

Montana and the Sky

Montana Department of Transportation

Aeronautics Division

Vol. 74, No. 2

February 2023

Conference Keynotes: Betty Darst brings aviation history to life as Katharine Wright



Betty Darst poses for a photo as Katharine Wright as part of her living history presentation. *Photo courtesy of Betty Darst.*

Betty Darst portrays Katharine Wright and shares her insight into the world of the Wright Brothers in a presentation with a fierce dedication to detail and history. Think you know about the Wright Brothers? You may be surprised!

A gifted historian, Betty brings history to life through a multi-media presentation, showing seldom seen photos, letters, and diaries. The depth of her research is immediately evident, as it includes personal interviews with the family.

Her detailed personal account of the First Family of Aviation might just make you forget that she isn't really Katharine.

Ms. Darst will present at the Closing Banquet on Saturday, March 4th.

Conference Registration is Open!

Register for the 38th Annual Montana Aviation Conference using the link below or by scanning the QR code.

The Billings Hotel and Convention Center is offering a group rate for conference attendees.

See the event website or contact Justin Zindell at 406-444-9580 for more information.

Register online: <https://www.mdt.mt.gov/aviation/conference.aspx>



Attention Students:

If you are a student and are interested in attending the Montana Aviation Conference, a reduced registration fee of \$10 is available.

This includes access to all three days of the conference and is a great way to connect with employers, vendors, and the Montana aviation community.

**Keynote Banquets require separate meal purchase.*

Helena Airport District Office Manager Promoted

The Federal Aviation Administration (FAA) Helena Airport District Office (ADO), co-located at the Helena Airport with the Flight Standards District Office, oversees federal airport projects for airports throughout Montana and Idaho. They manage many different types of grants and facilitate the distribution of funds to about 70 airports in Montana.

The Montana Aeronautics Division works closely with the ADO to assist with gathering and compiling Capital Improvement Planning documents, coordinating state grants and loans with federal projects, and completing projects at the Lincoln and Yellowstone federally funded state-owned airports.

William "Chuck" Garrison has been heading up the Helena ADO since 2016. Chuck joined the Airports Division in 2006 and served in several different roles in the Atlanta ADO, including assistant manager, before moving to Helena to assume his role as manager.

He was recently selected as the Director of Airports for the Northwest Mountain Region and will be leaving his Helena post. We offer our sincere thanks to Chuck for the assistance he has provided as the Helena ADO manager. It is comforting to know that he will still oversee our airport projects at a higher level. Congratulations, Chuck!



Tim Conway, Administrator

Montana and the Sky
Montana
Department of Transportation

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Official monthly publication of the
Aeronautics Division
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Billings Airport Manager Retires

Kevin Ploehn recently retired after nearly three decades with the City of Billings, most of them with the airport. Kevin leaves the airport in great shape, with expanded services and opportunities, as a four-year, \$60 million remodeling project is wrapping up. Taking the helm of the airport is Jeff Roach. Jeff has over 30 years of executive airport administration, transportation, military, and management experience in the states of Tennessee and Alaska. Congratulations to Kevin and Jeff!

Bozeman Passenger Traffic Increases

While Bozeman (BZN) air traffic tower operations decreased 4.3% to 111,062 in 2022, they set a record of 2,264,424 passengers passing through the airport. This is an increase of 16.7% over the previous record set in 2021. Over 40% of passengers traveling by air to or from Montana traveled through BZN in 2022.

BZN is the busiest airport in Montana, the seventh busiest airport in the seven-state Northwest Region, and the 92nd busiest airport in the nation, in terms of passengers.

2023 AOPA Aviation Scholarships

Significant money is available to qualified applicants for aviation education through the Aircraft Owners and Pilot's Association (AOPA) scholarship program. While its website advertises dozens of scholarship opportunities, the offerings from AOPA are by far the largest. Applications must be received by **February 10, 2023**.

Awards from \$2,500 to \$14,000 are available for high school students, teachers, student pilots, rated pilots, and beyond. These applications take some effort to complete, and require others to write recommendations, so don't wait until the last minute to apply.

For criteria and to apply, visit:

<https://www.aopa.org/training-and-safety/learn-to-fly/aviation-scholarships>.

2023 Winter Survival Clinic

The 2023 Winter Survival Clinic was held January 6-8 at the Sugar Loaf Lodge in the Pintler Mountains near Anaconda.

Twenty-four participants from around the state gathered to learn hands-on skills applicable to surviving after making a forced landing in remote winter terrain.

