



Aviation Trail, Inc.

Experience the Birthplace of Aviation!

A non-profit corporation in partnership with the National Park Service to promote Aviation Heritage in the Dayton region

Visit the historical sites that tell of man's conquest of the air.

News and Updates from "The Trail"

"The Flight Log" -

AVIATION TRAIL MAIL

PRINT VERSION: this file is a print version of the e-mail newsletter that is sent out on a free subscription basis. To get on the e-mail subscription list go to the Aviation Trail website at www.aviationtrailinc.org and subscribe by using the "Subscribe Now" button on the footer of each page. This version is more suited for printing hard copies than the e-mail version and is available on the Aviation Trail website "Newsletters and Brochures" page: <http://www.aviationtrailinc.org/newsletters>.



Above: Aviation Trail Visitor Center • Wright-Dunbar Interpretive Center • Dayton Aviation Heritage National Historical Park
Corner of W. Third & S. Williams Sts., • 16 S. Williams St., Dayton, OH 45402 • (937) 225-7705

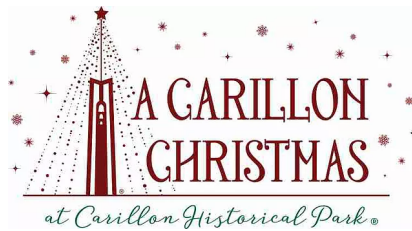
Print Version

November 2018 ISSUE

11/29/2018

This "Flight Log" highlights some of the stories and events featured on the Aviation Trail website: AviationTrailInc.org

A Carillon Christmas Kicks Off Nov. 28, 2018



DAYTON, Ohio—On Wednesday, Nov. 28, 2018, at 5:00 p.m., the third annual A Carillon Christmas returns to Carillon Historical Park—home of the Wright Brothers National Museum and Carillon Brewing Co., the nation's only fully operational production brewery in a museum.

Towering 200 feet, featuring 20,000 bulbs, the breathtaking Carillon Tree of Light—Ohio's largest tree of light—is not only the centerpiece of A Carillon Christmas, but also an undeniable symbol of Christmas in the Miami Valley.

Featuring Santa's Toy Shop, the Victorian Carolers, Midnight Express Train Rides, Candy Cane Slopes, Carillon Card Company, Letters to Santa, and countless Yuletide attractions, A Carillon Christmas transforms the park into a winter wonderland of holiday cheer. Carillon Historical Park at night, decked out with over 15 miles of Christmas lights, is truly a sight to see.

Regular Park admission fees apply to experience A Carillon Christmas. All proceeds support Dayton History in its mission to inspire generations by connecting them with the unique people, places, and events that changed Dayton and the world.

The inaugural 2018 Carillon Tree of Light lighting takes place Wednesday, Nov. 28, 2018, at 6:00 p.m. The tree lighting is free to the public.

About Carillon Historical Park
Carillon Historical Park is part of Dayton History, a private non-profit organization established to preserve, share, and celebrate our region's history. The Park's 65-acre campus is home to over 30 historic structures and cares for over three million artifacts. In addition to Carillon Historical Park, the following sites rest under Dayton History's care: Carillon Brewing Co., Hawthorn Hill, the Paul Laurence Dunbar House Historic Site, Patterson Homestead, the Old Court House, Memorial Hall, and the Archive Center.

<https://www.daytonhistory.org/events/special-events/a-carillon-christmas/>

Dayton's National Park Winter Hours

It's that time of year again. The days are growing shorter and colder, and Dayton Aviation Heritage National Historical Park will be closed on Mondays and Tuesdays through February beginning on November 5, 2018.



WINTER 2018-19 SEASONAL HOURS:

Dayton Aviation Heritage National Historical Park
16 South Williams Street, Dayton, Ohio 45402, www.nps.gov/daav
(937-225-7705)
Beginning November 5th, 2018 through February TBD, 2019

- **CLOSED on Mondays and Tuesdays**
- Open 9:00 am to 5:00 pm, Wednesday through Sunday

Closed on the following holidays: Thanksgiving Day, Christmas Day, and New Year's Day.

