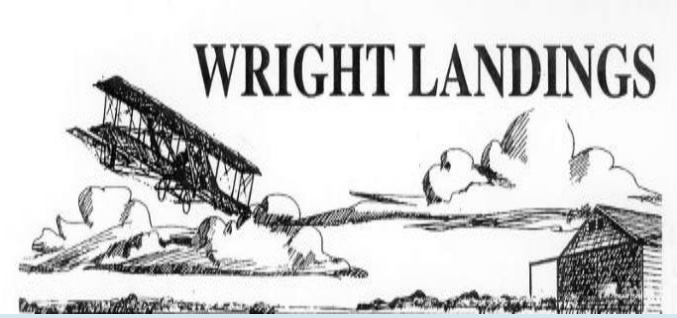
Spring Newsletter

March 2025



SPRING HAS ARRIVED

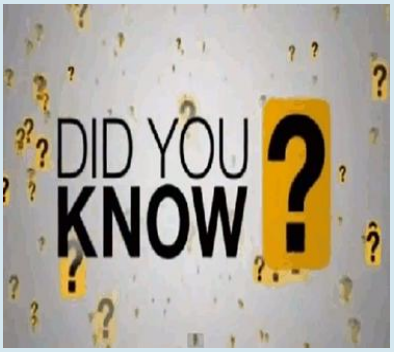
Get Outside and visit the Wright B Flyer Museum.

Wright Landings is published for the information of members and volunteers of the Wright B Flyer, Inc., a 501(c)(3) non-profit organization. Dayton-Wright Brothers Airport; 10550 Springboro Pike Miamisburg, Ohio 45342 Phone: 937-885-2327

Hours of Operation

Tuesday,
Thursday, Saturday
9:00 am – 12:30pm

Retired? Need something to do? See the last page!



One letter that started a life-long friendship.

When the Wright Brothers were looking for a place to test their gliders, they sent a letter to the Kitty Hawk Life-Saving Station, and it ended up in the hands of the postmaster William Tate.

Tate responded to the brothers telling them this would be a fine area for them to conduct their tests. About a month later Wilbur showed up on his doorstep ready to set up camp to test their first glider.

William Tate provided Wilbur with his first place to stay on the Outer Banks, gave him food, and helped assemble the Wright Brother's aircraft.

Without the hospitality of William Tate, the Wright Brothers may never have succeeded at flying their aircraft here. William Tate had a long career as a postmaster, lifesaver, lighthouse keeper, and friend of the Wright Brothers.

Sometimes, you never know how one letter in the hands of the right person can turn into something great!

“LAST YEAR WAS FULL OF GREAT PHOTOS”

Dayton Air Show

Oshkosh

AOPA Magazine Article

Americana Parade

Major White Bird Activities Completed for 2024

- White Bird runway hops and pattern flights to assess cylinder head temperatures, electric trim function and the effects of aileron drooping.
- Civil Air Patrol Renaming Ceremony in Hangar.
- Wright B Flyer Museum Annual Meeting in Hangar.
- America 250 Ohio Trails and Tales (Air and Space Trail) Kickoff Event.
- AOPA White Bird Photo Shoot with Flight and Runway Hops.
- Dayton Airshow for White Bird Static Display.
- Centerville Americana Parade with Half-Scale and Model T participation.
- **EAA AirVenture at Oshkosh for Static Display.**
- NAHA Photo Day with White Bird Runway Hops.
- Kettering Holiday at Homes Parade White Bird Flyover.
- Concours D'Elegance White Bird Flyover and the Model T Static Display at the Carillon Historical Park.
- Half-Scale to National Parks for Air Force Marathon.
- Dayton Christian High School with White Bird Flyover.
- White Bird Flyover and Half-Scale in the Heritage of Flight Festival Parade.
- White Bird Flyover at 97th Wright Field Anniversary Celebration.

Want to learn how receive this Wilbear Wright bear?

While touring the Dayton, Ohio Aviation Trail, receive a stamp at the one required site; The Wright-Dunbar Interpretive Center, plus a minimum of seven of the remaining sites to qualify for a free "Wilbear Wright" aviation teddy bear. Pick up a folder at any Dayton Ohio Aviation Trail site.

