

# MISO GA NEWS



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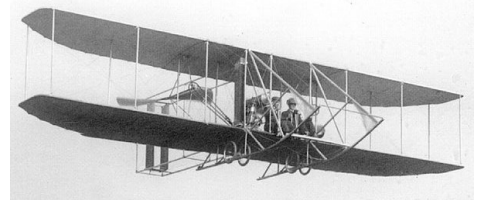
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## Missoula pilot Larry DePute receives Wright Brothers Master Pilot Award

Gary Matson



*FAA's Jeff Vercoe presents Larry with the Award*

The twelve-year-old Boy Scout was in the right seat of a military version of the DC-3 flying at the Marine Corps Air Base in Iwakuni, Japan where his Dad was based. He could not possibly have dreamed that seventy years later he would be in Missoula receiving an award for 50 years of safe and proficient flying. That happened to Larry DePute when family and friends gathered at MSO's Chapter 517 EAA hangar on April 18, 2024. That evening, the FAA's Jeff Vercoe presented Larry with the highly coveted Wright Brothers Master Pilot Award.

Larry studied Wildlife Biology at Humboldt State University and subsequently served as a Navy Corpsman. He soloed in 1973 while attending Stanford University and not long after received his Private Pilot Certificate. He and his wife, Connie, moved to Juneau, Alaska in 1978 where Larry continued a career as a licensed Physician Assistant. He found a friendly group of experienced aviators at the airport in Juneau and with their encouragement advanced through endorsements and certificates

culminating in Certified Flight Instructor for single engine, land and sea. As the years went by, his growing experience led him to restoring his 1955 Super Cub and to becoming an A&P Mechanic. He built an RV4 experimental aircraft and helped his flying partner build an RV8.

Larry's flying experiences have been exceptionally challenging and diverse. As a member of the Alaska Civil Air Patrol he flew search and rescue missions. He participated in surveying the consequences of the infamous Valdez oil spill. Particularly outstanding were his years of recreational cross-country flying in his Super Cub before the days of GPS and extensive weather coverage. Larry, Connie, and a couple who were their friends flew to every corner of Alaska as well as to all the western U.S. states. They camped under their airplane's wings during visits to many villages and small towns in Alaska, Yukon Territory, British Columbia, Northwest Territory, and Alberta. He has more than 3,300 hours in 29 different models of wheeled aircraft and 11 different float or amphibious aircraft. Beaches, gravel bars, and lakes were some of his favorite places to land.

Larry's gorgeous RV-4 has been hangared at MSO and plied Missoula skies for 10 years. Its naming honors the occasion when Larry completed its building but lacked the funds to buy an engine. His wife committed to work another year to help buy the engine. Hence, the aircraft became "Saint Connie."



*Larry and Connie in his then newly rebuilt 1955 Super Cub*

*(See "Award" continued on page 3)*

*("Award" continued from page 2)*

At MSO, Larry has been a technical advisor for EAA Chapter 517, assisting experimental aircraft builders ensure that their work was up to FAA standards. He was an invaluable participant in the DC-3 Miss Montana restoration that enabled its flight to Europe in observance of the 75<sup>th</sup> D-Day Anniversary in June of 2019. Congratulations, Larry, on your richly deserved award.



*Larry and Connie at the award ceremony with their Grandfamily Karen, Matt, and 4½-year-old Evie;*



*Saint Connie adds color to Missoula skies.*



*Some of Larry's favorite landing places in Alaska – British Columbia river bar, Ice skating a remote lake, Taku Glacier picnic*

## Bringing aviation to Alberton

Gary Matson

What happens when you combine an enthusiastic middle school teacher, an enthusiastic pilot, and an enthusiastic supporting organization? You get an enjoyable educational exploration. Alberton School's McKenna Akane has sought out ways to give her students stimulating learning experiences. She participates in Project Lead the Way, a program offering a STEM-based curriculum for progressive educators. Through STEM Professional Development she learned about the curricula and materials offered by the Civil Air Patrol. She investigated and discovered the CAP's Aerospace Connections in Education (ACE) program (see related article). She found an enthusiastic supporter in the CAP Montana Wing's Major Stephen Heffel. With his help, she enrolled in ACE and became an Aerospace Education Member (AEM).



*Pete Graf shows Alberton students his CAP pilot uniform.*  
*Photo courtesy of McKenna Akane*

Besides contributing curricula and STEM kits for McKenna's classroom use, the CAP provided the school with 2 desktop flight simulators. She uses the kits and simulators primarily in her 6<sup>th</sup> grade class, but they are also available to students at other grade levels. Among these is a high school sophomore with an avid interest in getting his pilot's license. He's encouraged and supported by McKenna.

Along with the classroom benefits received by CAP's AEMs there is one that McKenna found particularly exciting, a flight in a single engine aircraft with an experienced pilot. She met Missoula's Pete Graf as the enthusiastic Civil Air Patrol CFI/CFII who would take her on the Teacher Orientation Program (TOP) flight. Pete

learned to fly years ago in Missoula and recently retired after a career that included flying many different aircraft for the U.S. Air Force and, following his military service, for Delta Airlines. Pete obviously enjoys talking aviation. On the day of their flight together, he spent a good amount of time giving McKenna a thorough background about what's involved with piloting an airplane. The orientation included time spent at the CAP airplane exploring the controls and flight instruments. The two took off from MSO and headed for Alberton, circling the school before returning. McKenna recounts: "It was so fun! A Once in a lifetime opportunity for an educator like myself!" She got a photo above the school and was also able to take the airplane controls for a bit. She found that the experience effectively bridged the gap between flying on a simulator and flying in a real aircraft.

A few weeks later, Pete visited McKenna's class in Alberton. Students were fascinated not only by his full-dress Delta Pilot's uniform but also by his recounting of all the aircraft he had flown in accumulating his over 18,000 hours of flying time.

McKenna's family lives in Milltown and includes a 2-year-old boy. She thoroughly enjoys teaching in Alberton and expects to relocate there someday. Those lucky Alberton students will certainly remember McKenna as one of their most inspiring teachers!



*These Alberton High School students are making good use of the CAP-supplied flight simulator and aspire to be pilots very soon.*  
*Photo courtesy of McKenna Akane*

If you know an educator or youth leader who might be interested in the Montana CAP AEM program click here for more information.

