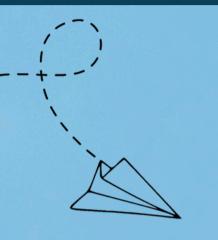


# OHIO AIR & SPACE TRAIL Come Fly With Us





### **AMERICA 250-OHIO PROGRAM**

"The desire to fly is an idea handed down to us by our ancestors who... looked enviously on the birds soaring freely through space... on the infinite highway of the air."

-Wilbur Wright

Visionary Sponsor







Come Fly with Us! <u>america250-ohio.org/trails-and-tales/</u>



# Stories Awaiting Your Discovery

The Ohio Air & Space Trail shares the story of Ohio's aviation history from the birthplace of aviation to current aviation feats and spectacles. The sites on the Trail cover the entire state, so there is something close to everyone.





#### **Birthplace of Aviation**

Without the invention of flight, our world would be a different place. Thanks to Dayton brothers Wilbur and Orville Wright, it's a world we don't have to imagine. Their success in creating the first practical plane inspired others and led to more aviation milestones made in Ohio, including the first passenger airship, advancements in control systems for planes like the Benoist Type XII, and early monoplanes.



#### Innovations

Ohio nurtured and drew creative minds to achieve innovation in air and space technologies. Because of this work, air travel is now our preferred method of long-distance travel. Explore Akron's lighter-than-air development and the creation of the free-fall parachute at McCook Field in Dayton. Learn about an Ohio engineer's contribution to stealth technology, how Ohio's automobile industry inspired aviation breakthroughs, and ongoing discoveries that improve the efficiency, practicality, and safety of flying.



#### Service to Country

Ohio produced pilots, crews, planes, parts and materials for war efforts. During WWII, it was among the top states who contributed soldiers and played a key industrial role in the production of supplies. Hear stories from Tuskegee airmen. Learn how women were vital in the war effort, working as "Rosies" in many Ohio factories, serving as pilots through the WASP program and training as engineers as Curtiss-Wright Cadettes. Ohioans also founded the Aerial Nurse Corps and the Civil Air Patrol.

#### **Teaching People to Fly**

The discovery of flight produced the need to train pilots. With each war, the need grew greater. From the Wright Brothers Flying School at Huffman Field to Wright-Patterson Air Force Base, discover how Ohio trained military and civilian pilots. Explore early flight simulators, as well as NASA's Space Shuttle Crew Compartment Container used to prepare crews for orbit. Ohio continues to launch state-of-the-art training and has announced construction of a commercial astronaut training program near Cleveland.

#### **Preservation + Flying Experiences**

There are many places and people in Ohio dedicated to preserving historic aircraft and the stories that go along with them. In fact, the National Aviation Heritage Area is dedicated by Congress to preserve and promote the Dayton region's legacy to aviation. Some of our mapped sites bring you even closer to the past by providing flying experiences in vintage aircraft, allowing you to experience the feeling, sights and sounds across aviation eras - early flight, the golden age and the war years.



#### **Space Exploration**

Among the 26 astronauts hailing from Ohio was the first astronaut to orbit earth and the first to place a boot on the moon. Ohioans advanced women in space, conducted important aerospace research, and produced key components that made space flight possible. Today, there are NASA research and testing stations, more than 550 aviation and aerospace manufacturers and world-class opportunities for STEM education that keep Ohioans reaching for the stars.