BE SURE TO VISIT THE GIFT SHOP WHILE AT THE MUSEUM. TEE SHIRTS, POLO SHIRTS, SWEATSHIRTS, BALL CAPS, BOOKS, AND LOTS OF GREAT WRIGHT BROTHERS MEMORABILIA.

Don't forget:

Displaying the "Leader in Flight" license on your car proclaims your pride in Dayton's Heritage as the true birthplace of flight! And it means $15 more to the Wright "B" Museum and a tax deduction for you!

We are an all-volunteer Museum and welcome all donations to help us continue to celebrate the accomplishments of the Wright Brothers.

Just use the QR Code on the right.

Root Cause Investigation of the White Bird Chain Drive Problem- Static Load Test

By Tony Bonser

As part of the root cause investigation of the drive system problem, our investigation team needed to find a way to apply chain loads to the aircraft structure and measure the impact. This sounds simple enough but proved to be an adventure. First, we needed to find a way to safely load the chain to the max chain load at takeoff power. Second, we needed to determine what needed to be measured. Third we needed to figure out how to perform the measurements.

The first challenge was solved by recognizing that only one side of the chain is in tension. This was simulated by using the existing prop sprocket and a section of chain fixed at the drive sprocket end. Safely applying torque to prop sprocket was accomplished using a lever attached to prop sprocket. By using the mechanical advantage of the lever, we were able to generate over 1100 lbs. chain tension with only 110 Lbs. of force.

The second challenge was to determine where to look for suspected deflections in the structure. Being new to the team, this became an interesting exercise for me. We predicted areas where bending might occur, based on predicted load paths of a complicated structure.

The final challenge was determining how to measure load and possible structural deflection. This included a range of techniques including lasers, digital load cell, digital caliper, yard stick, and Dacron string.

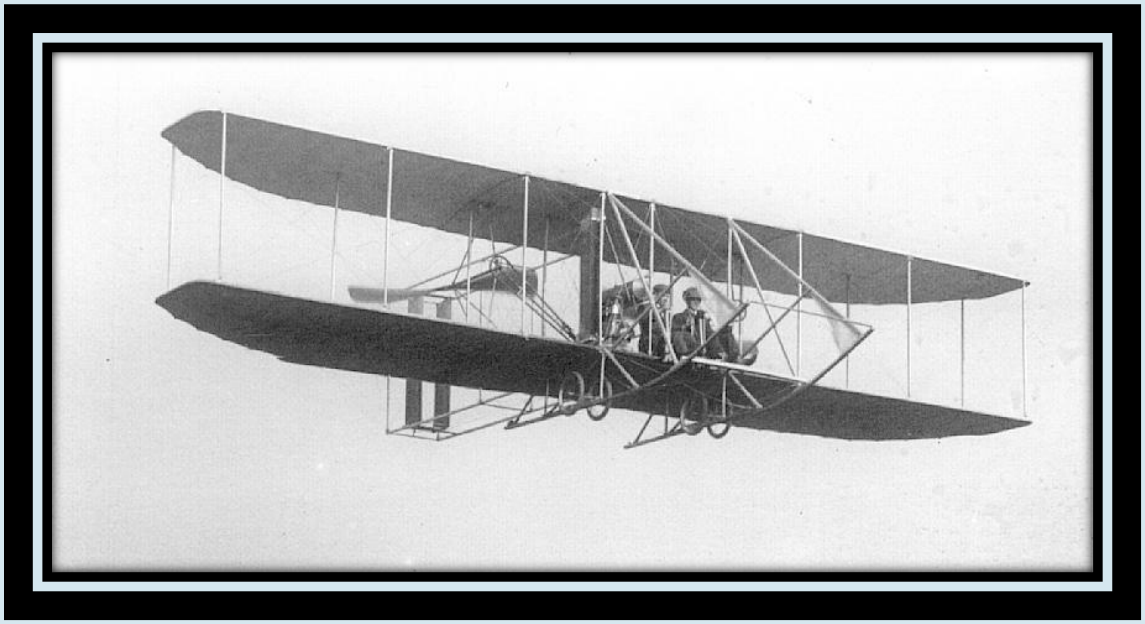
Once the setup was designed, we completed a safety review of the setup and test procedure. This proved to be extremely helpful in improving our setup and process. After the final review we were ready to start testing on February 8. The test was limited to the right drive train initially but was expanded to the left drive train.