Instructors Brett and Skip Stoffel from Emergency Response International provided classroom presentations and practical skills demonstrations, including survival mindset, shelter construction, fire-craft, first aid, and emergency signaling.

The course culminated in participants constructing and spending the night in improvised shelters. A group critique the following morning allowed participants to share lessons learned during the field exercise.



Photos: Winter Survival Clinic participants watch demonstrations of survival skills and put these new skills to the test in an overnight practical exercise.

Billings Students Building Boeing 306

Contributed by Patrick Kenney, Ben Steele Middle School



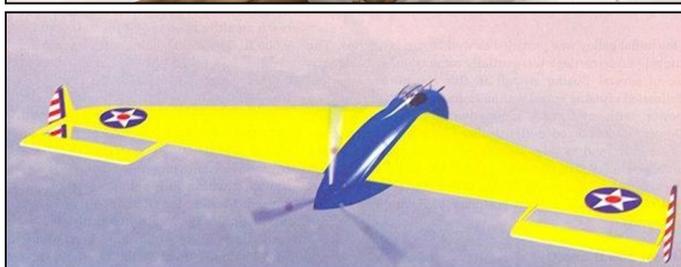
In 1935, Boeing Aircraft started working on flying wing designs to keep up with Northrop's preliminary work on the N-9M. Although Boeing came out with several designs, one of which was a B-17 flying wing, the single and twin pusher fighter variants of the Boeing 306 were thought to be the most promising designs. However, with the clouds of a second world-war gathering in Europe, the aircraft never progressed beyond the design stage.

Now, 12 high school students and their teacher, Patrick Kenney, have started building a full-size Boeing 306, working out of Experimental Aircraft Association (EAA) Chapter 57's hangar in Billings.

The project started several years ago with the students building scale models that were wind tunnel tested for lift, drag, and stability. Since no construction plans exist, students started by creating a three-dimensional model. Then, they lofted all formers and started building. Construction has been a roller coaster due to the pandemic but the crew is back up to speed and building three nights a week.

The project is funded by the Billings Education Association and the Karen Cox Grant. Several upperclassmen have started flying and completed solo flights. Most students involved in the build are planning on pursuing a career in aviation after collegiate education at Rocky Mountain College and the University of North Dakota aviation programs.

The aircraft is destined to hang in Billings' Ben Steele Middle School, and it will be the sixth student aircraft completed in EAA Chapter 57's hangar.



The Boeing 306 project airplane (top) and conceptual illustration (bottom). Courtesy of Patrick Kenney.

Opheim Airport History

Montana has widely varying topography, which includes many types of airports across the state. Many of these are grass airstrips with interesting history, like that of Opheim.

Montana Aeronautics staff recently visited this airstrip to conduct a triannual Airport Master Record survey, in coordination with the FAA. This survey is safety-oriented and is performed on public-use airports every three years. The focus is on identifying safety hazards, documenting obstructions, updating aerodrome facility information, and recording the conditions of pavement, lighting, and markings.

Opened to the public in November of 1949, the Opheim Airport originated in an age where new airports were constructed miles outside of town to support military bomber operations. In contrast, if one is looking for the pleasure of landing on their choice of wide runways and walking only a few paces from your tie down spot into town, the Opheim Airport offers three such runways and is worth a visit. It is also a great location to practice soft and short field operations with a variety of wind angles.

The Opheim airport may have had some use associated with the Air Force Radar Station in operation nearby from 1951 to 1979. Although the radar station is long gone, Opheim and its multiple turf runways are still there for the enjoyment of flyers traveling around northern Montana and is often utilized by aerial applicators.



Aerial photos show the wide turf runways that are reminders of Opheim's history supporting bomber operations in Montana.

Maintenance Minute: Oxygen Bottle Testing

Do you have an oxygen bottle installed in your aircraft or carry a portable bottle? Do you know when the next hydrostatic test is due? How about the service life of the bottle?

There are several different materials from which bottles can be made. First are standard weight cylinders: ICC-3AA or DOT-3AA stamped on the bottle. These are steel bottles that must receive a hydrostatic inspection every five years. There is no service life on these bottles, so they are good until they fail an inspection.

The second are light weight cylinders: ICC-3HT or DOT-3HT. These cylinders are required to receive hydrostatic inspection every three years and have a 24-year service life from the date of manufacture.

The third type are aluminum cylinders: ICC-3AL or DOT-3AL. These must receive hydrostatic inspection every five years. There is no service life on these bottles, so they are good until they fail an inspection.