## Ryan Dykstra - from inquisitive youngster to accomplished aviator

Gary Matson

Three-year-old Ryan Dykstra wandered the halls at Missoula's Minuteman Aviation FBO where Art, his Dad, had just begun working as a Certified Flight Instructor. Ryan's "toys" included the wall chart device used for measuring flight distances and the flight instruction room's paraphernalia. He was fascinated by the flight instrument examples and airplane models. He "landed" the little twin-engine die-cast model on the tabletop depiction of Runway 29/12.

Ryan's first experience at the controls of an airplane was when he was just 5 or 6 years old. Art turned over the control yoke to him. Ryan pulled back or pushed forward all the way. He doesn't remember which but remembers an extreme attitude change. In response, Art calmly told him to just level off the plane and continue, which he did.

During Ryan's school years, there was a class project to make a video illustrating zero gravity. The teacher had attained a video camera and editor for student use. Ryan recruited Art to fly him, his sister Michelle, and another classmate. Each loosely held a foam ball and at the top of the "roller coaster" flight path weightlessness was achieved and captured on video.



*Art and Ryan at the controls of Minuteman's Piper Cheyenne*

That first landing! As a growing up youngster Ryan often went flying with Art, who would takeoff and land but leave cruise flight to Ryan. Over the years he gained proficiency and would make approaches to land. Art

would take over the controls before the actual landing. One day, the two were landing under what Ryan assumed was the usual arrangement. This time, though, his Dad didn't take over the controls. Ryan made his first landing! Afterwards, he recalls being at first kind of scared and a little miffed at Art for not telling him he wasn't going to help with the landing. Then he felt excited by the realization that he had just landed an airplane, and the experience is one of his fondest memories.

When Ryan was old enough, he achieved his Private Pilot Certificate with Art as Certified Flight Instructor. The process was easy for him because he had always been held to "a very high standard." He had learned to perform all maneuvers and flight tasks to Commercial Pilot Standards, which are a step more stringent than those for Private Pilot. Ryan proceeded to acquire the endorsements that broadened his capabilities including complex aircraft, high performance, tailwheel. He's had spin training and aerobatics experience.

In recent years customers of Minuteman Maintenance found Ryan working in the facility. His employment in the shop had been preceded by a season as a field truck driver for Minuteman's Single Engine Air Tankers. At the end of the season, his job performance and capabilities led him into the shop, where he assisted Minuteman's mechanics in servicing aircraft. In time, he became accomplished at performing many maintenance tasks, always reviewed by qualified mechanics.

Ryan's career goal is to become a professional helicopter pilot. He acquired experience by flying in helicopters with Art. When it became time for Ryan to get his helicopter pilot certificate, he breezed through the process. At the controls of the aircraft with Art along, he "took us off out of Missoula, flew us over to Hamilton, landed at Choice Aviation in the Jet Ranger, got out and said "Hi, I'd like to learn how to fly." He got his certificate after training at Choice and Red Eagle, in Kalispell.

He was unable to find a source in Missoula for his commercial helicopter rating so he saved up his money and went to Long Beach California where he earned his rating in a week. He trained in a new aircraft with new people and in a new, very complex airspace. He was successful despite being saturated with variables in every direction and having to meet the higher commercial performance standards.

Today, Ryan is co-pilot on a Chinook helicopter. He has a second in command type rating for both the Chinook and the Blackhawk. He's flying the Chinook in South Korea! The country's government has a contract with Billings Flying Service to evaluate the performance of the company's Chinook in its wildfire fighting. The country's

*(See "Ryan" continued on page 6)*

## EAA Young Eagles Build and Fly

Ray Aten and Gary Matson

Missoula’s MSO-based Experimental Aircraft Association (EAA) Chapter 517 has for many years conducted “Young Eagles Flights” for youth. With parental permission, youngsters are given flights by local pilots who are certified by the National EAA. This year, the Chapter’s Young Eagles leaders chose to enhance youth’s aviation experiences by launching a “Build and Fly Program.” The program involves the construction and flying of a radio-controlled, (RC) electric-powered model aircraft, a Kadet T-40. All Young Eagles participants were invited to an introductory meeting at the hangar, and twelve elected to participate in Build and Fly. They gather to work on the build project almost every Saturday morning at the Chapter hangar in MSO’s East LZs.

The Chapter purchased the build kit, consisting of balsa wood stock, laser cut ribs, other materials, and tools for constructing the aircraft. No parts were pre-assembled. Full scale drawings guide the cutting of parts, glueing, and covering of the aircraft. The covering is a plastic heat-shrinkable sheeting. Also provided with the kit is a flight simulator that replicates the performance of the RC aircraft and enables prospective pilots to learn how to fly it. The kit included an electric motor and rechargeable lithium polymer batteries to power the motor.

*(“Ryan” continued from page 5)*

existing helicopter fleet is aging and it may replace it with Chinooks.



*Art and Ryan with the Chinook*

After South Korea Ryan is looking forward to a position as a professional helicopter pilot with Missoula’s Minuteman. During a break from overseas he’s been training in the firm’s 206 Jet Ranger helicopter and on April 9<sup>th</sup> passed the FAA’s Part 135 check ride. He’ll now be able to fly professionally for scenic tours, charters, materials deliveries, and other for-hire services.

The many good learning experiences Ryan’s had growing up in Missoula are amplified by his high

Invaluable assistance with Build and Fly has been provided by members of the Big Sky Thunderbirds RC Club, Ed Lovrien, Butch Guthrie, Dave Lewis, and Dale Hovday. Ed’s young son, Kellen is helping with Build and Fly and is reputed to have the same incredible skill at piloting RCs as his Dad. The Thunderbirds are presently engaged in the construction of an RC flying field located southwest of the airport.

The youth RC pilots will not only receive training in the flight simulator but must also complete a ground school. It turns out there are lots of rules to ensure safety and airspace compliance. At first, pilot “graduates” flying the aircraft on the manual controller will be backed up by an experienced pilot using a second controller that can override theirs, if needed. The MSO community is blessed to have the dedicated EAA members and Thunderbirds volunteers that are making aviation come alive for our area youth.



*See photos next page.*



*Ryan and his helicopter crew were featured in the local news as the South Korea head of Forest Aviation Division inspected the Chinook. Ryan is a celebrated presence among this group. (from Art’s Facebook post)*

personal standards. He’s not only reliable and consistent but is also “...always striving for perfection.” He shares with the best of pilots in putting a high value on a self-examination after every flight and always striving to improve. Ryan acknowledges his good fortune in having had “...one of the best instructors in the Pacific Northwest...he’s my best friend and he’s my Dad and he always held me to a high standard.” I know my fellow MSO GA pilots all agree: It’s been great to watch him grow up here!



