

# Montana and the Sky

Montana Department of Transportation

Aeronautics Division

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November 2020

## Clayton Wilhelm Earns FAA *Charles Taylor Master Mechanic Award*



*Clayton and Donna Wilhelm with Master Mechanic and Master Pilot Award plaques Photo Credit: Ron Rasmuson*



*Clayton working on wheel of the Spirit - 1977 Photo Credit: Pat Johnson*

*Article submitted by Pat Johnson*

Recently Clayton Wilhelm of Helena joined a very select group of Montanans — the six who are listed on the FAA website as holding both a Master Pilot and a Master Mechanic Award. Due to COVID-19, only Clayton's family and closest friends attended the FAA *Charles Taylor Master Mechanic Award* presentation with Jeff Vercoe at the Helena Airport. When it is safe to hold large events a gathering will be planned so all his friends can congratulate him. Clayton's involvement in aviation goes well beyond 50 years of safe mechanical work.

Clayton Wilhelm came to Helena, Montana, in 1961 to attend the Helena Vo-Tech Airframe/Powerplant school. At about the same time, he joined the Montana National Guard. At the Guard, Clayton worked on the L-19, L-20 Beaver, and Bell 13 helicopters replacing engines and tearing down and reassembling Bell 13 helicopters. By the time he retired from the Guard, he had worked on the OH-58, UH-1H, UH-1M, CH-34, and the last helicopter he maintained was the Huey gunship, the Cobra. In his 31 years with the Guard, Clayton worked 28 years as a full time mechanic and retired in 1992 as a mechanic foreman.

In about 1973, Clayton started working on civilian aircraft on his own performing annuals and 100-hour inspections on a Cessna 150. In 1979, he reassembled an Aeronca Champion 7DC that had been apart in storage for some time. He performed annual inspections on a Cessna 172 and was part owner of a 172. In 1981, he reassembled an Ercoupe that had run into a hangar.

After retiring from the Guard in 1992, Clayton went to work for the Montana Aeronautics Division maintaining their Cessna T-41 and Beach A-36. Before retiring from the Montana Aeronautics Division, he built two aircraft, a Vans RV- 4 and a RV-6a. He is currently an EAA Technical Counselor helping other builders with their aircraft and getting them ready for inspection and certification.

*Continued on Page 4*

# Aeronautics Board Loan & Grant Application

~ Final Reminder ~

As a reminder to Montana Aeronautics airport loan and grant program applicants, the Loan and Grant online portal (<http://www.mdt.mt.gov/aviation/loans-grants.shtml>) is accepting FY22 applications from July 1, 2020, through November 15, 2020.

If you cannot enter the website, you may have a previous award that needs a closeout form or a status report filed (required at project completion, or annually).

Additionally, projects must be broken down and listed as one project per line item on the application. As an example, asphalt projects should be broken down by runway, apron, and taxiway and not as one project lumped together.

If you have questions or need assistance, please contact Karen Speeg at (406) 444-9569 or [kaspeeg@mt.gov](mailto:kaspeeg@mt.gov).



## Aviation Photo Contest

Do you want to see your photograph on the cover of the 2021 Montana Airport Directory? Submit your photos to the Aeronautics Division by **December 1, 2020**, to be considered. The winning photo will be selected based on the best representation of aviation in Montana.

Submit your photos to: [mdtaerosafetyed@mt.gov](mailto:mdtaerosafetyed@mt.gov). For more information, email us or call (406) 444-2506.

*\*MDT Aeronautics retains all rights to submitted photos and may use them for other promotional purposes.*

## Flight Instructor Refresher Course

The MDT Aeronautics Division is hosting Aviation Seminars for the 2021 FIRC scheduled for January 22 and 23, 2021, at the Delta Hotel Colonial, 2301 Colonial Drive, Helena, Montana.

This two-day, FAA-approved course will run from 8:00 a.m. until 5:00 p.m. Friday and Saturday. It meets FAA renewal requirements for certified flight instructors and includes IACRA renewal.

