



Aviation Trail Visitor Center & Wright-Dunbar Interpretive Center

Corner of W. Third & S, Williams Sts.
16 S. Williams St.
Dayton, OH 45402
937-225-7705



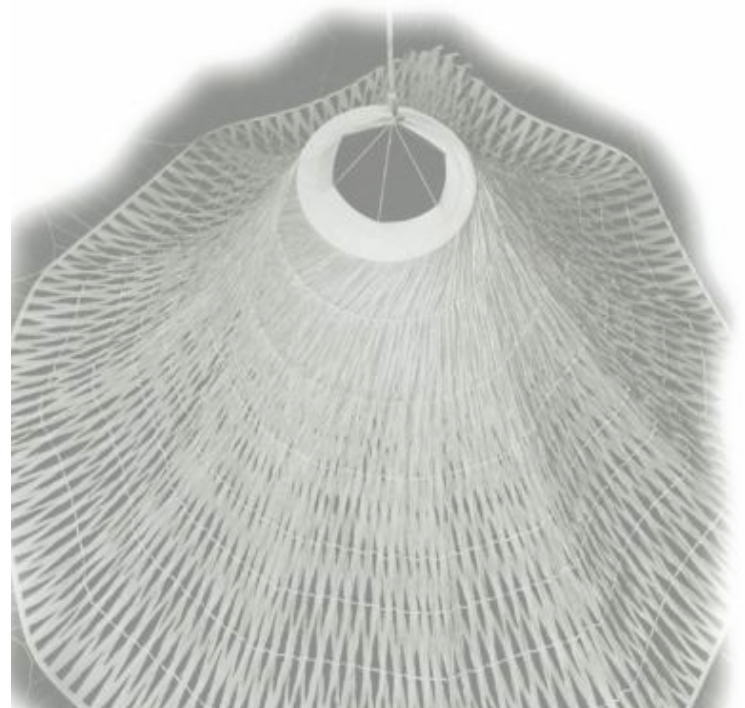
The David Gold Parachute Collection

The Aviation Trail Parachute Museum was established to honor David Gold, whose parachute collection is considered one of the most comprehensive private parachute collections in the world.

David Gold became interested in parachutes at age 13 after watching the death-defying exploits of exhibition parachute jumpers at North Beach Airport in Queens, New York. Gold visited parachute factories, becoming acquainted with parachute pioneers Floyd Smith and Colonel Edward Hoffman from the McCook Field Parachute Branch.

Gold became a parachute rigger, and began his own business. He sold and serviced parachutes, and designed, developed, and fabricated specialized parachute equipment. In the 1950s and 1960s, Gold developed and tested parachutes for personnel and missile recovery systems, steerable parachutes, aircraft deceleration parachutes, and ultimately the parachute recovery systems for the Apollo spacecraft.

David Gold passed away on February 4, 1985, at the age of 67. In 1986, his estate donated his collection to Aviation Trail, Inc. The books, papers, reports, photographs, and films were sent to nearby Wright State University in Fairborn, Ohio. The rest of the collection was retained by Aviation Trail, Inc. at the Aviation Trail Visitor Center and is available for research. The materials at Wright State University are available for research in the Special Collections and Archives section of the University's Paul Laurence Dunbar Library.





Flyer Leaps To Safety in Parachute as Plane Falls

Since McCook Field was the flight test center for the Air Service, it is no surprise that a McCook Field test pilot was the first to save his life from a disabled airplane using the new McCook free fall parachute. On October 28, 1922, Lt. Harold R. Harris bailed out of his disintegrating airplane during a test flight and landed safely in the North Dayton neighborhood, demonstrating the lifesaving capability of the new parachute.



The Caterpillar Club

A new club was born after Lieutenant Harold Harris saved his life with the new McCook Field bailout parachute: its members to be aviators who had saved their lives jumping from a disabled plane with a free fall para-

chute. The Caterpillar Club, named for the insects that spun the silk fiber used in parachutes, was administered by the Irving Air Chute Company. By the 1950s over 80,000 members had unintentionally joined, including Charles Lindbergh, and General Jimmy Doolittle. President George H.W. Bush and Astronaut Col. John Glenn are members, and Astronaut Gen. Neil Armstrong (USAF Ret.) was a member.

Wright Field

When McCook Field in Dayton, Ohio, closed in 1927, all its work on parachutes moved to Wright Field, now Area B of Wright-Patterson Air Force Base. German scientists recruited during and after World War II, through Project Paper Clip, brought an influx of new parachute technology to Wright Field. For decades Wright Field was a leading center of parachute technology research and development where pioneering work was conducted on many different military parachute applications.



Parachute Jump Records

Visitors may enjoy a short video about Col. Joseph Kittinger (USAF Ret.) and his world record jump. Also on view is a summary of the latest world record breaking jumps by Felix Baumgartner and Alan Eustace.

1960 Kittinger

In 1960 United States Air Force Capt. Joseph Kittinger set historical

numbers for highest balloon ascent, highest parachute jump (102,800 feet), longest drogue-fall (four minutes), and fastest speed by a human through the atmosphere (614 mph). Kittinger was decorated with a second Distinguished Flying Cross, and was awarded the Harmon Trophy by President Dwight D. Eisenhower.

2012 Baumgartner

In 2012 Austrian Felix Baumgartner successfully broke the record for the world's highest parachute jump. He dropped from an unofficial altitude of 128,100 feet — about 1.5 miles higher than expected. In the process, he also became the first skydiver to exceed the speed of sound—833.9 mph while in freefall (Mach 1.24 — the first supersonic skydive). He and the Stratos Red Bull team broke three more records: Highest manned balloon flight, 128,100 feet; greatest freefall distance, 119,846 feet; fastest mechanically unaided speed, 833.9 mph.