## Airport Master Plan moves forward

Gary Matson

Missoulians were treated on March 27<sup>th</sup> to a public open house held in the “new” MSO terminal and featuring the ongoing process of developing a master plan for the airport. Mandated by the FAA, the planning process is nearing completion and will culminate in a conceptual Airport Layout Plan for facilities that will best satisfy airport needs for the next 20 years. The last master plan was conducted in 2008 and is quite outdated.

Thanks to the successful publicity coordinated by Kathy Weber-Bates, of Starhitch Strategic Communications there was an excellent turnout for

the open house. Scott Bell is one of the Morrison-Maierle engineers principally involved in the planning. In his words, it was “...one of the best turnouts I have seen recently without a group of naysayers or negative comments. I think people were truly interested in the airport and the construction that is going on.”

Growth in MSO air traffic will continue. The number of aircraft based at MSO is expected to increase from 169 in 2022 to 230 by 2042, and the total number of operations (takeoffs and landings)

*(See “Plan” continued on page 8)*



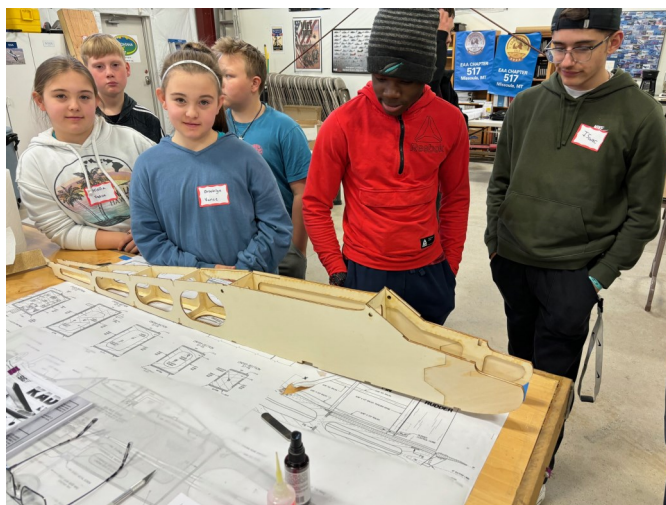
*The Build and Fly group. On the left is Ed Lovrien, President of both EAA Chapter 517 and the Thunderbirds. To Ed's left is Butch Guthrie, an advisor from the Thunderbirds, the young man in the background to Butch's left is Ed's son, Kellen.*

*MSO GA News photo.*



*: Builders are also assembling a field box for carrying tools, batteries, etc. for the RC aircraft. Third from left is Dave Lewis, an advisor from the Thunderbirds.*

*MSO GA News photo.*



*The balsa wood fuselage of the Kadet T-40 has taken shape.*

*MSO GA News photo.*

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(“Plan” continued from page 7)

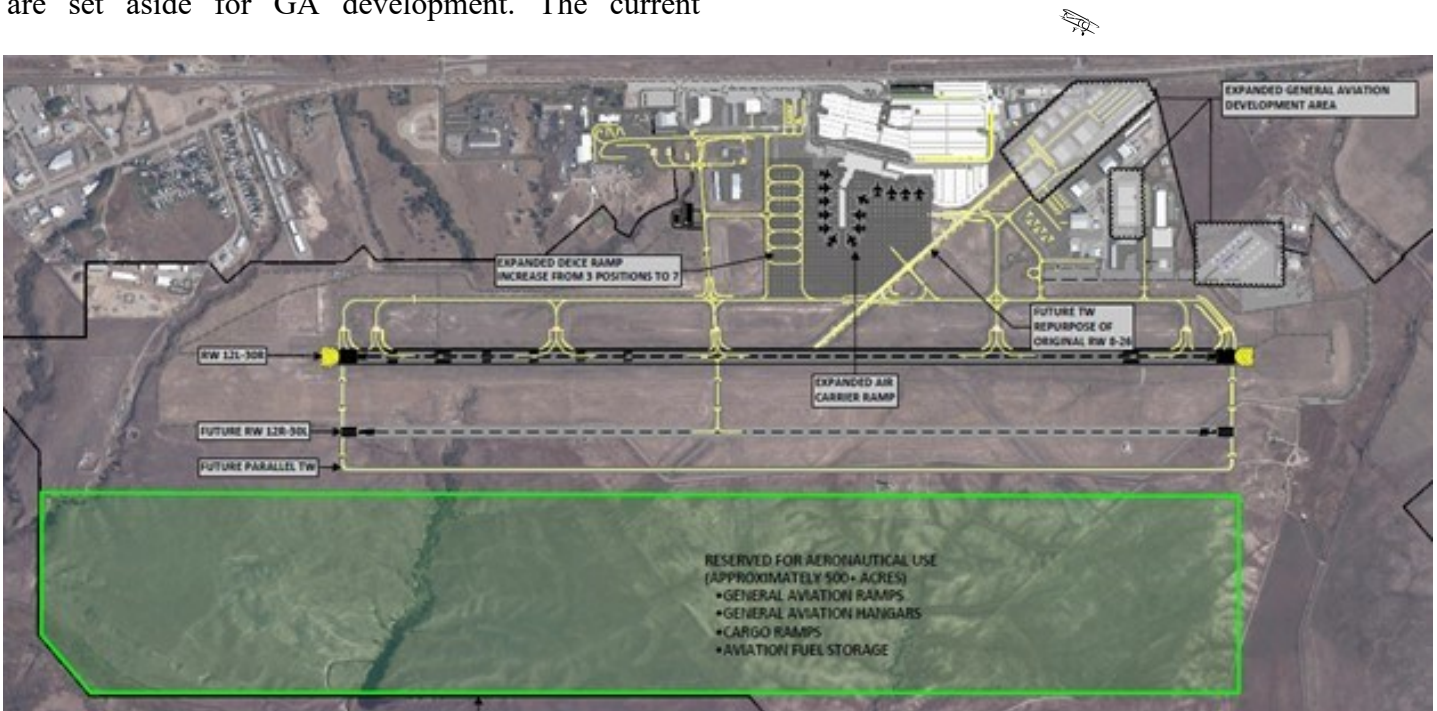
from 44,899 to 59,231.