Registration can be completed online at <https://www.aviationseminars.com/registration-form/?type=firc>. Tuition for Montana Aeronautics Registered Pilots: \$175.00, promocode required, Contact Aeronautics at [mdtaerosafetyed@mt.gov](mailto:mdtaerosafetyed@mt.gov) or call (406) 444-2506 to get your promocode and save \$20.00. Tuition for Non-Montana Aeronautics Registered Pilots: \$195.00. Not an Aeronautics Division registered pilot? Register now with the Division for \$10.00 per year and save \$20.00 off the FIRC registration. With your registration you will receive a pilot registration card, Montana Airport Directory, and newsletter. Email [mdtaerosafetyed@mt.gov](mailto:mdtaerosafetyed@mt.gov) or call (406) 444-2506 for more information.

A block of rooms has been reserved at the Delta Hotel Colonial at prevailing government rate plus tax. Reserve your room by calling (406) 443-2100 and reference rooming block "Aeronautics - Flight Instructor Refresher Course (FIRC)." This clinic will be socially distanced and will comply with the latest COVID-19 safety guidance.



Tim Conway, Administrator

**Montana and the Sky**  
Department of Transportation

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# Canadair Regional Jet 900 Service at Yellowstone Airport

COVID-19 has had significant impacts on air travel worldwide. Delta Airlines has restricted its aircraft fleet to 60% maximum total capacity to foster social distancing guidelines and best practices. For air service at the Yellowstone Airport, this means the regularly scheduled Canadair Regional Jet (CRJ) 200 aircraft holding a maximum passenger count of 50 has been downgraded to a maximum capacity of 30. As this past summer continued, more and more travelers were booking flights to visit Yellowstone National Park. The 30-seat maximum capacity limitation became burdensome as demand began to surpass it rather quickly early in the summer.

Instead of bumping passengers to later flights, the airline introduced CRJ900 service on certain days when the CRJ200 passenger limit was exceeded. The CRJ900 is an extended version of the CRJ200 jet. It measures 119' long compared to the CRJ200 at 87'10". In addition to the added length and overall passenger capacity, the 900 series offers a three-class seating configuration. There are 12 first-class seats in the front four rows, followed by 20 Delta Comfort+ seats, and then 44 regular economy seats directly behind. This marks the first time in over 30 years at the Yellowstone Airport an airline has offered a flying experience with more than just basic economy.

The Yellowstone Airport wrapped up seasonal airline service on October 13, and the airport closes by NOTAM for the winter when snow accumulates on the ground. It will reopen in the spring — always check NOTAMs!



Photo Credit: Aeronautics Staff

## New Airport Windssock Program



The Montana Aeronautics Division started a new windssock program this fall. The Division will provide one windssock yearly to each publicly-owned, public use, non-Federally funded airport. This new service will benefit approximately 30 airports in Montana. The program may be expanded to provide all needed windssocks these airports require on a yearly basis depending on the program's success, interest, and funding. Non-federally funded airports do not receive federal dollars and depend only on limited sources of funding for expenses and maintenance. With some of these airports relying on a budget of only \$500 a year, this new program is a noticeable benefit to aviation users in our state. The Aeronautics Division has several used windssock bases available on a first-come, first-served basis. For more information or to place a request, please contact Derrick Olheiser at (406) 444-9592, or email [dolheiser@mt.gov](mailto:dolheiser@mt.gov).

## 12 Aviation Scholarships Now Available; Deadline Approaching!

The Aeronautics Division assists in administering some of these scholarships and encourages participation. The scholarships are offered to Montanans to help defray costs of education. Scholarship applications must be date-stamped or postmarked, on or before 11:59 p.m. MST, **December 1, 2020**. The winners will be notified in February 2021. For a list of scholarships available this year, and how to apply, please visit <https://www.mdt.mt.gov/aviation/scholarships.shtml> or call the Aeronautics Division at (406) 444-2506.



# Registration for the Western Aerospace Scholars Program is Now Open



Montana Learning Center & Museum of Flight STEM companies want you! Earn college credit!

Western Aerospace Scholars (WAS) is an online distance learning course and summer experience specifically designed for high school juniors interested in pursuing science, technology, engineering, and math (STEM) pathways through the exploration of space and space travel.

The online curriculum is a University of Washington college course focused on NASA's space exploration program as well as topics in Earth and Space Science.

