

Montana and the Sky



Montana Department of Transportation

Aeronautics Division

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High School Students Explore Aviation Careers

In early summer the Aeronautics Division put on its youth summer camp called ACE Academy (Aviation Career Exploration). ACE is an exciting, two-day program for high school students considering a career in aviation or for those with an interest in aviation. The students were able to go on airplane flights, attend a general aviation fly-in at Canyon Ferry Lake and tour the Helena air traffic control tower, Montana Air National Guard helicopter facility, the DNRC fire suppression air wing, Helena College aircraft mechanic program, the Helena Airport and airport fire rescue program, an air ambulance and charter service and a crop dusting operation. The goal of this camp is to expose students to some of the many career possibilities in the aviation field in hopes to inspire more youth to join the industry.



Students sit in a Lakota EC-145
Photo Credit: Aeronautics Staff



Pilots and ACE Academy students stand near Doyle Davis's Bird Dog at the fly-in at Canyon Ferry. Photo Credit: Bob Frank-Plumlee.



Anna Ebert, Admissions Counselor at Helena College, show students aircraft mechanic program hangars
Photo Credit: Aeronautics Staff

Exec Air General Manager Adam Weitz shows students the fixed base operations at Helena Airport
Photo Credit: Aeronautics Staff



The MDT Aeronautics Division THANKS the Following Sponsors & Supporters Who Helped Make the ACE Academy a Success

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- DNRC, Helena
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- Exec Air
- Bob & Karen Frank-Plumlee
- Richard Fox
- Helena College (U of Montana)
- Helena FAA Air Traffic Control Tower
- Helena Regional Airport
- Bob Hollister
- KLJ
- Montana Pilots Association
- Morrison-Maierle
- Neptune Aviation
- Rocky Mountain Fire Training Center
- John Semple
- Jan Smith



All pictures above taken during Canyon Ferry fly-In Photo Credit: Aeronautics Staff



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Vice President Pence Flies into Yellowstone Airport on the Way to Old Faithful

On Thursday June 13th Vice President Mike Pence and his wife, Karen, flew into the Yellowstone Airport for a trip into Yellowstone National Park. Preparation for the visit started days in advance and many different government agencies came together to help the event go smoothly.

The airport was an obvious pick for the Vice President and his staff due to its proximity to Yellowstone National Park and Old Faithful Geyser, where Mr. Pence gave a speech alongside Interior Secretary David Bernhardt about funding park improvements.

Mike and Karen Pence arrived on a highly equipped version of the Boeing's 757 known as "Air Force Two". The Yellowstone Airport operations and management team had been coordinating many of the logistics for the visit with the Secret Service and the Air Force all week. A few airport staff members had the chance to meet the Pences and even more had the opportunity to tour Air Force Two.

Many federal and local agencies collaborated to ensure the motorcade moved swiftly through the park; however, there was a slowdown due to some bison inching towards the road, a problem that many park visitors can relate to. The trip to Yellowstone wrapped up the vice president's two day visit to Montana and it surely left a positive impact on the town of West Yellowstone and the airport after being in the spotlight.



Mike and Karen Pence visit West Yellowstone Photo Credit: Aeronautics Staff



Brad Wursten's MSX-R aircraft, Air Fair attendees enjoying events Photo Credit: Aeronautics Staff

First West Yellowstone Air Fair Sponsored by Choice Aviation

On July 20, 2019, Choice Aviation sponsored the first West Yellowstone Air Fair at Yellowstone Airport. Choice Aviation has put on many similar events at airports across the region. The event started at 9:00 a.m. with free aircraft rides followed by a ping pong ball airplane drop competition for the kids in attendance. Like an Easter egg hunt, the kids searched for ping pong balls in a controlled space that had been dropped earlier by an airplane. The kids who collected the most ping pong balls won prizes.

Around 11:30 a.m. Brad Wursten, an experienced airshow pilot, thrilled the Air Fair audience with an amazing show of aerobatic flight maneuvers in his MSX-R Aerobatic Aircraft. The event also included a free BBQ lunch and a chance to look at amazing airplanes that flew in for the event. The Air Fair event was a great opportunity for residents from town and the surrounding West Yellowstone area to experience aviation from one of its most fun perspectives. This is a biennial event. Be sure to put it on your calendar for the third week of July 2021.

Helena Air Tanker Base Increases Tank Capacity

The Helena-Lewis and Clark National Forest says new tanks installed in Helena will better serve larger aircraft to combat wildfires.