The facilities growth will include those for airport operations and maintenance equipment and for emergency response. An additional runway, parallel to the existing Runway 12/30 is planned, along with a new full-length taxiway. Both would be north of the existing control tower. When will construction occur? That will be determined first not by the number of operations but by the mix of operation types. That is, building the new runway will be justified when the combination of slow and fast aircraft complicate operations on the one existing runway. Construction of the new runway is expected to take place in stages, beginning with one in the 5,000 ft length range and adding to the length at subsequent times.

As shown in the accompanying figure, new areas are set aside for GA development. The current

Runway 8/26, now closed for air operations, will remain available for taxi. The completed terminal will have an extended ramp offering as many as 14 jet bridges or boarding stations.

Morrison-Maierle engineers Shaun Shea and Scott Bell along with airport administration have hosted a number of airport stakeholder meetings with the goal of conducting an open and transparent process that will result in a realistic and practical conceptual plan. M-M engineer Mike Carlson has done airport history and forecasting. As of now, the planning process is about 2/3 complete. The next stage will be financial – where the financial resources will come from to consummate the plan. Planners will complete the process by providing the FAA with the Airport Layout Plan incorporating all the facilities and recommendations derived from the planning process.



The MSO airport layout includes an added parallel runway, an area set aside for general aviation hangars, an expanded passenger terminal and ramp, and land reserved for aeronautical use.

(Sorry about the small print; zoom your browser to make it readable – Ed)



**Fly the Big Sky license plates** are now available through regular county motor vehicle licensing departments. For each license purchased, EAA Chapter 517 receives \$20 to further its activities promoting aviation. The additional cost for the specialty plate with standard numbers is about \$30, and for the personalized plate about \$60. Plates can be ordered at any time without affecting the renewal cycle. Standard renewal rates apply, with the specialty plate cost being added.



# Missoula Montana Airport updates

Tim Damrow, MSO Deputy Director, and Gary Matson

## Airport Terminal

The South Concourse (Phase 1 of construction) was completed in 2022. Although it brought all the services travelers need, and within an exceptionally bright, pleasant, and energy-efficient building, there were some inconveniences that will be remedied when subsequent phases are completed.

will fund Phase 3 of the terminal. This final capstone phase is expected to be completed in 2026. It will be a relatively simple extension of the hold rooms area and will include garage space for ground servicing equipment as well as EV charging stations. Completion of the project will position the airport to meet growth for years to come.

## Good news for air travelers

After a record travel year in 2023 for the airport, 2024 is shaping up to be another record breaker. With two new airlines (Sun Country, Frontier) entering the market and several equipment upgrades by other carriers, the airport expects seat growth of up to 40% heading into summer. If you haven't booked a trip in a while, this will be a great summer to travel!

## MSO's historic beacon

For over 50 years the same beacon sat atop the original control tower at the Missoula Montana Airport to safely guide aircraft to the airport. Originally manufactured and installed by the National Airport Equipment Company in early 1962, it is estimated to have flashed its signature white/green light close to 320 million times!

The beacon was officially decommissioned during construction on the new control tower in 2012 and was finally removed during construction of the new terminal in 2022. After some quick thinking, our Airport Director thought it would be a great idea to salvage this item to serve as a reminder of its many years of service.

Today, the beacon sits in airport administration but will soon be in the observation lounge on the third floor of the terminal. The beacon will continue to bring curiosity and intrigue for airport and aviation enthusiasts for generations to come!



The new terminal construction continues in phases. Phase 1, the "South Concourse" has been completed. Work on phases 2 and 3 is underway. *Graphic by Tim Damrow.*

Construction continues on Phase 2, which is set to open in April/May 2025. This phase will include additional hold rooms, concessions, restrooms, baggage claim and rental cars and will be ADA accessible.

The airport also received word that it was the recipient of an Airport Terminal Program Grant of \$6 million which



The beacon served airport aviators for over 50 years.

MSO GA News photo.

## What did you learn from your CFI?

Gary Matson

At the invitation of Certified Flight Instructor Aaron Foster,<sup>1</sup> about 30 MSO aviators gathered in the East LZ Hangar 1, “Missoula’s Aviation Classroom,” on January 5<sup>th</sup>, 2024 for an evening roundtable discussion about learning from our CFIs. Bruce Doering started the evening off with a short video presentation by Josh Flowers, Aviation 101. This was a case study of an instructional flight that ended in a fatal crash. The CFI was disrespectful and belittling towards his student, who he characterized as being fundamentally incompetent. The instructor’s unprofessional behavior included making social media posts during the flight, which ended when he disregarded the weather display and continued the flight into an area with thunderstorms.

A fundamental observation was that CFIs must be encouraging, respectful, and professional. All pilots are “aviation ambassadors.”



*MSO CFI Aaron Foster makes a point at the discussion gathering. MSO GA News photo*

The following discussion, led by Aaron, produced valuable aviation information nuggets:

- In the event of an emergency “off-airport” landing (engine failure, weather, etc.) “The insurance company owns the airplane.” That is, the pilot’s focus during the emergency must be upon the occupants’ safety. Needless injury or fatality occurs when the focus is upon minimizing damage to the airplane during an emergency landing.
- CFIs are at their best when they have a somewhat relaxed approach with their students. Constant

criticisms and corrections by a tense, aggressive instructor are counterproductive. The student needs time to build confidence. The more “laid back” instructor giving corrections respectfully when needed is more effective. It’s also essential to not be so relaxed that serious risks to the flight occur without CFI input.

- Interesting question – can a CFI sign off a student who has done everything right? A sign-off might be more appropriate when there’s been a chance to observe an error that was effectively corrected.
- Pilots – hold yourself to high standards! Instead of letting routines lapse into complacency, set a goal to make every flight perfect and self-critique after each one.
- Go-arounds – A good reminder for students is “Power Pedal Pitch.” The power and pitch parts are intuitive but not the pedal (to compensate for left turning tendency). Praise the student who opts for a go-around. Approach every landing recognizing the possibility of a go-around.
- Preflight “one last walkaround.” The frequent distraction can cause something to be overlooked, like a gascap left off, a tow bar left on, or an oil access panel left open. Before startup, walk around the airplane for one last check.
- Three Strike Rule – Here’s from a piece written by the much-respected aviator, Richard McSpadden: “Three mental mistakes, like: forget a step in the start checklist; misunderstand a taxi instruction; or forget the cabin door or my seatbelt. Three of these is enough to indicate I’m just not mentally ready to fly.”
- Stay ahead of the airplane – The pilot must anticipate each flight task ahead and be prepared to take the steps needed to make it succeed safely and efficiently.
- Understand your airplane – Today’s single engine airplanes are stable platforms, but the pilot must have complete knowledge of their performance criteria and limitations.
- Situational awareness – know what’s going on around you, whether in a landing pattern or enroute. Look outside; be vigilant.