If scholars successfully complete the online curriculum, they are invited to participate in multi-day summer experiences that provide them the opportunity to work with STEM professionals, NASA scientists, university students, and STEM educators.

**Montana Aerospace Scholars** — A two-part program for high school juniors focused on the history and future exploration of space and topics in Earth and Space Science. Open to Montana residents only.

**Phase One** — Online distance learning course designed in partnership with NASA and the University of Washington provides scholars the opportunity to earn five UW college credits.

**Phase Two** — A multi-day residency experience where scholars work with STEM professionals, NASA scientists, university students, and STEM educators to plan a realistic space mission.

In addition to the course, WAS provides interaction with STEM industry professionals, hands-on engineering activities, and a national alumni network. WAS alumni are also provided exclusive opportunities for internships and college scholarships.

**Junior Program** — The junior-level program runs from November through April and has scholars participating in an online course consisting of ten bi-weekly lessons and a final project. If scholars successfully complete the online course, they can apply to receive five University of Washington natural

science (ESS 102) credits and are invited to participate in a six-day Summer Residency experience at the Montana Learning Center at Canyon Ferry Lake.

The Summer Residency provides scholars the opportunity to work with STEM professionals, NASA scientists, university students, and STEM educators to plan a human mission to Mars.

## Dates:

**Phase One** — November 2020 through March 2021

Assignments are due every two weeks, November to March.

**Phase Two** — June 2021, Junior program summer residency is a six-day, onsite experience, Sunday to Friday.

Held at The Montana Learning Center at Canyon Ferry Lake, near Helena, Montana.

## Student Requirements:

- High school junior in fall of 2020
- Resident of Montana
- Internet access for Phase One

## WAS Junior Applications now open!

[https://www.jotform.com/museumofflight/WASapplication\\_jotform.com](https://www.jotform.com/museumofflight/WASapplication_jotform.com)

*\*Program subject to modification or cancellation based on the latest COVID-19 guidance.*

Continued from Page 1



Clayton's Ercoupe in early 1980s "Hell of a toy!"  
Photo Credit: Donna Wilhelm

He was flying all along as he worked as a mechanic. A flight from a Pryor, Montana, hayfield in a Cessna 120 when he was 12 started him on a lifelong aviation career. From the time he earned his certificate, he started taking people for rides. He estimates that he gave 357 people their first airplane ride and has taken over 1,000 people for rides.

In 1970, Clayton co-founded the Helena EAA Chapter, and in 2017, he received the FAA Wright Brothers *Master Pilot* Award. His wife, Donna, has always supported and flown with him and helped with maintenance. He credits her for much of his success in the past 50-plus years.

# Aviation Quiz

1) If you see a \_\_\_ cloud formation, it's often a sign of mountain wave turbulence.

- A: Cumulonimbus mammatus
- B: Wall
- C: Cumulus congestus
- D: Standing lenticular



Photo credit: Aeronautics Staff

2) Satellite photos have shown mountain waves extending as far as \_\_\_ miles downwind of the Rocky Mountains.

- A: 500
- B: 300
- C: 700
- D: 900

3) Your RPM is dropping, and you think it's because of carb ice. You turn the carb heat on, and the engine starts running extremely rough. What should you do?

- A: Turn carb heat back off immediately
- B: Pitch up to reduce airflow over the engine
- C: Leave carb heat on
- D: Pitch down to increase airflow over the engine

4) Montana has had approximately how many tower operations year-to-date?

- A: 1,600
- B: 36,000
- C: We have control towers?
- D: 205,000

5) Aircraft that are out of annual inspection do not need to pay annual aircraft registration fees in Montana each year by March 1.

- A: True
- B: False

6) Montana requires all aircraft registration renewal payments, or affidavit for fee exemption, to be received by March 1 of every year without exception.

- A: True
- B: False

7) It is illegal to manufacture, repair, or install a 121.5 only ELT in aircraft now.

- A: False
- B: True

# The Silent Killer in the Sky

The NTSB's Michelle Watters recently posted a blog on the agency's Safety Compass newsletter advising general aviation pilots to watch out for the "silent killer in the sky" — carbon monoxide.

