

Developments in Transportation

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The First Commercial U.S. Railway

This text and images are from "America's Story from America's Library" by the Library of Congress.



"Peter Cooper's Tom Thumb." Bureau of Public Roads, Department of Commerce, between 1900 and 1950. Prints and Photographs Division, Library of Congress.

Peter Cooper's steam engine, Tom Thumb

On February 28, 1827, the Baltimore & Ohio Railroad became the first U.S. railway chartered for commercial transport of passengers and freight. There were skeptics who doubted that a steam engine could work along steep, winding grades, but the Tom Thumb, designed by Peter Cooper, put an end to their doubts. Investors hoped a railroad would allow Baltimore, the second largest U.S. city at the time, to successfully compete with New York for western trade.

The first railroad track in the United States was only 13 miles long, but it caused a lot of excitement when it opened in 1830. Charles Carroll, the last surviving signer of the Declaration of Independence, laid the first stone when construction on the track began at Baltimore harbor on July 4, 1828.

Baltimore and the Ohio River were connected by rail in 1852, when the B&O was completed at Wheeling, West Virginia. Later extensions brought the line to Chicago, St. Louis, and Cleveland. In 1869, the Central Pacific line and the Union Pacific line joined to create the first transcontinental railroad. Pioneers continued to travel west by covered wagon, but as trains became faster and more frequent, settlements across the continent grew larger and more quickly.

Train travel continues to hold a romantic appeal for many people. Songs, stories, poems and plays have been written about the railways. Do you know any songs or stories about the railways?

The Opening of the New York Subway

This text and image are from "America's Story from America's Library" by the Library of Congress.



"City Hall subway station, New York," ca. 1900-1906. Prints and Photographs Division, Library of Congress. Reproduction Number LC-D401-17293.

City Hall subway station in New York, around 1906

In London, it's "the Tube"; in Paris, it's the Metro; and in New York City, it's the subway!

If you have ever been to New York or seen it in movies or on TV, you have seen the streets full of cars and pedestrian traffic. New York City, even at the turn of the 20th century, had been in desperate need of a transportation system for years to help ease the congestion of pedestrians, horses, wagons, and carriages.

Finally overcoming legal, political, and financial problems, the Rapid Transit Subway Construction Company was formed and started construction on New York City's famous subway in March 1900.

On Thursday afternoon, October 27, 1904, the mayor of New York City, George B. McClellan, officially opened the New York City subway system. The first subway train left City Hall station with the mayor at the controls, and 26 minutes later arrived at 145th Street. The subway opened to the general public at 7 p.m. that evening, and before the night was over, more than 110,000 passengers had ridden the trains through the underground tunnels.

The First American Automobile Race

This text and images are from "America's Story from America's Library" by the Library of Congress.

Auto races of today, such as the Indianapolis 500, have sleek, colorful cars screeching around a racetrack at speeds so fast that some spin off into the sides of the track, flipping over as they go.



"H.S. Harkness in his Mercedes-Simplex, winning five-miles event in 6:1 3-5, Grosse Pointe track, Detroit," 1902. Prints and Photographs Division, Library of Congress. Reproduction Number LC-D4-14744 DLC.

Racecar driving had come a long way by the time this Mercedes-Simplex won on the Grosse Pointe track in Detroit in 1902.

Back in 1895, auto racing was just beginning and it was a very different sort of sport. On November 28, 1895, six "motocycles" (a nickname for a horseless vehicle) left Chicago's Jackson Park at 8:55 a.m. for a 54-mile race to Evanston, Illinois, and back through the snow. The winner, Number 5, driven by inventor J. Frank Duryea, won the race in just over 10 hours with an average speed of 7.3 miles per hour!

The Chicago Times Herald sponsored that first race with \$2,000 going to the winner and \$500 to the fan who named the horseless vehicles "motocycles."



Jackson Park, 1908. Prints and Photographs Division, Library of Congress. Call Number PAN US GEOG - Illinois no. 11.