2014 Eustace

In 2014 Senior Vice President Alan Eustace from Google, broke the world altitude record for a parachute jump set in 2012 by Austrian Felix Baumgartner. Eustace was carried by a large helium balloon from New Mexico to over 25 miles above the earth. In a special space suit, he reached speeds of more than 822 mph, exceeding the speed of sound, setting off a small sonic boom. Eustace broke world records for vertical speed and total freefall distance of 123,414 feet - lasting four minutes and 27 seconds.

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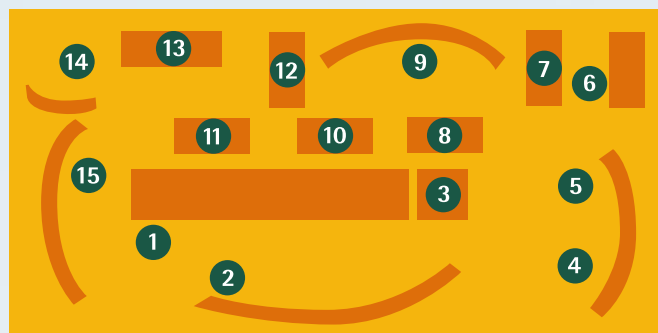
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Aviation Trail Parachute Museum

The Aviation Trail Parachute Museum is located on the second floor of the Aviation Trail Visitor Center. The museum tells the story of the development of the free fall parachute from its invention at Dayton's McCook Field after World War I, up to the vital role it plays in safely landing today's spacecraft. The time line around the soffit of the exhibit space highlights significant events in the history of the parachute. The museum also includes interactive exhibits, artifacts, historic photographs and text.



Entrance Second Floor Photo Op Display Parachute Museum

Take a Parachute Collection Tour

Look up to the ceiling and see the parachute history timelines.

Then see below:

1. Packing Process
 - Drogues, deployment, links, static line, ripcords, harness, openers
 - Harold Johnson's parachute rig, how to pack a parachute, tools
2. Touch a Canopy, History of Parachutes
3. Inflate a Silk Chute, How it Works, video
4. Freefall, Work at McCook Field, Floyd Smith
5. McCook Field History, Bailout, Seat Pack, Round Parachute Parts
6. Harold Harris, first to save life by parachute, freefall video, Caterpillar Club, Reserve Belly Pack
7. Touch a Nylon Parachute
8. Wright Field History, video
9. Ejection Seat, Tests, video
10. Parachute Research Et Development, video
11. Modern Parachutes, Uses, Misty Blues, video
12. Modern Parachute, video
13. Parachute Testing, wind effects
14. World Record Jumps by Kittinger, Baumgartner and Eustace, video
15. Mars Landing, Cargo Container, video

Wright-Dunbar Interpretive Center

The Wright-Dunbar Interpretive Center is located in the Hoover Block part of this complex. Wilbur and Orville Wright had a printing business in a second floor corner suite of the Hoover Block from 1890 to 1895.

One of their associates in the printing business was Paul Laurence Dunbar, a classmate of the Wrights and later an internationally known black poet. The name of the Interpretive center reflects this special relationship. The exhibits tell about the lives of the three men and about the West Side neighborhood in which the building is located. The Wright-Dunbar Interpretive Center is a unit of the Dayton Aviation Heritage National Historical Park.

www.nps.gov/daav/



Aviation Trail, Inc.
P.O. Box 633
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www.aviationtrailinc.org



As long as men fly... wherever they journey through space... their flights began in Dayton, Ohio, The Birthplace of Aviation.

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Parachute Research and Development

Much of the early research and development (R&D) of parachutes was conducted directly by the military. In 1951 the Department of Defense even created the Joint Parachute Test Facility at El Centro, Calif., to consolidate military parachute R&D testing. Eventually NASA and many commercial companies began doing more of the R&D work. Companies that had concentrated on personnel parachutes branched out to other advanced, high-performance military and space applications. Continued aerospace advances required parachute technology that could operate in higher, faster conditions and even in the atmosphere of other planets. As long as new challenges continue to evolve, parachute R&D will continue into the future.



Modern Uses

Parachutes continue to be used for many different applications. Parachutes are still used for emergency in-flight escape from aircraft, and some airplanes even have parachutes that can lower the whole plane to the ground. Other traditional uses continue such as airdrop of cargo and personnel, aircraft deceleration, recovery of unmanned aircraft and weapons stabilization. Parachutes also play a key role in space exploration including slowing the descent of space probes through alien atmospheres and recovering space vehicles. Today parachutes also have many other uses from skydiving to model rocketry; they slow drag racers to a stop, provide a way to deliver cargo from aircraft, and even improve endurance training for athletes.



"What's the Big Deal About a Free Fall Parachute?"

Parachutes had been around for years before McCook Field was even built; so what is so important about the development of the McCook, manually activated free fall parachute? Previous parachutes used for exhibition jumps or even escape from military observation balloons were all activated by a static line: a rope or cord that was attached to the balloon or airplane that pulled the parachute out of the pack as the jumper fell away. Most people felt that this was the only way to deploy a parachute. Engineers at McCook realized that a static-line-operated parachute was not suitable, nor reliable enough to escape from a damaged airplane in flight. The static line or the parachute itself could be damaged by entangling with the airplane while the pilot tried to jump out, especially if the airplane was out of control. A manually activated free fall parachute allowed the pilot to climb out and jump clear of the airplane before pulling a ripcord to deploy the parachute. This proved to be much more reliable, was the basis for emergency bail out parachutes still used to this day, and it was developed first at McCook Field here in Dayton!



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