#### Aviation Feats + Spectacles

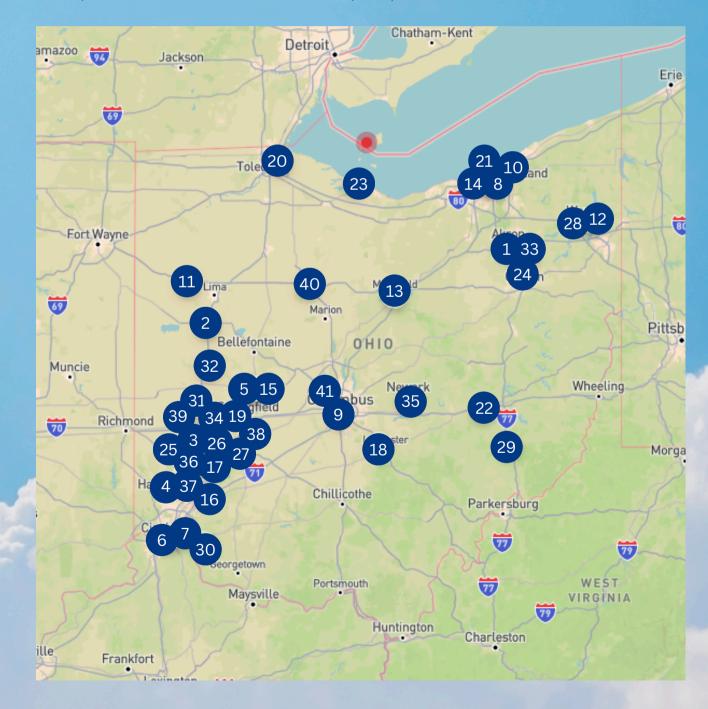
Aviation at its heart is a quest for adventure. Stories abound about stunt-flyers, air races, movie flyers, and solo flights, like the one that Columbus native Jerrie Mock made as the first women to successfully fly around the world in 1964. As these courageous pilots take to the sky, they never know who's watching. A 17-year-old John Glenn attended the Cleveland air races with his father, and it changed history. Glenn says of the experience watching the spectacle, "Flying beckoned me like never before."



Before Wapakoneta native Neil Armstrong walked on the moon, the Wright brothers invented the first controlled airplane in their small Dayton bike shop. William Grimes illuminated night flights through the invention of aviation lighting just a few miles from the Wrights' test field. A pair of scientists in a top-secret laboratory in Miamisburg created spacecraft power systems that made exploration of deep space possible. These are just a few examples of how Ohioans propelled aviation and space exploration. Today, Ohio remains at the epicenter of aviation and aerospace research, innovation and manufacturing.

Follow in the footsteps (or flight paths) of pioneer aviators, innovators and explorers who helped the world take flight. Explore more than 35 museums and historic sites to learn more about Ohio's contribution to aviation and aerospace.

Please confirm days and hours of operation, as some sites have limited access. You may also want to plan visits around demonstrations, special events, lectures and hands-on workshops, so please refer to each site's website for information.





#### **1** Akron History Center

The Goodyear Tire & Rubber Company has contributed to aviation and space exploration for more than a century. Akron was the center of lighterthan-air construction during World War I, making military airships and balloons. The Akron History Center honors Judith Resnik, the second female astronaut in the United States, who tragically perished on the *Space Shuttle Challenger.* 

172 S. Main St., Akron

akronhistorycenter.org

- Visitor information for nearby attractions, dining and lodging: Akron/Summit Convention & Visitors Bureau

#### 2 Armstrong Air & Space Museum

Neil Armstrong, a Wapakoneta native, was the first man to walk on the moon. This museum celebrates his journey from boyhood to global space pioneer with artifacts and interactive displays. Ohio's contributions to American aviation are also on display, including a moon rock. 500 Apollo Dr., Wapakoneta

armstrongmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Great Lake Region Visitors Center</u>

#### **3** Aviation Trail Parachute Museum

Explore the development of the freefall parachute from its first deployment from a disabled aircraft to safely landing today's spacecraft. Learn about the parachute packing process, touch a nylon parachute, learn about the evolution of ejection seats, and see how air flow dynamics lead to improvements in parachute designs.

22 S. Williams St., Dayton

aviationtrailinc.org/parachute-museum

- Visitor information for nearby attractions, dining and lodging: Destination Dayton

#### 4 Butler County Warbirds

Warbirds offers museum and interactive experiences to learn about aviation history. The museum focuses on the military aspect of aviation, featuring stories of veterans of interest through newspapers, uniforms, and more. Become a cadet for a day with enrollment in ground school and two hours of flight time in a WWII vintage plane.

2351 Wedekind Dr., Middletown

bcwarbirds.com

- Visitor information for nearby attractions, dining and lodging: <u>Travel Butler County</u>

#### **5** Champaign Aviation Museum

Located on historic Grimes Field, CAM features operational WWII aircraft and exhibits, with restoration happening in real time. You will experience what it was like to build and maintain a WWII aircraft and to enter flight training, and you'll hear the stories of Tuskegee Airmen and the Women's Airforce Service Pilots (WASP).