During inclement weather, Dayton Aviation Heritage National Historical Park follows the opening/closure decisions of Wright-Patterson Air Force Base. For up to date operating status information during inclement weather, visit the WPAFB Operating Status page. This information is updated daily. You can also call (937) 225-7705 for more information.

Aviation Trail Event December Event

WHEN: Monday, Dec. 17, 2018, at 6:30 PM

WHERE: Flyboys Deli,

2729 Fairfield Commons Blvd., Beavercreek, Ohio

--Look for the airplane on the roof!



**A unique, casual evening
by Aviation Trail, Inc.**

**to mark the
115th anniversary of powered flight
by Daytonians
Wilbur and Orville Wright**

PROGRAM:

- Entertainment by the clarinetists, the Licorice Stix, part of the University of Dayton's New Horizons Music Program and to commemorate the end of World War I
- The premier showing of a video on the Lafayette Escadrille by acclaimed aviation photographer/author Dan Patterson

Anniversary: (noun) Webster

The annual recurrence of a date marking a notable event

*it all started in the very late
1800's in a small bike shop in a
quiet Dayton neighborhood...*

*a couple of brothers, some wood,
fabric, wire, nuts and bolts, plus
imagination, dedication, and a
lot of determination, put it all
together and then on a December
17th windy afternoon, far from
home, the celebration began!*

*Let us celebrate again for the
115th time on December 17th!*

**See the Aviation Trail website EVENT INVITATION PAGE
for more details on the menu and program.**

<http://www.aviationtrailinc.org/dec-17-2018-anniversary-event>

**Reservations can be ordered online via PayPal from the
website's Membership/Donation/Reservations page.**

MIT engineers fly first-ever plane with no moving parts

Nov. 21, 2018 - from MIT news release

**The silent, lightweight aircraft doesn't depend
on fossil fuels or batteries.**

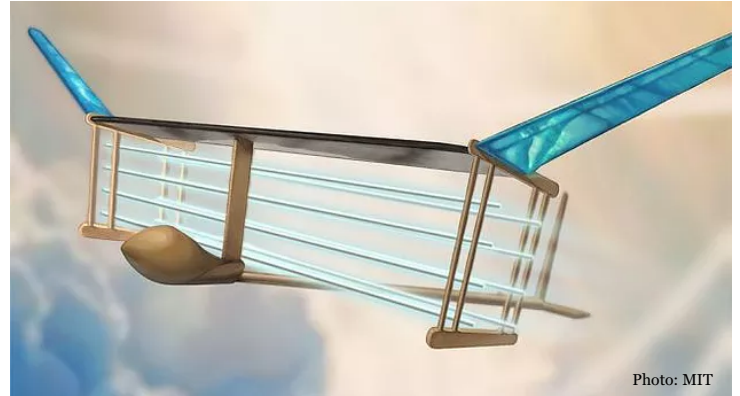


Photo: MIT

Since the first airplane took flight over 100 years ago, virtually every aircraft in the sky has flown with the help of moving parts such as propellers, turbine blades, and fans, which are powered by the combustion of fossil fuels or by battery packs that produce a persistent, whining buzz.

Now MIT engineers have built and flown the first-ever plane with no moving parts. Instead of propellers or turbines, the light aircraft is powered by an "ionic wind" — a silent but mighty flow of ions that is produced aboard the plane, and that generates enough thrust to propel the plane over a sustained, steady flight. Unlike turbine-powered planes, the aircraft does not depend on fossil fuels to fly. And unlike propeller-driven drones, the new design is completely silent.

"This is the first-ever sustained flight of a plane with no moving parts in the propulsion system," says Steven Barrett, associate professor of aeronautics and astronautics at MIT. "This has potentially opened new and unexplored possibilities for aircraft which are quieter, mechanically simpler, and do not emit combustion emissions."