The article begins: "As the weather gets colder and using your aircraft's cabin heater becomes more of a necessity than a luxury, there's no better time to start thinking about a plan for handling carbon monoxide. Commonly called the "silent killer," carbon monoxide is best known as the cause of household poisonings from oil or gas furnaces, stoves, water heaters, or portable generators or fireplaces. For general aviation pilots, carbon monoxide exposure poses a particularly concerning threat because impairing levels can build quickly in an enclosed cabin, and even nonfatal levels can lead to tragic consequences in flight."

For example, in 2017, a private pilot was flying his newly purchased Varga 2150A airplane on a visual flight rules cross-country flight. After flying for about 80 minutes, the airplane suddenly entered a spiraling descent from cruise flight. Witnesses observed the airplane flying erratically at low altitude before it hit an open field near Bowling Green, Ohio. They stated that the engine was running until impact. Toxicological testing of the pilot's blood found 55% carbon monoxide saturation (toxic level is 20%).

Read the entire post at:

<https://safetycompass.wordpress.com/2020/09/23/general-aviations-silent-killer-in-the-sky/> where the dangers on carbon monoxide, maintenance and inspection issues, and how to prevent carbon monoxide exposure.

Article summarized with permission from General Aviation News



Photo credit: General Aviation News

## Winter Survival Clinic



We are planning to conduct the winter survival clinic again in February 2021 based on popular demand! This clinic will be socially distanced with additional sanitization and will comply with the latest COVID-19 safety guidelines.

The location is to be determined. Stay tuned for the next announcement with the location selection. Please contact the Aeronautics Division by calling (406) 444-2506 or email [mdtaerosafetyed@mt.gov](mailto:mdtaerosafetyed@mt.gov) to hold your spot in this clinic; class size is limited. Last year we filled up in less than a week! Clinic cost is \$150.00 with full payment required at the time of registration.

*\*This clinic is subject to alteration or cancelation due to latest COVID-19 restrictions and guidance. Refunds will only be available if the Department cancels the clinic.*

## EAA Chapter 344 — Helena, Montana Celebrate 50 Years



*Founding Member Clayton Wilhelm, current president Albert Hathy, and newest (and youngest) member Gabe Varns Photo Credit: Donna Wilhelm*

Article submitted by Pat Johnson

Sometime in the 1950s, Bill Bradford arrived in Helena, Montana, bringing with him a degree in aerospace engineering and an interest in homebuilt planes. He started Bradford Machine Works, and it was a busy concern when he recruited Clayton Wilhelm, EAA 45123, in the late 1960s to help him begin an EAA chapter. As his business grew, Bradford dropped out of the chapter and Clayton continued to the present day, leading the original informal group, recruiting and supporting members, and eventually becoming an EAA Technical Counselor.

Clayton often flew to Oshkosh and was instrumental in getting the EAA's replica of the *Spirit of St. Louis* to stop at Chapter 344 during its 1977 flight to commemorate 50 years since Lindbergh's 1927 flight to Paris. When the *Spirit* had a cracked wheel rim, Clayton helped replace it after EAA sent a replacement part on the airline. This is the only flying replica that carries the original designation, NX211.

Eventually, the original group became formalized as EAA Chapter 344 and selected "Mountain Dodgers" as their name. Although Helena has a finite number of home builders, membership has remained constant over the years. Currently, about one quarter of the membership are building aircraft.

The chapter has annually awarded a \$500 *Charlie Taylor/Rosie the Riveter* scholarship to a second-year student in the Aviation Maintenance program at the Helena College, University of Montana. Applications are submitted every fall, and a winner is selected each January. Members provide Young Eagles flights to students aged 8 to 17 to kindle interest in aviation. These flights usually occur in May, July, and August in the absence of a pandemic. Also, Chapter 344 hosts a free barbeque for members and community members each June. The EAA Chapter 344 website is located at <https://chapters.eaa.org/eea344>.

Alternative accessible formats of this document will be provided on request. Persons who need an alternative format should contact the Office of Civil Rights, Department of Transportation, 2701 Prospect Avenue, PO Box 201001, Helena, MT 59620. Telephone 406-444-5416 or Montana Relay Service at 711.