1652 N. Main St., Urbana

champaignaviationmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Champaign County Visitors Bureau</u>

#### 6 Cincinnati Museum Center

The Neil Armstrong Space Exploration Gallery celebrates the legacy of the Apollo 11 mission. Follow the story of Armstrong's life and the Apollo 11 space flight. The gallery invites intrepid explorers to consider why we should explore space and what it takes to get there. 1301 Western Ave., Cincinnati cincymuseum.org

<u>cincymuseum.org</u>

- Visitor information for nearby attractions, dining and lodging: <u>Visit Cincy</u>

#### 7 Cincinnati Observatory

Known as the "Birthplace of American Astronomy," the Cincinnati Observatory houses one of the oldest working telescopes in the world and was the first public observatory in the nation. The observatory was the founding site for the National Weather Service and Standard Time method keeping. There are two restored and functional historic telescopes on-site and a wide range of artifact collections.

3489 Observatory Pl., Cincinnati

cincinnatiobservatory.org

- Visitor information for nearby attractions, dining and lodging: <u>Visit Cincy</u>

#### 8 Cleveland Museum of Natural History

The new Sears Dynamic Earth Wing immerses you into the story of the Universe and Solar System. Meteorites and astronomical instruments share the physical history and an immersive media experience brings you into the history. The Wing culminates with a visit to the Nathan and Fannye Shafran Planetarium, taking a trip to the moon and beyond. 1 Wade Oval Dr., Cleveland

cmhn.org

- Visitor information for nearby attractions, dining and lodging: Destination Cleveland

#### 9 COSI - Center of Science & Industry

Interactive displays allow you to experience the challenges and excitement of space travel firsthand. The Kathy Sullivan Experience is a testament to her historic spacewalk and to her leadership and influence in advancing scientific exploration and education. The John Glenn Experience is an immersive journey into his life and achievements, with glimpses into training and a replica of the Freedom 7 capsule. 333 W. Broad St., Columbus

cosi.org

- Visitor information for nearby attractions, dining and lodging: Experience Columbus

#### **10 Crawford Auto-Aviation Museum**

For twenty years Cleveland hosted the National Air Races, where pilots tested their mettle. Aviation stars including Charles Lindbergh, Amelia Earhart, and Jimmy Doolittle all raced here. Several aircrafts from these races are housed at the museum, including a WWII P51 Mustang. Exhibits share the story of men and women that helped fulfill the country's need for speed.

10825 East Blvd., Cleveland

wrhs.org/crawford-auto-aviation-museum

- Visitor information for nearby attractions, dining and lodging: <u>Destination Cleveland</u>



#### 11 Delphos Canal Museum

Considered the "first American female aerospace worker," Ida Holdgreve, born near Delphos, applied for a job as a "plain sewer," but it was actually a job for a "plane sewer" working at the Wright Brothers Airplane Factory. She worked there from 1910-1920, sewing fabric for planes, and she supervised a sewing team during WWI. The museum shares the story of Ida's life with a featured exhibit.

241 N. Main St., Delphos

delphoscanalcommission.com

- Visitor information for nearby attractions, dining and lodging: <u>Visit Greater Lima</u>

#### 12 Ernie Hall Aviation Museum

Ernie Hall taught thousands of pilots and built his own plane at 19 years old. Hall was involved with aviation for over 50 years locally and nationally. The museum features aviation memorabilia, including a fabric of the *Red Baron* and personal letters between Ernie Hall and Orville Wright. 4031 N. River Rd. NE, Warren

erniehallaviationmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Trumbull County Tourism Bureau</u>

#### **13 Gentile Nature Park**

Built on the site of the former Gentile Air Force Station and Defense Electronic Supply Center, this park is designed with aviation at its heart. For 50 years the station was a vital component of the United State's Air Force's mission to provide technical support globally. Learn about Dominic Gentile's distinguished military career and experience the thrill of flight on the park's ziplines.

915 Peach Orchard Rd., Kettering playkettering.org/gentile-park-project

Visitor information for nearby attractions, dining and lodging:
<u>Destination Dayton</u>

#### 14 Great Lakes Science Center/NASA Glenn Visitor Center

The NASA Glenn Visitor Center is one of 11 NASA Visitor Centers in the country. The center highlights aerospace accomplishments from astronauts to scientists. The Explore, Living in Space and Discovery galleries feature the science and engineering principles behind major space and aerospace accomplishments, including a moon rock and John Glenn artifacts. 601 Erieside Ave., Cleveland

greatscience.com

- Visitor information for nearby attractions, dining and lodging: Destination Cleveland

#### 15 The Grimes Flying Lab Museum

Warren G. Grimes invented aviation lighting because of his dedication to making flight safer at night. See a Beech 18 that served the Air Force as the C-45, a valuable tool to test and evaluate aircraft exterior lighting systems under various flying conditions. The Grimes legacy lives on today through the Honeywell Corporation who continues to design and develop lighting systems for aviation.