*(See “CFI” Continued on page 11)*

## From Dan's Desk

Dan Neuman, MSO Business Development Manager

Well, in an act that clearly demonstrates he is losing his collective reasoning ability, Gary has once again asked me to submit an article for the GA newsletter... I can't decide if he has truly descended into madness or is simply a glutton for punishment.

It kind of reminds me of being back in Kindergarten. Now you must be asking yourself... what on earth could Dan be talking about? Bear with me, I do have a point. Do you remember being that young and how much different your perspective was? Everything was a miracle and each day your eyes were opened wide to the possibilities the world presented.

I was recently reminded of this after giving a couple of Airport tours to groups of young people. Questions and comments had no limits, and their insightfulness was often mind provoking. "What

actually does it feel like to fly?" "How small is the smallest plane?" "Do Airplanes really have bellies?" "Why do they check our bags? Are they looking for snacks?" "That thing (pointing at a jet bridge)? That's an Airplane Comer Outer!"

You get the picture, it reminds me of a quote by the late great Carl Sagan "Every kid starts out as a natural-born scientist, and then we beat it out of them. A few trickle through the system with their wonder and enthusiasm for science intact."

So, when Gary continues asking me to write articles for the newsletter, I simply chalk it up to his inner natural born scientist having survived to adulthood and continuing to ask questions with an attitude of discovery and wonderment!

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*Dan and airport staff lead an airport tour of natural-born scientists. Photo courtesy of Dan Neuman*

*("CFI" Continued from page 10)*

- Three top priorities for pilots – Aviate, Navigate, Communicate
- Have good judgment. Flying an airplane's not hard. Most incidents come as a result of bad judgment.
- Weather – Become a lifelong student of weather. Besides TAFs and METARs, use your own senses to look and feel conditions. Practice estimating ceilings and visibility, confirming with reports when available. Weather's notoriously changeable and in places like backcountry airstrips there's no weather reporting.
- Crosswind – When you find one, take advantage of it to practice crosswind landings.
- Grass airstrip landings – can't simulate on paved

surfaces; train with a CFI who's familiar with backcountry flying.

- Currency vs. proficiency – Strive for proficiency. Being current doesn't make a safe, skilled pilot. Set high performance standards.
- Use full runway length – Intersection departures save a little time but full length departures provide a critical option in the event of an engine failure on takeoff.
- Your relationship with your CFI isn't compatible? Change instructors.

Aaron operates Foster Aviation, providing instruction for Private Pilot, flight reviews, backcountry, and tailwheel. [Foster Aviation \(flyfosteraviation.com\)](http://FosterAviation.com)

*Handwritten mark*

## Dick Komberec Celebration of Life

Gary Matson



The Drummond High School girl was a percussionist in the band, seated in the back row along with tuba player Dick Komberec. She noticed that his fingers “...randomly fluttered over the keys a lot...” making her wonder if “he was just playing it because he was strong enough to pack it

around when the band was marching.” These are Dick’s wife, Barbara’s recollections from their high school days together. Besides playing in the band, Dick could also be found in the school halls with a camera around his neck catching photos for the school paper. Dick was awarded by the Montana Interscholastic Editorial Association for his productive four high school years as a journalism student.

Dick’s flying began after his first business gave him a steady income. He collected garbage using a late 40s GMC truck he had converted as a teenager. He purchased A Piper Cub, took flight lessons in Missoula, and got his pilot certificate when he was 16. His second date with Barbara was in his Cub.

Dick’s first flying job was in 1965 as an instructor with Missoula Sky Flight. The combination of his work ethic, natural aptitude for flying, and his exceptional performance as an instructor caught the attention of Jack Hughes, Johnson Flying Service Chief Pilot. He was offered a pilot position and soon “...there wasn’t anything that Dick couldn’t fly.” His flying included aerial spraying with TBM Avengers, and he flew firefighting TBM and WWII A-26 air tankers. He piloted smokejumpers in DC-3s.

When Johnson Flying Service was sold in 1975 Dick was hired by Western Airlines and began a career as an airline pilot. Western was purchased by Delta in 1986. Dick retired as an International 767 Captain in 2005.

It was Dick who found the DC-3 that now graces MSO’s Museum of Mountain Flying. Bryan Douglass recounts the event in his book about Miss Montana, *Every Reason to Fail*: “In 2000 when Dick was landing a Delta flight in Memphis, he spied a row of DC-3s on the ramp across the river in West Memphis, Arkansas, and resolved to get a closer look.” On his next trip to Memphis Dick rented a car, drove to West Memphis, and found his old friend N24320 from his Johnson Flying Service days. He returned to Missoula and raised the money to purchase the aircraft. After the installation of two low-time engines, and with Dick and Rick Nash as passengers, it was flown to Missoula. Rick donated money to build a home for the DC-3. Completed in 2002, it’s now present on the airport as the Museum of Mountain Flying. Dick, Stan Cohen, and Steve Smith had founded The Museum in 1993.

Dick’s old friend, N24320 became the focus of an incredible volunteer undertaking to make the aircraft flyable in time to join others flying to Normandy for the June 2019 D-Day Anniversary. The plane was christened “Miss Montana” and adorned with name and pretty gal nose art like that on the WWII B-25 flown by Barbara Komberec’s father. In a 2023 ceremony, Governor Greg Gianforte proclaimed Miss Montana as the “Official State Airplane of Montana.” At the same ceremony, Dick was inducted into the Museum’s Hall of Fame for his lifetime commitment to preserving Montana aviation history.

Dick passed away on October 28, 2023. A scholarship account has been created in his honor. Each year, as long as there are adequate funds, the scholarship will provide one young, ambitious, hardworking youth interested in a career in aviation with financial assistance to obtain his/her private pilot certificate while attending high school. Contributions to the scholarship can be sent to the Museum of Mountain Flying, PO Box 16601, Missoula MT 59808.