The Helena Aviation Center recently installed new pumps, two 25,000-gallon tanks of liquid concentrate and one 25,000 gallon off-load tank. The larger tanks replace 10,000-gallon tanks and will give the Forest Service's tanker base the capability to more effectively serve "Very Large Airtankers," or VLATS, used in wildfire suppression.

A VLAT can hold upward of 11,000 gallons of retardant, about four times the capacity of the average propeller-driven tanker.

Shown in the pictures is a 10,000-gallon unit on the left and 25,000-gallon unit on the right.



10,000-gallon tank on the left is replaced by the 25,000-gallon tank on the right Photo credit: Helena Independent Record

The Round Engine Round-Up Returns to Yellowstone Airport



On Saturday, June 29, 2019, Yellowstone Airport hosted an event put on by the Recreational Aviation Foundation (RAF), which is an organization that works to preserve, maintain, and create general aviation air strips. The organization was founded by a group of Montana pilots who wanted to work to protect aviation against the threat of airstrip closures. The organization puts on multiple events each year to help bring pilots together and advocate for their common cause.

One event that draws a lot of attention is the Round Engine Round-Up. This was the second year in a row that the Round Engine Round-Up made a stop through Yellowstone Airport for breakfast at the pilot campground.

The volunteers from RAF came together on Friday evening to start getting everything prepared the delicious Saturday breakfast, which was followed by great views of antique round engine aircraft. The Round Engine Round-Up was a great opportunity to get the word out about RAF and show pilots and aviation enthusiasts the various amenities that the Yellowstone Airport has to offer.

Breakfast is enjoyed by many at Yellowstone Airport campground. Photo Credit: Aeronautics Staff

A Loose iPad Jammed This Pilot's Trim Wheel, Leading To An Emergency Landing

A contribution from Boldmethod

Have you ever dropped your iPad in the cockpit? What would you do if this happened to you?

But First... A Review Of What Trim Does

Trim holds airspeed. If you trim for a speed and let go of the yoke, your plane will keep flying at that speed, regardless of your power setting. If you trim and change your power, your plane will pitch up or down to maintain your trimmed speed. Trim for climb speed, let go, and you'll maintain climb speed. Trim for cruise, let go, and it'll maintain cruise speed. Trim for final approach speed, let go, and you'll maintain final approach speed. The list goes on. **Trim holds airspeed.**

Trim systems can fail. Broken pulleys, lines, hydraulics, or even foreign object debris (FOD) in the cockpit can render a trim system useless. A trim runaway happens when an un-commanded trim setting progresses. If left unchecked, it can render an airplane nearly uncontrollable. This is a big deal, especially for jets flying at high speeds with large control forces.

Corporate Flight Crew Declares An Emergency. We found the following NASA ASRS report which details a jammed trim wheel leading to an emergency landing. This experienced crew was flying a light corporate jet.

Upon descent, between four thousand and ten thousand feet, an annunciation "Master Caution" illuminated with "AP Mistrim" illuminated. After the Master Caution switch was pressed the annunciation extinguished shortly after. The Captain (flying pilot) pressed and held down the AP disconnect button, disconnecting the AP. He then tried to manually trim the aircraft and the elevator trim wheel was jammed and would not move.

At this point, he asked me (first officer; non-flying pilot) to declare an emergency, request ground equipment to be standing by. He then instructed me to run the checklist. I proceeded to run the checklist for both AP Mistrim annunciation and then trim controls jammed. The Captain landed the aircraft safely and we taxied to the FBO. After deplaning the aircraft, the Captain went back in the aircraft to troubleshoot the problem with the power ON. First with the electronic trim, then manually. Upon doing so the Captain noticed something was moving underneath the trim wheel. During the descent, an iPad got lodged underneath the trim wheel and jammed the trim wheel. To prevent this from happening in the future, I suggest having the pilot's side pockets to be utilized for iPads, and the pilots rear pockets used for the checklist. This would prevent an iPad from sliding underneath the trim wheel and jamming the trim controls.

Flying With Jammed Trim

What should you do if your trim is jammed? First, transfer the flight controls to another pilot (when able) and try to locate any FOD in the cockpit. Before continuing to test the trim, follow your emergency/abnormal checklist. If you continue trimming, you may stick the controls in a progressively worse, unrecoverable state.