1636 N. Main St., Urbana

wixsite.com/grimesflyinglab

- Visitor information for nearby attractions, dining and lodging: <u>Champaign County Visitors Bureau</u>

#### 16 Harmon Museum - Armstrong Gallery of Flight

The Armstrong Gallery of Flight celebrates the history of flight, aviators and astronauts who resided in Warren County. Neil Armstrong left his collection of art and awards received from all over the world to the Harmon Museum. Memorabilia from the Warren County Airport, the Red Stewart Airfield and Brownies Airfield are on displays throughout the Gallery. 105 S. Broadway St., Lebanon

wchsmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Visit Warren County Ohio</u>

#### 17 Hawthorn Hill

Step into Orville Wright's "Success Mansion" and experience how he lived. See his library of more than 500 books on subjects as diverse as airplanes, botany, travel, and classic English literature. Many distinguished guests visited the home while Wright lived here, including Thomas Edison, Henry Ford, and Charles Lindbergh.

901 Harman Ave., Oakwood

daytonhistory.org

- Visitor information for nearby attractions, dining and lodging: Destination Dayton

#### 18 Historic Aircraft Squadron

Hands-on experiences allow you to touch planes and climb into the cockpits to feel what it was like to fly a warbird. Vintage uniforms, weapons, and memorabilia are on display through the museum. Volunteer craftsmen are always on hand to discuss restoration and history of the planes on display.

3430 Old Columbus Rd. NW, Carroll

historicalaircraftsquadron.com

- Visitor information for nearby attractions, dining and lodging: <u>Visit Fairfield County</u>

#### 19 Huffman Prairie Flying Field/Wright Memorial

Visit the site where the Wright Brothers tested and perfected their early aircraft, leading to the development of the 1905 *Wright Flyer III*. At this field, they built their skills as pilots, started a flying school, and broke early aviation records. The Interpretive Center on site shares the story of the Wright Brothers and the Wright-Patterson Air Force Base and is home to the 17-foot Wright Memorial.

2380 Memorial Dr., Wright Patterson AFB <u>nps.gov/huffman-prairie-flying-field</u> - Visitor information for nearby attractions, dining and lodging:

Destination Dayton

#### 20 Imagination Station

Test your aviation skills at the controls of a Saab 340 jet stimulator, but first, learn about the science of flight and a variety of STEM careers available in aviation. Learn about the *Space Shuttle Discovery* mission, known as the "All Ohio Space Mission," and see artifacts that flew with the team.

1 Discovery Way, Toledo

imaginationstationtoledo.org

- Visitor information for nearby attractions, dining and lodging: <u>Destination Toledo</u>



#### 21 International Women's Air & Space Museum

This is the only museum in the world dedicated to sharing the stories of women in all areas of aviation and aerospace. Women have been crucial in crafting the history of aerospace advancement, including Katharine Wright promoting her brothers' invention, Annie Easley serving as the first Black female supervisor at NACA Lewis, and Judy Resnick becoming the second American woman in space.

1501 N. Marginal Rd., Suite 165, Cleveland

iwasm.org

- Visitor information for nearby attractions, dining and lodging: Destination Cleveland

#### 22 The John & Annie Glenn Museum

Visit the boyhood home of Astronaut John Glenn, the first American to orbit Earth, and learn about his legendary aviation and aerospace career. Enter the home in three periods of time - the Great Depression, during WWII, and the day John Glenn orbited Earth in 1962. Exhibits feature NASA history, a mock *Friendship* 7 space capsule, and suit and helmet worn by John Glenn.

72 W. Main St., New Concord

johnandannieglennmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Visit Zanesville - Muskingum County</u>

#### 23 Liberty Aviation Museum

The Erie-Ottawa Airport showcases vintage and WWII era aircrafts, including the Ford Tri-Motor *Tin Goose*, the world's first mass-produced commercial plane. The museum shares the story of Harold Brown, a Tuskegee Airman who retired to Port Clinton. Finish your visit at the Tin Goose Diner, a working class diner.