See photos page 13



**Get Out and Fly!**

## Takeoff and Landing Safety Considerations

Kurt Kleiner, CFII

As we quickly approach the summer flying season, it is a good idea to review several decision-making factors that we may wish to consider before visiting some smaller airports and backcountry airstrips. When landing, our safety is mainly dependent on the following; maintaining situational awareness of other departing and arriving traffic, flying a stabilized approach at the appropriate speed, identifying the minimum safe altitude for aborting an approach or going around, landing within the first third of the runway, and maintaining aircraft control on the center of the runway during the rollout. Since we typically need more runway distance and aircraft performance to takeoff, the primary focus of this article will be on takeoff considerations.

During our primary phase of learning, we were all taught how to utilize the performance tables found in the POH or AFM to calculate takeoff distance, rate of climb, etc. The critical impact of Density Altitude (DA) on our ability to safely takeoff and climb cannot be overstated and it is frequently identified as a contributing factor in many summertime accident investigations. Performance tables should be trusted only as a general baseline since many additional factors will likely render those numbers as being overly optimistic. In safety presentations and published articles, we are often well-advised to add a 30% to 50% safety margin to our projected takeoff distance.

Unfortunately, many older aircraft and Experimental aircraft do not have published performance tables. As a minimum substitute, pilots may wish to visually measure and take notes on how much runway length is needed at various airport elevations, temperatures, and aircraft weights before visiting shorter airstrips. Here's one easy method for accomplishing this preliminary research. The standard for painted runway

centerline stripes at federally funded airports is that each dash is 120 ft. long, with 80 ft. of space in between each dash. Knowing this, we can line up slightly off-center-right next to the beginning of the first painted dash, and execute a short-field takeoff while glancing out the side window at the centerline stripes. During takeoff roll, as we arrive at the beginning of each dash, we can call out, "200, 400, 600," etc. and note the approximate point where we become airborne. A good way to measure the performance of your aircraft in high DA is to visit a higher elevation airport with a long-paved runway, such as Butte (BTM) on a hot day. The field elevation is 5,551 ft., and one of its runways is 9,000 ft. long which should provide a generous safety margin. If that goes well, you may wish to do the same at other airports with shorter paved runways such as Phillipsburg, St. Ignatius, etc. If you fly to Superior, MT or Orofino, ID you can experience an approach, landing, and takeoff in somewhat confined terrain. If you have a POH with a takeoff distance table, compare your actual takeoff distance vs. what the POH predicts. Keep a written log of your actual takeoff distances at different elevations, temperatures, and wind conditions.

Once you are comfortable knowing how your aircraft performs in high DA conditions from short-medium length paved runways, a logical next step might be to practice takeoffs and landings at some commonly used grass strips in the area such as Rock Creek, Seeley Lake, or the West Fork Lodge airstrip south of Darby, MT. It would be wise to go early in the day when it's cool, and with a light payload well below max gross weight. You will find that a grass surface will noticeably increase your required takeoff distance. For operations from a dry, mowed grass surface, many Cessna 172 and 182 POH

*(See "Safety" Continued on page 14)*

*("Photos" Continued from page 12)*



*The Missoula Montana Airport's ARFF vehicles offered a salute to Dick Komberec. MSO GA News photo*



*Neptune's honorary water drop recalled Dick's flying of air tankers for Johnson Flying Service. MSO GA News photo*

*(“Safety” Continued from page 13)*

tables have fine print that suggests adding 15% to the takeoff distance for grass surfaces. Attempting a takeoff with wet grass, or grass longer than 5 or 6 inches, or from a muddy, sandy, or snowy surface can increase takeoff distance by as much as 50%, and/or make the attempt downright impossible or dangerous. Always have an abort point pre-identified on any runway.



*Moose Creek airstrip in the Selway-Bitterroot Wilderness, Idaho, about 40 air miles west of Hamilton. Flight operations at backcountry airstrips require extra diligence to manage terrain, field conditions, and weather. MSO GA News photo.*

What about a sloped runway? How do I factor in the advantages or penalties of slope gradient? Once you know the percent “slope gradient” for a given runway, you can apply a rule of thumb which says that down-slope takeoff distance is reduced by about 5% for each 1 degree of slope gradient. However, the penalty of attempting an upslope takeoff is more significant. Your takeoff distance will increase by about 7% for each degree of up-slope gradient. There are many backcountry strips that have a dip or a hump in the runway where part of the takeoff roll is on an upslope, and part of it may be down-slope. Every airstrip is different and unique and the presence of a sloped runway often implies there is, “one way in (upslope for landing), and one-way out (downslope takeoff)” due to abruptly rising terrain on the uphill end of the strip. Shearer (2U5) in the Selway Bitterroot is one classic example that many local pilots have visited.

In similar fashion, a headwind will shorten your takeoff roll, and a tailwind will impose a significantly greater penalty. The 1979 Cessna T182 POH says you can “decrease takeoff distance by 10% for each 9 kts. of headwind” but you will “**increase** your takeoff distance by 10% for each **2 kts.** of tailwind.” The application of any rule of thumb or calculation becomes increasingly complex if you try to figure out how much tailwind is safe or acceptable on a down-slope takeoff or on an upslope landing. Although you may have plenty of

runway available for a tailwind takeoff, we must also consider that your aircraft climb gradient will be significantly degraded with any tailwind during the initial climb. “Climb gradient” refers to altitude gained over a given horizontal distance. This should not be confused with “rate of climb” measured in feet per minute of time. Your VSI might indicate a Vx rate of climb of 500 fpm, but you might only gain 300 ft. of altitude in the first mile of distance after takeoff. Many pilots have gotten into serious trouble with no way out when they successfully took off with a tailwind and then encountered rising terrain on the departure path. In most cases, you’ll want to avoid taking off from any short airstrip with a tailwind and simply wait for calm conditions.

There is yet one more invisible hazard to contend with. We cannot mathematically factor in the effects of wind interacting with nearby terrain and obstacles that create updrafts, downdrafts, turbulence, and small-scale wind shear in the takeoff and landing environment. One might be able to lift off with plenty of runway to spare, but then encounter sinking air in close proximity to rising terrain, fully committed with nowhere to go.