You'll have to fly using more manual force than you may be used to. If you're stuck with too much nose-up trim, flaps will help lower the nose as the aircraft flies at a smaller angle of attack (AOA). With too much nose-down trim, adding flaps could have the opposite effect.

Danger Of FOD In The Cockpit

We've all heard the dangers of FOD on the runway. The posters of FOD damage are a common sight in FBOs and flight schools across the country. But how about in the cockpit? Do you strap down all of the luggage? How about your flight bag and your iPad?

There's a lot that can come loose and interfere with flight controls, even your electronic flight bag (EFB). Thankfully, this iPad didn't manage to disable something as critical as the elevator or ailerons. If you can use a solid mount or kneeboard, that's a much safer alternative than holding your iPad freely.

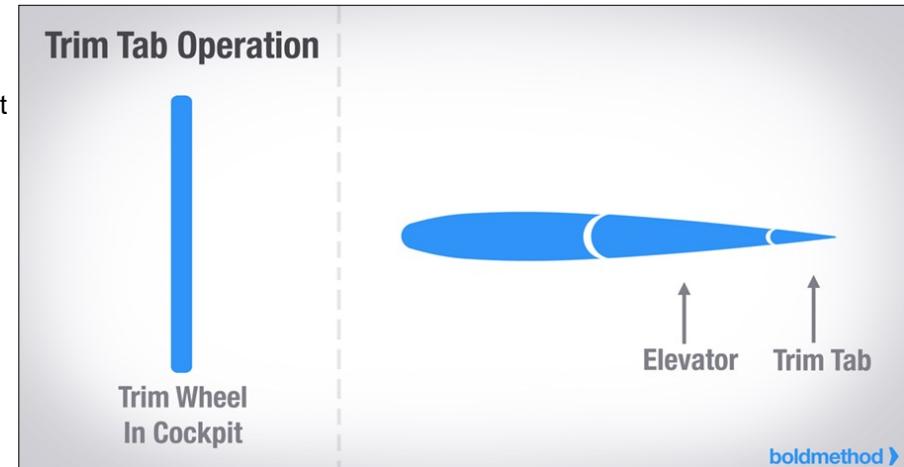


Photo Credit: Boldmethod

[boldmethod](#)

Montana 99 Air-Marking Season Starts

Contributed by Janine Schwahn



Montana 99s working on Conrad Airport air-marking.

Photo Credit Janine Schwahn

June 7th began the air-marking season this year for the Montana 99s. The 99s started the season by teaching the Wyoming chapter how to paint a compass rose at Hot Springs, SD. The 1100 mile roundtrip was accomplished over the weekend with 4 members of the Montana Chapter participating. June 29th found the Montana 99s at the Twin Bridges airport which had patiently waited since 2018 for their air-marking. The new air-mark was placed directly in front of the camping area off the parking ramp.

Two weeks later, on July 13th, the girls made their way to Choteau and Conrad. Choteau had been planned since 2017, but had to be scrapped due to the fire season that summer in the area. But persistence pays off, and they finally made good on their word and got it done. Never a dull moment, all three air-marking outings have been plagued with thunderstorms and hail, but a more dedicated (some say stubborn) group of women you will not find!

With the air-markings happening every other weekend this summer, the girls plan to paint the state yellow and might be coming to an airport near you! Montana Aeronautics is a proud supporter of the Montana 99s, supplying all the paint used in the Montana air-markings.

Aeronautics Board Loan & Grant Application Reminder

As a reminder to loan and grant applicants, the Loan and Grant online portal (<http://www.mdt.mt.gov/aviation/loans-grants.shtml>) will accept FY 2021 applications starting July 1, 2019, through November 15, 2019. If you cannot enter the website, you may have a previous award that needs a closeout form or a status report filed.

Additionally, make sure projects are broken down as required. As an example, asphalt projects should be broken down by runway, apron and taxiway and not as one project lumped together. If you have any questions or need assistance, please contact Wade Cebulski at (406) 444-9581 or wcebulski@mt.gov.



Miss Montana on
Display at
Seeley Lake Fly-In



DC-3 Miss Montana Photo credits: Scott Newpower

Saturday afternoon on July 13 the Seeley Lake Airport had about half a dozen aircraft fly-in. The weather deteriorated Friday evening and many aircraft could not make it. Lindey's food truck served steak sandwiches for dinner Saturday night, most attendees that flew in camped overnight on the field in the rain.