867 E. Fourth St., Salem

libertyaviationmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Shores & Islands</u>

#### 24 MAPS Air Museum

This former Ohio Air Guard hanger serves as the center of aviation history for Northeast Ohio. More than 60 aircrafts and 100 artifacts are on display from all eras of American history. See the first mono-winged glider aircraft, which was designed by local farmer William H. Martin. 2260 International Pkwy., North Canton

mapsairmuseum.org

- Visitor information for nearby attractions, dining and lodging: Visit Canton

#### 25 Mound Cold War Discovery Center

The Mound Cold War Discovery Center tells the story of Mound Laboratory, the first Atomic Energy Commission Site built after WWII to continue work done in the Dayton Project, a subsidiary of the Manhattan Project. Mound was an integrated research, development, and production facility that supported the U.S. nuclear weapons, energy, and space programs. Mound-built components went with NASA to the moon, Mars, Jupiter, Saturn, Uranus, and Neptune.

1075 Mound Rd., Miamisburg

daytonhistory.org/mound-cold-war-discovery-center

- Visitor information for nearby attractions, dining and lodging: Destination Dayton

#### 26 National Aviation Hall of Fame

NAHF honors Ohio's legacy as a hub for innovation and excellence in aviation by showcasing the achievements of legendary aviators and aerospace pioneers. The Heritage Hall Education Center provides interactive displays, a theater, and an innovation lab, where visitors can take part in a Hubble Rescue Mission and land a plane on an aircraft carrier.

1100 Spaatz St., Dayton

nationalaviation.org

- Visitor information for nearby attractions, dining and lodging: <u>Destination Dayton</u>

#### 27 National Museum of the U.S. Air Force

The museum is a world-renowned center for air and space power technology and culture preservation. See the only B-2 bomber in the world and 10 Presidential aircrafts, including SAM 26000, which returned President Kennedy's body after his assassination, which visitors can walk through. The museum features 350 aerospace vehicles and missiles. 1100 Spaatz St., Dayton

nationalmuseum.af.mil

- Visitor information for nearby attractions, dining and lodging: <u>Destination Dayton</u>

#### 28 National Packard Museum

View Jesse G. Vincent's V-1650-7 Merlin Engine, known as the Victory Engine. Vincent was a self-taught engineer and automotive genius and was awarded 162 patents during his career at the Packard Motor Company. He designed the first V-12 automobile engine in 1915 and is best known for creating the Liberty aircraft engine and Victory engine, both crucial to World War success and military aviation. 1899 Mahoning Ave. NW, Warren

packardmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Trumbull County Tourism Bureau</u>

#### 29 Noble County Museum

The Noble County Historical Society Museum has artifacts from the crash sites of the U.S.S. Shenandoh, a U.S. Navy rigid airship that crashed in Noble County on September 3, 1925, when it encountered a severe storm. Visitors can visit the three crash site locations and a memorial site. 419 West St., Caldwell

visitnoblecountyohio.com

- Visitor information for nearby attractions, dining and lodging: <u>Visit Noble County</u>

#### 30 Tri-State Warbird Museum

The mission of the Tri-State Warbird Museum is to restore WWII era planes to flying conditions and displaying fully restored aircrafts. The museum has 11 significant aircrafts on display, including P-40M Kittyhawk III. Be sure to catch the current restoration, a FG-1D Corsair, made famous in the South Pacific by the "Black Sheep" Squadron. 4021 Borman Dr., Batavia

tri-statewarbirdmuseum.org

- Visitor information for nearby attractions, dining and lodging: <u>Discover Clermont</u>



#### 31 WACO Air Museum

Two hangers featuring vintage aircrafts and historical aircrafts and a grass strip runway bring you back to 1930 during your visit. Experience the Golden Age of Aviation by taking a flight in an open cockpit WACO biplane. WACO was the first company to use assembly line production of civilian airplanes, nine of which are on display. 1865 S. County Rd. 25A, Troy

wacoairmuseum.org

- Visitor information for nearby attractions, dining and lodging: Miami County Convention & Visitors Bureau

#### 32 Wallace Family Learning and Innovation Center

Fly one of five missions on an interactive computer game featuring the plane that Shelby County natives Edward and Milton Korn built in 1912. Edward and Milton were part of the first water landing and air mail delivery, and they helped train pilots for WWII. The gallery "Onward and Upward" features their stories with interactive aspects highlighting these early aviation pioneers.