In summary, it would be wise to seek training from a qualified and experienced backcountry CFI instead of figuring out decision-making strategies on your own in a high-risk takeoff and landing environment. Many experienced backcountry pilots avoid takeoff and landing operations at certain airstrips if the surface wind is greater than only 5 or 6 kts., with a maximum personal limit of 10 kts. for the more



*News editor Gary Matson flew into Moose Creek in August of 2020 and there met Richard McSpadden, who was visiting backcountry airstrips in his Super Cub. McSpadden, the widely admired and respected AOPA Air Safety Institute Senior Vice President, tragically died in an airplane crash October 1, 2023. MSO GA News photo.*

forgiving longer airstrips, even with an airplane that has great performance. There is a good reason for having far more

*(See “Safety” Continued on page 15)*

## A flying adventure for Missoula CAP cadets

By Cadet Izzy Poteet

On a Saturday last fall, the Kalispell and Missoula CAP squadrons collaborated to partake in a joint excursion aboard a C-130 aircraft. Venturing near the Canadian border, the cadets embarked on a flight that encompassed Glacier National Park before returning to Missoula. This remarkable opportunity provided the cadets with a firsthand experience of aerial

navigation and a breathtaking view of the natural wonders of the region. The successful execution of this endeavor highlights the dedication and coordination of the Kalispell and Missoula squadrons in fostering a spirit of exploration and appreciation for aviation.



Missoula CAP cadets (L to R) Beacon Apuzzo, Izzy Poteet, and Isaac Poteet were among the lucky cadets flown aboard the C-130 Hercules aircraft. *MSO GA News photo*



Izzy and her brother, Isaac, flying aboard the C-130. *Photo courtesy of Izzy Poteet.*



The view out the back of the C-130 is stunning. *Photo courtesy of Izzy Poteet.*

(“Safety” Continued from page 14)  
conservative personal minimums in the backcountry or any short airstrip vs. what you might normally have for operations at MSO or GPI.

A great publication with more thorough information on this topic is “Mountain, Canyon, and Backcountry Flying” by Amy Hoover and Dick Williams.

## Aviation innovation

Gary Matson

Aviation has always inspired innovation, the pace of which has now been accelerated by the increased interest in making it cleaner and more efficient. Pages in print and online feature new and redesigned aircraft as well as cleaner ways to power them. One of the best articles I've seen is in the Washington Post, "The aviation industry is tackling a carbon emissions problem with new planes, new fuels and new concepts," by Edward Russell. The quotations given below are from Russell's story. <https://www.washingtonpost.com/technology/interactive/2024/need-get-airport-soon-you-can-take-an-air-taxi/>

Will Western Montanans soon be able to catch a ride to MSO on an electric-powered air taxi? That's expected to happen for New Yorkers before too much longer. Joby Aviation's electric powered Volocopter 2X is only one design among the several being developed by the "...dozens of firms around the world betting on eVTOLS. Their backers include some of aviation's biggest names, such as Delta Air Lines, United Airlines and Embraer."



*The Volocopter 2X electric air taxi takes off from the Downtown Manhattan Heliport for a test run along the East River on Nov. 13.*

*(Washington Post/New York Daily News/Getty Images);*

Electric powered airliners? Heart Aerospace plans to have their short route electric passenger plane operational by 2028. The airplane is quiet and there are no emissions. Heart's development has the backing of Air Canada, Saab, and United. Batteries are heavier than jet fuel so fewer passengers can be carried and only for a few hundred miles. Other electric aircraft developers are working to increase battery density, enabling by 2030 routes up to 500 miles.



*A rendering of Heart Aerospace's new 30-seat electric turboprop plane, the ES-30.*

*(Washington Post/Heart Aerospace)*

Hydrogen fuel cells can provide power for electric engines and there are no emissions. It weighs less than batteries and can power longer flights. The downside is less passenger carrying capacity because carrying the fuel supply requires more space. Another potential downside relates to how the gas is produced. Traditional methods of hydrogen production may be energy intensive and accompanied by significant carbon emissions. Clean, "Green" hydrogen can be

*(See "innovation" Continued on page 17)*

### Aviation weather cameras at Montana airports

<https://weathercams.faa.gov/map/>

Live views of weather at many Montana airports, including Glacier Park, Ferndale, Superior, Seeley Lake, Lincoln, Helena, Deer Lodge, Butte, Missoula, Hamilton, and others.



## Neptune Aviation - Aviation Services for the Montana GA Community

Kevin Condit, Neptune Aviation Marketing Manager

Born from the work and experience on our own aircraft, Neptune has continued to expand into the aviation services area. This experience makes us a unique company in the aviation industry. As both customers and service providers, we understand collaboration, attention to detail, and workflow systems needed to get things right – in every phase of our business.

### General Aviation Maintenance

Neptune Aviation is an FAA Part 145 Certified Repair Station (FAA CRS NI6R011N) offering world-class maintenance services to individual, business, charter, and government aircraft owners. We have experience in major repairs and alterations, plus aircraft modifications with on-staff DER support. With Neptune, we have everything under one roof. Every process in Neptune's shop has been refined through years of experience and we employ some of the best people in the business. Our goal is to deliver quality services that minimize costs and downtime.

### Comprehensive Machine Shop Services

Neptune has unique machine shop capability and experience to match. Our full-service machine shop can make or repair

custom parts to high standards. We provide boring, drilling, milling, tapping, turning, and reaming services using both CNC and conventional methods. Our services include prototype development, short-run production, welding, fabrication, and machining. We can provide custom and one-off solutions to meet specific requirements.



### Non-Destructive Testing

Neptune offers a full range of non-destructive testing services. From magnetic particle and fluorescent penetrant inspections to sophisticated ultrasonic and eddy current examinations, we can meet your needs. We provide efficient, safe, compliant, and economical NDT services with fast turnaround times, mobile

(See "Neptune" Continued on page 18)

(*"Innovation Continued from page 16*)

produced by renewable energy. The firm Universal Hydrogen, backed by American Airlines, JetBlue, and others, "...began testing its fuel cells on a 40-seat plane last year in Moses Lake, Wash. Flight tests have since moved to Mojave, Calif., with an aim to earn certification in 2026."



Universal Hydrogen's 40-seat plane flies over the Mojave Desert. (Washington Post/Universal Hydrogen)



The aviation firm JetZero has received an airworthiness certificate from the FAA clearing test flights for its 12.5% scaled blended wing demonstrator aircraft. JetZero describes its design as "ultra-efficient," offering unprecedented performance. Entry into service is expected by 2030. Aviation Week graphic

How soon will aircraft like these be sharing airspace at MSO? As the sage said, "Only time will tell."