The fourth most common cylinders are composite cylinders: DOT-E8162 or SP8162. These must receive hydrostatic inspection every five years and have a 15-year service life from date of manufacture. Although this does not cover all types of bottles, it includes the most common oxygen bottles used in aircraft. Check any bottles you have and have them tested if needed.

Bottles must be sent to a Department of Transportation/Research and Special Programs Administration certified technician for inspection. They first inspect the bottle for physical damage and make any repairs if required. The regulator is then removed, and the threads of the bottle and regulator are inspected. The regulator may not be functionally tested, as it is not required. The bottle is then inspected internally for corrosion (you should always have your system/bottle filled with oxygen because if it is left empty, moisture may enter the bottle and cause corrosion). Finally, the hydrostatic test is completed by placing the bottle in a special jacket that is filled with water and pressurized to two-thirds above its rated pressure. The bottle is measured for expansion and if it exceeds a specified value the bottle is rejected.

Reference: Cessna Pilots Association Tech Note No. 013 Rev. Date 03/08/2010

Montana Aircraft Mechanic Refresher & Inspection Authorization (IA) Renewal Seminar

The Montana Aeronautics Division will be offering a Mechanic Refresher and IA Renewal Seminar concurrently with the 2023 Montana Aviation Conference. Mechanics and Authorized Inspectors attending the seminar must register for the Aviation Conference, allowing you to attend other conference events in addition to the seminar.

Online Registration is now open.

<https://www.eventsquid.com/event/17918>



Register now to ensure your seat!

Registration Fees:

\$130 Individual Registration

\$10 Student Registration

(High School, College, AP Mechanic Students, and Student Pilots)

March 3-4, 2023

Billings Hotel and Convention Center

1223 Mallowney Lane

Billings, Montana

406-248-7151

Reference rooming block

Montana Aviation Conference 2023

to book a room at the group rate.

For more information, contact Derrick Olheiser:

dolheiser@mt.gov or 406-444-9592.

When registering, please indicate the sessions you plan to attend.

Only 8 hours are required to meet FAR Part 65.93

Sessions:

Friday, March 3rd, 2023

7:00-7:10 am - Welcome and Introduction

Session 1

7:10-8:10 am - Jeff Vercoe - FAA

8:10-9:10 am - Heath Johnson & Andrew Aunan - Lycoming Engines

Maintenance Tips/Resources/ Tool Rental

9:10-9:20 am - BREAK

9:20-10:20 am - Kirsti Dunks - Aviation Safety

10:20-11:20 am - Mike & Jessie Ellis - PinnaCal Tool Calibration

11:20 am - 1:45 pm LUNCH - FAA AMT Video option 12:30 pm - 1:30 pm

Session 2

1:45 - 2:45 pm - Wayne McGhee - Garmin

2:45 - 3:45 pm - Craig Stebbins - Cross Petroleum Service Oil/Greases

3:45 - 3:55 pm - BREAK

3:55 - 4:55 pm - Dick Jacobs - Northwest Propeller

4:55 - 5:55 pm Tim Gauntt - The Challenges of a Repair Station and What we Have Learned from 20 years of Experience.

Saturday, March 4th, 2023

7:00-7:10 am - Welcome and Introduction

Session 3

7:10-8:10 am - Jeff Vercoe - FAA

8:10-9:10 am - Wayne McGhee - Garmin

9:10-9:20 am - BREAK

9:20-10:20 am - Vince Bechtel - Tempest Aero Group Spark Plug Design and Maintenance

10:20-11:20 am - Charlie Field - Aerospace Welding Minneapolis, Inc.

Inspection & Maintenance of Aircraft Exhaust and Engine Mounts

11:20 am - 1:45 pm LUNCH - FAA AMT Video option 12:30 pm - 1:30 pm

Session 4

1:45 - 2:45 pm - John Nielsen - McFarlane Aviation Products: The care and feeding of the MT Composite Propeller

2:45 - 3:45 pm - Bryan Hansen - FAA HLN FSDO

3:45 - 3:55 pm - BREAK

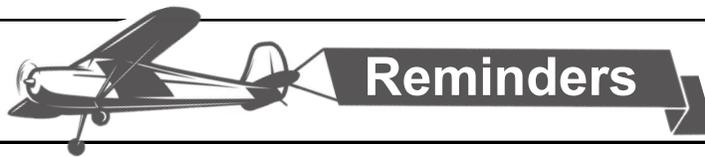
3:55 - 4:55 pm - Tim Gauntt - Who Needs A&Ps when you have YouTube?