115 E. North St., Sidney

shelbycountyhistory.org/learningcenter

- Visitor information for nearby attractions, dining and lodging: Sidney Ohio Visitors Bureau

#### 33 Wingfoot Lake State Park

In 1916, Goodyear purchased this land to manufacture blimps, and the lake was named in honor of Goodyear's corporate logo. The U.S. Navy contracted Goodyear to build nine blimps during WWI for reconnaissance missions. The park's nature center features exhibits on the blimp, and you may spot the blimp across the lake outside of the hanger. 993 Goodyear Park Blvd., Mogadore

ohiodnr.gov/wingfoot

- Visitor information for nearby attractions, dining and lodging: Central Portage County Convention & Visitors Bureau

#### 34 Woodland Cemetery and Arboretum

This cemetery is the final resting place for many aviation notables, including the Wright Brothers, Col. Edward A. Deeds, and Torrence Huffman. The cemetery also serves as an arboretum, with more than 3,000 trees and plants across its acreage. The chapel on site features a mosaic floor designed by Tiffany of New York.

118 Woodland Ave., Dayton

woodlandcemetery.org

- Visitor information for nearby attractions, dining and lodging: **Destination Dayton** 

#### 35 The Works: Ohio Center for History, Art & Technology

Geraldine "Jerrie" Mock, a Newark native, became the first woman to fly solo around the world in 1964. Sit in the cockpit of a model of the Spirit of Columbus and follow Mock's route across the globe. Hear the story of Mock's flight, including her time as the only female studying aeronautical engineering at The Ohio State University and memorabilia from her flight. 55 S. 1<sup>st</sup> St., Newark

atttheworks.org

- Visitor information for nearby attractions, dining and lodging: Explore Licking County

#### 36 Wright "B" Flyer

The Wright Brothers produced more than 75 Wright "B" Flyers, the first aircraft type to go into mass production. These planes taught civilians and the military to fly. The museum is a working hanger with two look-a-like Model B aircrafts that often take flight, and it is dedicated to sharing the story of the planes and their production. 10550 Springboro Pike, Miamisburg

wright-b-flyer.org

- Visitor information for nearby attractions, dining and lodging: **Destination Dayton** 

#### 37 Wright Brothers National Museum at Carillon Historical Park

See the original 1905 Wright Flyer III, the world's first practical airplane, created by Wilbur and Orville Wright, which taught them how to fly. The story of the Wright Brothers comes alive throughout this museum. Other artifacts include bicycles built by the Wright Brothers, the camera that captured photos of the first plane in flight, Wilbur's traveling bag, Orville's toolbox, and more.

1000 Carillon Blvd., Dayton

daytonhistory.org

- Visitor information for nearby attractions, dining and lodging: **Destination Dayton** 

#### 38 Wright State University Libraries, Special Collections and Archives

View exhibit cases featuring original materials from the Wright Brothers Collection. Be sure to get an up-close look at an original Wright 1905 taper tip propeller, and a Wright 1912 bent end propeller made for a Wright Model C. Wilbur Wright's Michelin Trophy, the first ever awarded, is on display outside of the archives. A full-scale replica of the Wright's 1903 Flyer hangs in the library atrium.

Wright State University - 3640 Colonel Glenn Hwy., Dayton libraries.wright.edu/special-collections-and-archives - Visitor information for nearby attractions, dining and lodging:

**Destination Dayton** 

#### 39 Wright-Dunbar Interpretive Center and Wright Cycle Shop

Discover the story of the early days of flight, when Wilbur and Orville Wright developed an experimental flying machine from their bicycle shop. Learn about their early lives and how their idea of a flying machine came to be, from a simple idea to fly gliders to the airplane. The museum shares the DNA of modern aviation through Wright Brothers designs. 16 S. Williams St., Dayton

nps.gov/wdic

- Visitor information for nearby attractions, dining and lodging: **Destination Dayton** 

#### 40 Wyandot County Museum

Astronaut Neil Armstrong spent his years as a young boy in Upper Sandusky. The museum shares the birth of his lifelong love for adventure, beginning in his time as a Boy Scout. The primary exhibit is a display case with artifacts relating to places he lived and visited during his time in Upper Sandusky, including yearbooks and photographs.

130 S. 7<sup>th</sup> St., Upper Sandusky

wyandothistory.org

- Visitor information for nearby attractions, dining and lodging: Wyandot County Visitors Bureau



#### 41 National Veterans Memorial & Museum

Veterans and aerospace pioneers Eddie Rickenbacker, Neil Armstrong, and John Glenn are highlighted along the museum's historical timeline. Artifacts relating to John Glenn's military service and NASA career feature in a special exhibit case. The Tuskegee Airmen and their legacy of a more racially inclusive Air Force are on display sharing their impact. 300 W. Broad St., Columbus nationalvmm.org

- Visitor information for nearby attractions, dining and lodging: <u>Experience Columbus</u>