator to fly nonstop from New York to Paris. Although several pilots were killed or injured while competing, by 1927 it still had not been won. Lindbergh believed he could win it if he had the right airplane. He persuaded nine St. Louis businessmen to help him finance the cost of a plane and chose Ryan Aeronautical Company to produce a special plane, which he helped design. Late in April 1927, the work on the aircraft was completed and was painted silver with black lettering. Lindbergh made several test flights, and then flew the aircraft from San Diego to New York on May 10-12, making only one stop at St. Louis with a flight time of 21 hours, 40 minutes setting a new transcontinental record.

As he prepared for the transcontinental flight, certain modifications to the Ryan M-2 basic high-wing, strut-braced monoplane design had to be adjusted. The pilot could see forward only by means of a periscope or by turning the aircraft to look out a side window.

Lindbergh took off for Paris on the morning of May 20, 1927. With a final flight time of 33 hours, 30 minutes, and 3,610 miles, he landed safely at Le Bourget Field, near Paris, where he was greeted by a crowd of 100,000. Lindbergh and the Spirit of St Louis returned to the United States aboard the USS Memphis on June 11 and Lindbergh became a world hero.