## Virtual IA Seminar Being Developed

The IA renewal seminar is typically held concurrently with the Montana Aviation Conference, which has been canceled for 2021 due to the COVID-19 pandemic.

This year, we will be offering the seminar virtually due to the conference cancellation. Normally, all IA speakers would be in attendance at the conference, but a virtual seminar will allow presenters from all around the nation to present and accomplish renewal requirements.

Stay tuned to the next newsletter for updates; we plan to offer the seminar around the usual time.



**HAPPY  
THANKSGIVING**

**From MDT—Aeronautics Staff**

*Lucas Borowicz, Tim Conway, Bron Hansen, Jeff Kadlec, Staci Leitgeb,  
Matt Lindberg, Marc McKee, Derrick Olheiser, Karen Speeg, Patricia Troien*

## Color Newsletter Option Wins by Popular Demand!

Thank you to everyone who provided feedback and the supportive comments!  
The majority of respondents would like to keep the new color newsletter.

**Quiz Answer Key: 1:D 2:C 3:C 4:D 5:B 6:A 7:B**

## Calendar of Events

**November 15, 2020 — Airport Loan and Grant Application Period Deadline.** More information can be found at <https://www.mdt.mt.gov/aviation/loans-grants.shtml> or contact Karen Speeg at (406) 444-9569 or [kaspeeg@mt.gov](mailto:kaspeeg@mt.gov).

**December 1, 2020 — 2021 Montana Aviation Scholarship application deadline.** More information can be found at <https://www.mdt.mt.gov/aviation/scholarships.shtml> or contact the Aeronautics Division at (406) 444-2506.

**December 1, 2020 — Photo contest deadline.** See Page 2 for details.

**January 13-14, 2021 — Aeronautics Board Meeting.** This will be a virtual meeting, further details to be announced. For additional information, contact (406) 444-2506.

**January 22-23, 2021 — Flight Instructor Refresher Course (FIRC).** The MDT Aeronautics Division will conduct the 2020 FIRC at the Delta Hotel Helena Colonial, located at 2301 Colonial Drive, Helena Montana. Rooms have been blocked at prevailing government rate plus tax. Reserve your room by calling (406) 443-2100 and reference rooming block "Flight Instructor Refresher Course." The two-day, FAA-approved course will run from 8:00 a.m. until 5:00 p.m. on Friday and from 8:00 a.m. until 5:00 p.m. on Saturday. For more information, contact Matt Lindberg at (406) 444-9568 or email [mlindberg@mt.gov](mailto:mlindberg@mt.gov).

**January 24-26, 2021 — Association of Montana Aerial Applicators (AMAA) 2021 Convention and Trade Show.** Attend the AMAA trade show at the Heritage Inn in Great Falls, Montana. Have fun while learning and networking with peers and exhibitors. See the latest technology and specialty items and be eligible to win door prizes. For more information, contact Colleen at (406) 781-6461 or [eccampbell@yahoo.com](mailto:eccampbell@yahoo.com).

**February 19-21, 2021 — Winter Survival Clinic.** See Page 6 for details.

**\*All events are subject to modification or cancellation per the latest COVID-19 guidance**



**VISION ZERO**

zero deaths · zero serious injuries

MONTANA DEPARTMENT  
OF TRANSPORTATION

**November 2020**

5403

Aeronautics Division

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## **Vision Zero: A Goal for Everyone**

In 2019, there were 184 fatalities on Montana roads.

What does that mean? 184 parents, children, grandparents, friends, siblings, spouses, and other loved ones had lives that were cut short. It also means countless tears and shattered lives for those left with the aftermath of unsafe driving behaviors. Which loved one are you prepared to lose? If your answer is none, then Vision Zero is also YOUR goal.

It will take every one of us to work towards the day that Vision Zero is met, and the fatality total reads "ZERO." Two of the highest contributing factors to traffic fatalities in 2019 were alcohol and no seat belt.

These are behaviors that can be changed! Start by always wearing your seatbelt and planning for sober transportation. Remind your loved ones and those around you to do the same.

*-Director Mike Tooley, MDT*

Visit [www.mdt.mt.gov/visionzero](http://www.mdt.mt.gov/visionzero) for more information.

**VISION ZERO**  
zero deaths · zero serious injuries

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