Chicago's Jackson Park, where the first American automobile race took place

Two years earlier, the winners, J. Frank Duryea and his brother Charles, had built and driven what they claimed to be the first American gasoline-powered automobile. Yet by the time the Times Herald race came along, more than 70 entries were filed. This huge response prompted President Cleveland to ask the War Department to oversee the event. After their victory, the Duryeas made 13 copies of the Chicago car, and J. Frank Duryea developed the Stevens-Duryea, an expensive limousine that remained in production into the 1920s.

The Duryeas were not the only people inventing cars. The Stanley twins built a steam-powered vehicle, the "Stanley Steamer" in 1897. The vehicle achieved fame when F.E. Stanley did a mile in 2 minutes 11 seconds on a dirt track with a 30-degree incline. Eventually the "Stanley Steamer" became known as the "Locomobile." By the time Henry Ford incorporated the Ford Motor Company in 1903, the Stanley plant already employed 140 workers.

A Railway to the Keys

This text and image are from "America's Story from America's Library" by the Library of Congress.



"Mr. H. M. Flagler and party leaving first train to arrive at Key West, Fla. Oversea Florida East Coast R. R.," ca.1912. Prints and Photographs Division, Library of Congress. Reproduction Number LC-USZ62-122052.

Mr. Flagler takes a train over the ocean to Key West, Florida.

How would you get to an island 128 miles away? By boat? By plane? Well, in the early 1900s Henry M. Flagler, a Florida developer, decided a train would be a practical way for people to get to the island of Key West, Florida.

To complete the railway, 42 bridges had to be constructed. The length of track connected mainland Florida to the southernmost settlement in the United States and the keys (islands) in between. On January 22, 1912, Flagler boarded the first train of the Florida East Coast Railway bound for Key West.

Twenty thousand people lived on the small island of Key West in 1912. On January 22, 1912, almost every one of them showed up to watch Henry Flagler and the train arrive in their city.

In 1935, a hurricane destroyed the railway. By 1938, it was replaced by the world's longest over-water road, called the Overseas Highway. If you happen to find yourself in Florida, driving across today's ocean highway to Key West, wouldn't it be fun to think of getting there by train?

The Wrights' First Flight

This text and images are from "America's Story from America's Library" by the Library of Congress.



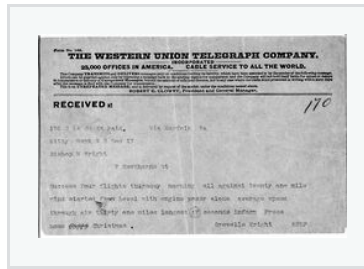
Daniels, John T., photographer. First Flight, Kitty Hawk, North Carolina, 1903. Prints and Photographs Division, Library of Congress. Reproduction Number LC-DIG-ppprs-00626.

Orville Wright piloted the first flight ever of a heavier-than-air machine.

"For some years, I have been afflicted with the belief that flight is possible to man. My disease has increased in severity and I feel that it will soon cost me an increased amount of money if not my life." Three years after Wilbur Wright wrote those words, he and his brother Orville put their belief in flight to the test in Kill Devil Hills, North Carolina, using an airplane they had built in sections in the back room of their Dayton, Ohio bicycle shop.

Orville piloted the first flight, which lasted just 12 seconds. On the fourth and final flight of the day, Wilbur flew for 59 seconds. Both brothers survived that morning, December 17, 1903. That day they became the first people to demonstrate sustained flight of a heavier-than-air machine under the complete control of the pilot. What did the brothers do after their exciting success?

Orville and Wilbur Wright walked four miles to Kitty Hawk and sent a telegram to their father: "Success four flights Thursday morning all against twenty one mile wind started from level with engine power alone average speed through air thirty one miles longest 57 seconds inform Press home Christmas."



Wright, Orville. "Telegram, Orville Wright to Bishop Milton Wright, Announcing the First Successful Powered Flight," 1903. Manuscript Division, Library of Congress. Reproduction Number LC-MSS-46706-5.

Telegram sent by the Wright Brothers to their father on December 17, 1903

The world was about to change forever.

The announcement of the Wright brothers' successful flight ignited the world's passion for flying. Engineers designed their own flying machines, people of all ages wanted to see the flights, and others wanted to sit behind the controls and fly. The brothers continued to make longer and faster flights.