He expects that in the near-term, such ion wind propulsion systems could be used to fly less noisy drones. Further out, he envisions ion propulsion paired with more conventional combustion systems to create more fuel-efficient, hybrid passenger planes and other large aircraft.

Barrett and his team at MIT have published their results today in the journal Nature.

Barrett says the inspiration for the team's ion plane comes partly from the movie and television series, "Star Trek," which he watched avidly as a kid. He was particularly drawn to the futuristic shuttlecrafts that effortlessly skimmed through the air, with seemingly no moving parts and hardly any noise or exhaust.

"This made me think, in the long-term future, planes shouldn't have propellers and turbines," Barrett says. "They should be more like the shuttles in 'Star Trek,' that have just a blue glow and silently glide."

About nine years ago, Barrett started looking for ways to design a propulsion system for planes with no moving parts. He eventually came upon "ionic wind," also known as electroaerodynamic thrust — a physical principle that was first identified in the 1920s and describes a wind, or thrust, that can be produced when a current is passed between a thin and a thick electrode. If enough voltage is applied, the air in between the electrodes can produce enough thrust to propel a small aircraft.

For years, electroaerodynamic thrust has mostly been a hobbyist's project, and designs have for the most part been limited to small, desktop "lifters" tethered to large voltage supplies that create just enough wind for a small craft to hover briefly in the air. It was largely assumed that it would be impossible to produce enough ionic wind to propel a larger aircraft over a sustained flight.

"It was a sleepless night in a hotel when I was jet-lagged, and I was thinking about this and started searching for ways it could be done," he recalls. "I did some back-of-the-envelope calculations and found that, yes, it might become a viable propulsion system," Barrett says. "And it turned out it needed many years of work to get from that to a first test flight."

**For more on the story, and videos of the flights see the MIT site at
<http://news.mit.edu/2018/first-ionic-wind-plane-no-moving-parts-1121>**





Aviation Trail, Inc.

Experience the Birthplace of Aviation!

A non-profit corporation in partnership with the National Park Service to promote Aviation Heritage in the Dayton region

Visit the historical sites that tell of man's conquest of the air.

www.aviationtrailinc.org

Yes! I want to support Aviation Trail, Inc.

Mr., Mrs., Miss, Ms. _____

Address _____

City, State, Zip _____

Phone (H) _____ (W) _____ (C) _____

E-mail Address (to receive online newsletter) _____

(Name to be used for recognition if different than above) _____

Membership Levels

I / We wish to remain anonymous.

_____ \$25.00 Senior (age 60+)

_____ \$75 Contributing

_____ \$1000 Patron

_____ \$30 Individual

_____ \$150 Supporting

_____ Other- I am a life member and would like to make an additional contribution

_____ \$40 Family

_____ \$1500 Individual Life Member*

(*May be paid in three annual payments of \$500 per year, mail in only)

_____ Donation - I would like to support Aviation Trail with a **DONATION** of \$ _____ to Aviation Trail

Please apply my donation to:

Membership Fund

Preservation Fund*

Wilbear Fund**

* Donations will be designated to promote and preserve historical aviation sites in the Dayton Region.

** Donations will be designated to promote and preserve the "Wilbear Wright" teddy bear program that promotes the Aviation Trail and its partner sites.

Check enclosed. Make payable to: Aviation Trail, Inc.

Mail to Aviation Trail, Inc. / PO Box 633 / Wright Brothers Station / Dayton, OH 45409

Members and donors receive an online subscription to the Aviation Trail newsletter, *Flight Log*, and advance invitations to Aviation Trail events and programs.

Online credit card payments may be made from our website at www.aviationtrailinc.org.

Select the "Memberships -Donations-Reservations button from the top menu. Secure payments are made through PayPal.

Donations to Aviation Trail, Inc., a 501(c)3 organization, in partnership with the National Park Service to promote Aviation Heritage in the Dayton region, are fully tax deductible.

Aviation Trail, Inc. / PO Box 633 // Wright Brothers Branch / Dayton, OH 45409 / www.aviationtrailinc.org