4:55 - 5:55 pm Greg Cross - Cross Petroleum Service - Piston Engine Oils

For more information regarding Federal Aviation Administration (FAA) Inspection Authorization renewal requirements and forms, visit: https://www.faa.gov/about/office_org/field_offices/fsdo/hln/

Note: The FAA's preferred method for submitting IA renewals is via the IACRA website.

To register for an account go to: <https://iacra.faa.gov>



Reminders

2023 Flight Instructor Refresher Course

Registration is open for the **2023 Flight Instructor Refresher Course!**



- ◆ This two-day course meets FAA renewal requirements for Certified Flight Instructors (CFIs).
- ◆ Training will be provided by experienced instructors from Aviation Seminars.
- ◆ You do not need to be a CFI to attend. The course includes useful material for all aviators.
- ◆ A room block is offered at the Comfort Suites of Helena. Call 406-513-1141 and reference the "MDT Flight Instructor Refresher Course" to receive the state rate.

Tuition is \$75

Pilots currently registered with the Aeronautics Division can save \$25!

Montana pilot registration is \$10 /year. Call MDT Aeronautics Division to register as a pilot and/or ask for the promo code to receive your discount.

**February 10-11, 2023
Helena, MT**

To sign up: <https://aviationseminars.com/mt-firc/> or scan the code below.



For more information:
Montana Aeronautics Division
406-444-2506
mdtaerosafetyed@mt.gov

2023 Montana Airport Directory Available

Each year, the Aeronautics Division produces an updated Montana Airport Directory. One is included with each annual pilot registration and additional copies may be purchased for \$5.

Information such as field elevation, navigation and communication frequencies, and airport diagrams are displayed for each airport. It includes additional information that is not found in the FAA Chart Supplement, like alternate airport contact names and numbers, as well as courtesy car information.

To purchase a 2023 directory, please call Montana Aeronautics at 406-444-2506.

Please email Aviation Support Officer, Stephen Torske, with any directory updates at storske@mt.gov.

MDT Aeronautics Annual Pilot Registration

Montana is required to register all pilots in the state, with some exceptions. The annual fee is \$10 and includes a Montana Airport Directory, subscription to the monthly *Montana and the Sky* newsletter, and your annual pilot registration card.

Registered pilot information is collected to aid in the event of a search and rescue case, as it can help us locate and contact you more quickly during an emergency.

Annual pilot registration renewal memos were mailed in early December. **If you own an aircraft, you also automatically receive a pilot registration form with your annual aircraft registration invoice.** Only one pilot form is required to be returned or completed online per pilot.

- To register as a pilot online, please visit: <https://app.mt.gov/aeronautics>. Payment processing fees apply.
- To locate and print the form online for mailing to the Aeronautics Division, please visit: <https://www.mdt.mt.gov/aviation/regpilot.aspx>. Mail completed forms to: P.O. Box 200507, Helena, MT 59620-0507.
- To request a Pilot Registration form be mailed or emailed to you, please call the Aeronautics Division at 406-444-2506 or email mdtaerosafetyed@mt.gov.

Please note: Annual pilot registration with the Montana Aeronautics Division is required by state law, with some exceptions, and should *not* be confused with Montana Pilots Association's (MPA) registration dues.

For more information, or to view the applicable statutory exceptions, please see § 67-3-211, MCA: https://leg.mt.gov/bills/mca/title_0670/chapter_0030/part_0020/section_0110/0670-0030-0020-0110.html

Reminders



MDT Aeronautics Annual Aircraft Registration Deadline March 1, 2023

Montana does not tax aircraft, but does assess an annual aircraft registration fee in lieu of tax. The fees are set by the Montana Legislature and are determined according to the type and age of the aircraft.

Aircraft customarily kept in Montana, as well as any aircraft with a Montana address on its FAA registration, **must** be registered with the Montana Aeronautics Division on or before March 1 every year (or within 30 days of purchase date for any aircraft purchased). Aircraft renewal invoices are sent the first week of December, and a reminder letter is sent before the renewal deadline. **A statutory penalty for late registrations must be assessed in the amount of five times the registration fee if payment OR signed affidavit for exemption with supporting documentation is not received by the deadline.**

PLEASE POSTMARK OR TIMESTAMP YOUR REGISTRATION PAYMENTS OR AFFIDAVIT FOR FEE EXEMPTION WITH REQUIRED DOCUMENTATION ON OR BEFORE MARCH 1 FOR A RENEWAL (OR WITHIN 30 DAYS AFTER A NEW AIRCRAFT PURCHASE) TO AVOID THE PENALTY.