Sunday morning yielded a few more aircraft arrivals and breakfast was served to about 85 people. Some people reported that the huckleberry pancakes made it the best fly-in breakfast they had ever attended! Once the weather improved later Sunday morning, Miss Montana did a low pass and then landed. Around 200 people from town came out to see and tour the aircraft.

Calendar of Events

August 1, 2019 — Young Eagles® Rally at Three Forks Airport (9S5). Sponsored by Helena EAA Chapter 344 from 9:00 a.m. to 12:00 p.m. The EAA Young Eagles® program strives to motivate youngsters aged 8 thru 17 to consider a career in aviation by providing positive experiences in the form of free airplane rides. Kids must have the permission of a parent or guardian to fly. For additional information contact Lance Seaman (406) 442-8459.

August 2-3, 2019 — Three Forks Fly-In. The Montana Antique Aircraft Association is hosting this FREE 42nd annual two-day event. Fly or drive in and enjoy flying events, great food, free camping and the camaraderie of friends old and new. For more information contact Pat Green at (406) 539-1880 or greenrrg@aol.com.

August 8-10, 2019 — CAN-AM Aerobatic Competition. This event is hosted by Cut Bank International Airport. For more information contact Dave Ries at (406) 229-0376 or by email at cbaa_mt@yahoo.com

August 16-18, 2019 — Montana Fun Weekend. Cut Bank Montana's "Montana Fun Weekend" is an annual event hosted at the airport that includes an aircraft fly-in, car show, bike show, 1/8 mile drag races, food vendors, and fun for the whole family. This year we will host the first annual "Trails and Ales" Brewfest in the historic hangar from 4:00 p.m. to 9:00 p.m. on Saturday. Join us for some of the best brews from Montana breweries and live music. For more information contact Roy Nollkamper (406) 873-2137/450-1078 or email nollkamper47@hotmail.com

September 7, 2019 — Annual EAA Chapter 1122 Fly-In Breakfast. This year's event at Polson Airport is themed "Thanking Our Veterans." Warbirds will be on display to commemorate the 75th anniversary of D-Day. For information contact Joe Kuberka at (719) 393-5550.

September 7, 2019 — Rocky Mountain College Fly-In. Hosted by Rocky Mountain College Flight Team at Columbus Airport (6S3). Breakfast starts at 8:00 a.m. All pilots are invited to compete in the Power-Off 180 spot landing and Flour Bombing competitions. For more information contact Coach Sam at (406) 861-1170.

September 7, 2019 — Helena Open House & Fly-In. EAA Chapter 344 will be holding an open house, Young Eagles rally & free pancake breakfast at Montana Aeronautics, 2630 Airport Road in Helena from 9:00 a.m. to 11:00 a.m. Families are welcome to enjoy a pancake breakfast and see homebuilt and manufactured aircraft on display while youngsters 8 to 17 years of age may register for free airplane rides by volunteer EAA pilots. Young Eagles must be accompanied by a parent or guardian. EAA-qualified pilots willing to volunteer to fly Young Eagles, and for more information, contact Lance Seaman at (406) 442-8459.

What is the WINGS program?

There's nothing like the feeling you get when you're flying at the top of your game and FAA's WINGS Pilot Proficiency Program is a great way to get there!

WINGS Pilots expand their aeronautical knowledge by taking Federal Administration Safety Team (FAASTeam) online courses and attending seminars and webinars. They also pursue flight activities with their Flight Instructors to refresh and improve their flying skills.

To help you get on the pathway to proficiency, the FAASTeam is introducing the WINGS Topic of the Quarter (WTOQ). This allows us to pre-select knowledge and flight activities for each calendar quarter that will:

- Improve your piloting knowledge and skill
- Increase your comfort, confidence and safety
- Accumulate knowledge and flight credits to earn WINGS Phase Awards

Please note that you may also continue to select your own flight events and knowledge topics for WINGS according to your own personal preference.

Earning a WINGS phase gets you a set of wings, satisfies your Flight Review requirement, and makes you eligible to win cash prizes. Need more info or help with WINGS? Go to www.FAASafety.gov.

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Vision Zero: A Goal for Everyone

VISION ZERO
zero deaths · zero serious injuries

**MONTANA DEPARTMENT
OF TRANSPORTATION**

In 2018, there were 181 fatalities on Montana roads.

What does that mean? 181 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 2018 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 for more information.

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