We successfully found deflections of the structure and isolated them to the chain guard. Further we isolated the part of the chain guard which was responsible for the majority of the deflection. More importantly, we tested a design improvement which proved to minimize chain guard deflection.

I quickly found that our team of pilots, engineers, maintenance leaders and staff had very diverse skills and knowledge. Even more impressive was this team's ability to harness these skills and knowledge so effectively.

The test result helped our investigation team understand how to improve our design and processes, which puts us on a path to return a reliable White Bird to flight later this summer. It speaks loudly to the effort of our team to ensure our aircraft is an outstanding look-a-like of the Wright "B" Flyer. I think the Wright Brothers would be proud of our investigative analysis and engineering discipline.

The Original Wright “B” Flyer



General Characteristics

- **Crew:** One pilot
- **Capacity:** one passenger
- **Length:** 26 ft 0 in (7.93 m)
- **Wingspan:** 39 ft 0 in (11.89 m)
- **Height:** 8 ft 9 in (2.67 m)
- **Wing area:** 480 sq ft (44.6 m^2)
- **Empty weight:** 800 lb. (363 kg)
- **Gross weight:** 1,250 lb. (567 kg)
- **Powerplant:** 1 × Wright Vertical 4 , 35 hp (26 kW)

Performance

- **Maximum speed:** 45 mph (72 km/h, 39 kn)
- **Cruise speed:** 40 mph (64 km/h, 35 kn)
- **Range:** 110 mi (177 km, 96 nmi)

Want to be part of Aviation History, you can be!

We need interested volunteers!

*** Mechanically inclined? Help work on the Wright B.**

*** Love People? Greet guests visiting the Museum.**

****Retail Experience? Work in the gift shop.**

*** Computer Skills? Help manage the website, archive images and mass mail newsletters.**

Learn, Contribute and Have Fun with Great People!

Front Office

Dispatch Operations
Tom Rose

Archivist
Linda Madaffer

Events Coordinator
Steve Donaldson

Gift Shop
Diane Baker
Clayton McDaniel
Mike Miller
Gayle Sachs

Information Technology
Tom Dermis

Landscape
Neal Charske

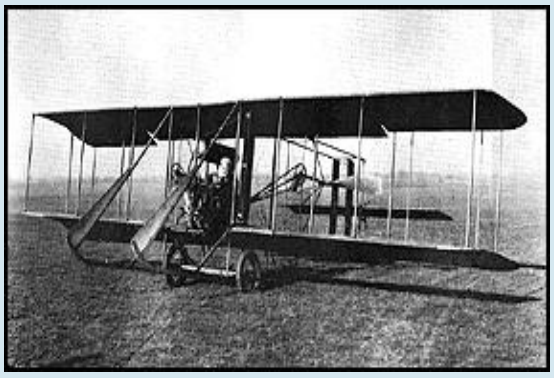
Office Systems
Paul Bauer

Media
Don Adams
Dominic Barone
Carlos Monzon
Bob Sachs

Model T
Frank Goepferich
Jim Perrine

Wright B Flyer Executive Committee

Jim Papa – Chairman
Don Adams – President
Fred Tegarden – Vice President
Jeff Stands – Secretary
Amanda Hayes - Treasurer



The Wright B Pilots

Rich Stepler, Chief Pilot
Hank Griffiths
Jay Jabour
Jeff Stands
Tom Walters
Don Stroud, Pilot Emeritus

Trustees

Don Adams
Sam Carbaugh
Steve Donaldson
Nicholas Georgeff
Amanda Hayes
Jay Jabour
Amanda Lane
Al Leland
Ed Mechenbier
Jim Papa
Tony Perfilio
Jeff Stands
Rich Stepler
Fred Tegarden
Tom Walters
Craig Willan

Park District Liaison
Nicholas Georgeff

Speakers for Presentations
Don Adams
Jeff Stands
Rich Stepler

Ground Crew
Jerry Troidl, Chief
Dave Barrington
Tony Bonser
John Brugger
Mark Culbertson
Carl Harlacher
Bill Jamison
Eric Rothwell
Dean Sollman
Bob Stemple