Please note that aircraft out of annual inspection are not considered “unairworthy” as defined by administrative rule and **are** subject to annual registration fees.

Online fee payment services for aircraft and pilot registration are available at:

<https://app.mt.gov/aeronautics>. Payment processing fees apply.

For questions, please contact the Aeronautics Division at (406) 444-2506 or mdtaerosafetyed@mt.gov.

****ACTION IS REQUIRED BY AIRCRAFT OWNERS ON ALL AIRCRAFT REGISTRATIONS EACH YEAR***

Calendar of Events

February 10-11, 2023 — Flight Instructor Refresher Course. To sign up visit: www.aviationseminars.com/mt-firc/. Contact Aeronautics at mdtaerosafetyed@mt.gov or call 406-444-2506 for more information. To book a room, call Comfort Suites at (406) 513-1140 and reference “MDT Flight Instructor Refresher Course.”

March 1, 2023 — 2023 Aircraft Registration Deadline. Remember to get your Montana aircraft registered no later than March 1, 2023 to avoid penalty fees. For more information, contact Aeronautics at 406-444-2506.

March 2-4, 2023 — Montana Aviation Conference. Billings Hotel and Convention Center, Billings, Montana. For more information, or to register visit: <https://www.mdt.mt.gov/aviation/conference.aspx> or call Justin Zindell at 406-444-9580. Registration is \$130 for individuals or \$10 for students.

March 27– April 1, 2023 — Sun ‘n Fun Aerospace Expo, Lakeland, Florida. Need a break from the Montana winter? Join over 225,000 aviation enthusiasts for the 2nd largest airshow in the world! Details at: <https://flaysnf.org/>

May 20, 2023 — Lincoln Airport Fly-in Breakfast. The Lincoln Airport Foundation will host fly-in breakfasts on the third Saturday of each month from May to September. For more information, contact Doug Vulcan at: vulcandg406@gmail.com.

Do You Know of an Aviation Event in Montana?

Montana Aeronautics relies on sponsors, planners, hosts, and volunteers of aviation events to inform us about planned activities. Please let us know what events you have planned, and we will add them to our calendar of events to share with the flying community.

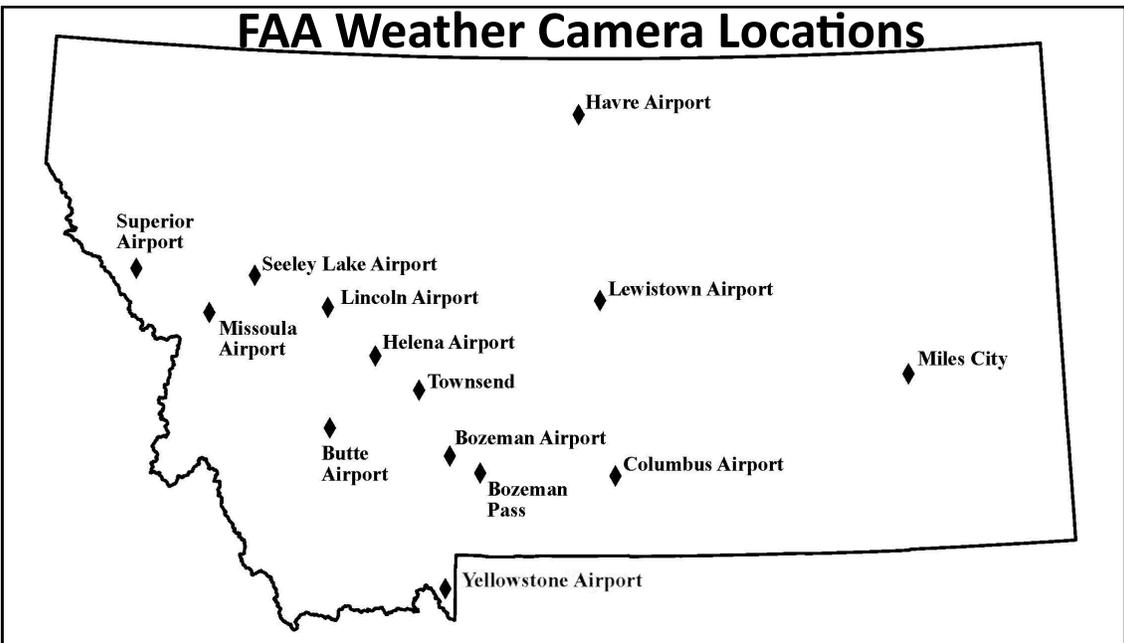
You can email your events to mdtaerosafetyed@mt.gov.

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