The U.S. Army, seeing potential in the new technology, signed a contract with the Wright brothers in 1908 for the purchase of a machine that could travel with a passenger at a speed of 40 miles per hour. Today's commercial jet airplanes routinely travel at 600 miles per hour.

Charles Lindbergh's Flight

This text and image are from "America's Story from America's Library" by the Library of Congress.



Charles A. Lindbergh, with Spirit of St. Louis in background, May 31, 1927, ca. 1927. Prints and Photographs Division, Library of Congress. Reproduction Number LC-USZ62-22847.

Charles Lindbergh and the Spirit of St. Louis, May 1927

Today it may not seem very impressive to fly from New York to Paris, but the first time it happened, it was extraordinary!

The man who made that first solo trans-Atlantic flight was Charles Lindbergh. In May 1927, he flew his monoplane, *Spirit of St. Louis*, from New York to Paris, France. It took him thirty-three and a half hours to make the trip.

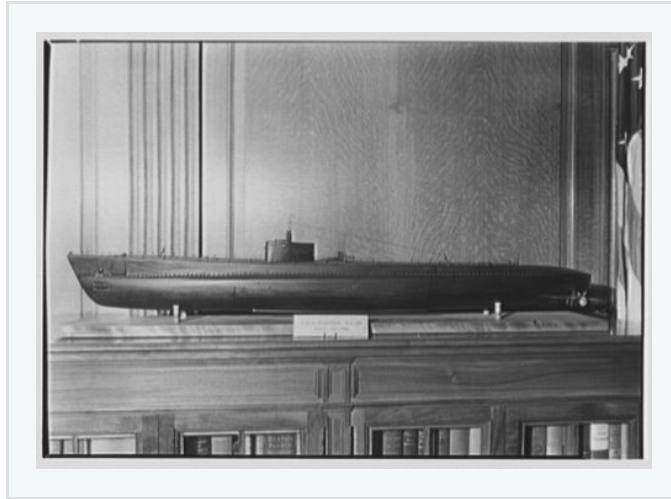
Charles "Lindy" Lindbergh made his flight alone. He won a prize of \$25,000 and went from being a stunt pilot to an American hero. When he landed back in the U.S., there was a huge ticker tape parade in New York and a big reception in Washington, D.C. On June 11, 1927, he received the Distinguished Flying Cross.

Lots of people are fascinated by the idea of human flight. Did you know that eight years after Lindbergh's trip, Amelia Earhart became the first person to complete an even longer flight from Hawaii to California? (She later apparently died in a mysterious plane crash as she attempted to fly

around the world in 1937.) Today, some people fly across the country for work and return home on the same day. Do you think that someday we'll make the same sort of trips into space?

The U.S. Navy's First Submarine

This text and images are from "America's Story from America's Library" by the Library of Congress.



Gottscho-Schleisner, Inc., photographer. "Seamen's Bank for Savings, 74 Wall St., New York City. Model of submarine," 1943. Prints and Photographs Division, Library of Congress. Reproduction Number LC-G612-T-43385.

A model of the modern submarine, 1943

Can you imagine traveling beneath the surface of the ocean? The modern submarine made this possible. On April 11, 1900, the U.S. Navy acquired its first submarine, a 53-foot craft named after its designer, Irish immigrant John P. Holland (1840–1914). The *Holland* served as a blueprint for modern submarine design. Gasoline propelled it on the surface, and electricity propelled it when it was submerged. By World War I, *Holland*-inspired vessels were a part of large naval fleets throughout the world. However, the idea for a boat that could travel underwater goes back long before that.



"The Detroit news timely topics. Uncle Sam's largest submarine,"
1915-1930. Prints and Photographs Division, Library of Congress.
Reproduction Number LC-D420-2999 DLC.

During World War I, this was the US's largest submarine.

Designs for underwater boats date back to the 1500s. In the 19th century, the first useful submarines began to appear. During the Civil War, the Confederates built the *H.L. Hunley*, a submarine that sank a Union ship, the *U.S.S. Housatonic*, in 1864. But it wasn't until World War I that the first truly practical submarines emerged.

Have you ever been on a submarine? Ask your family if they have and what it's like.