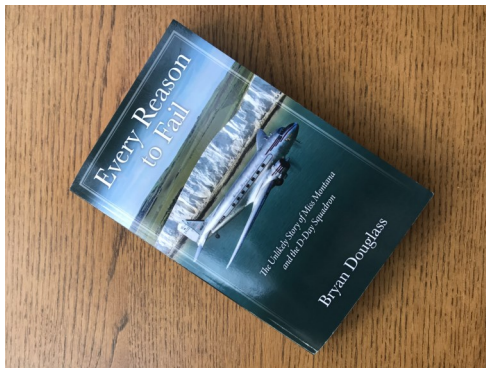
*Handwritten mark*

## Airport weather and conditions by phone and radio

- ATIS by phone 406-549-2989, when you're away from a radio during hours of tower operation
- ASOS (Automated Surface Observing System). 406-728-3743. MSO weather 24/7.
- After the tower closes, ASOS weather is available by radio at 126.65.
- Talk to a real person. 406-329-4840. The staff at our local National Weather Service office is always glad to visit with pilots about weather and can often clarify uncertainties in a forecast.

Get Out and Fly!

### Every Reason to Fail



Bryan Douglass' book about the epic adventure of Miss Montana to Normandy is absolutely a "must read" for aviators, especially those of us sharing a base with the historic DC-3. Bryan's story creates in the reader a deep appreciation for a number of things: The success of a near-impossible effort to make the aircraft flyable in less than a year's time and starting with zero resources; the rarely seen volunteer energy that showed up again and again to do the work; the rich relationships among the Miss Montana crew that flourished because of their sharing of an epic adventure; the physical and performance challenges involved in participating with many DC-3s never before together as a group and called upon to skillfully execute a "one-shot-only" D-Day Seventy Fifth Anniversary performance. The historical accounts included in the book, Mann Gulch, WWII, the Berlin

Airlift, give added value. ***Every Reason to Fail*** can be purchased on Amazon. Bryan will sell an autographed copy for \$20. Contact him at [bryan@everyreasonstofail.com](mailto:bryan@everyreasonstofail.com)

(*"Neptune"* Continued from page 17)



solutions, and local pickup and delivery.

### Avionics

Neptune Aviation Services can install, repair, and update most avionics systems flying today. In addition to our status as a certified installer for JP Instruments, BendixKing, Trig Avionics, and uAvionix, Neptune is an authorized Garmin dealer. We offer Garmin's line of industry-leading aviation supplies and solutions, including GPS navigation systems, transponders, advanced displays, and other aviation products. Neptune can also deliver comprehensive Garmin services, including system upgrades, technical support and maintenance, aircraft painting, and inspections, making it a one-stop shop for the aviation industry. Having avionics systems in our own fleet, we have the experience to manage aircraft conversions with minimal downtime.

## Aviation license plates



MPA plate

EAA plate



Montanans are greatly blessed to have two special license plates that boost general aviation. Request one of them for each of your vehicles next time your renewal comes up. The Montana Pilot Association plate raises funds to establish an effective "endowment" which will fund at least two flight training or mechanic scholarships of \$4000 every year. MPA President Mike Vivion notes just how important scholarships are given the increasing need for pilots and aviation mechanics. Mike says "we have a LOT of very generous folks in Montana. This is just a very painless way for someone to make a difference, without even having to think about it, year after year."

Missoula's EAA Chapter 517 also has a specialty plate. Funds provide aviation scholarships and pay the expenses needed to keep the Chapter's hangar viable as a place to promote general aviation. The Chapter sponsors Young Eagles events at its monthly breakfast. Young people interested in aviation can go for a ride with one of the Chapter's pilots and also can sharpen their piloting skills in the hangar's flight simulator.



## Civil Air Patrol Aerospace Education Member Program

By Major Steven C. Heffel, CAP, Director of Aerospace Education, Billings, MT

The Civil Air Patrol (CAP) is well known for its cadet program, which is the aerospace education oriented after-school equivalent of high school Air Force Junior ROTC and is officially recognized by the USAF. However, most people are not aware of CAP's Aerospace Education Member (AEM) Program, which is the backbone of CAP's *external* aerospace education program. The AEM Program is a special category of CAP's volunteer membership, with about 5,900 AEMs nationwide, including 24 AEMs statewide, in Montana. CAP provides AEM Program participants with free STEM kits (Science, Technology, Engineering, and Math) and curricula for classrooms covering the subjects of aviation, astronautics (i.e., space travel), astronomy, and cyber technology.

Some of the exciting benefits of being a Civil Air Patrol AEM include the opportunity to take a Teacher Orientation Program (TOP) Flight in a CAP airplane (Cessna 182), with an experienced CAP pilot, at a local airport (*see related story*). AEMs that are lucky enough to take a TOP Flight with a CAP certified flight instructor (CFI) are eligible to receive professional development credit. AEMs that participate in CAP's teacher workshops, either in-person or online, are also eligible to receive professional development credit.

CAP offers two curriculum programs, the Aerospace Connections in Education (ACE) Program for grades K-6 and the Aerospace Education eXcellence (AEX) Program for grades K-6 and 7-12. During the 2023-2024 school year, 533 schools in 48 states are participating in CAP's ACE Program, including McKinley Elementary

School in Billings and Alberton Middle School in Alberton. Davey Elementary School in Havre and Alberton Middle School are also both participating in the AEX Program this year, along with 1,448 other schools, nationwide. Six additional Montana schools and one children's museum are participating in CAP's free Aerospace Education STEM Kit Program this year. CAP currently offers 26 free STEM kits to its AEMs. Grade 5-8 classrooms, enrolled in the ACE Program or AEX Program, are also eligible for CAP's Adopt-A-Classroom Program, provided there is a local CAP squadron in their county. Seven Montana counties have local CAP squadrons, including Missoula County.

The AEM Program is available to professional K-12 educators, informal educators (e.g., museum docents and librarians), after-school youth program leaders (e.g., Boy Scouts, Girl Scouts, 4-H Clubs, Boys & Girls Clubs, etc.), and homeschoolers. Adult individuals from any of these categories can join CAP's AEM Program and take full advantage of all AEM Program benefits, including TOP Flights. About one-third of the AEMs in Montana are either homeschoolers or part of a homeschool co-op. Other participants include Butte's Boy Scout Troop #1615 and the Wise Wonders Children's Museum in Billings. There is a one-time \$35 registration fee to join the AEM Program and annual renewals are free.

For more information about CAP's AEM Program, contact: Susan Mallett, National HQ – Civil Air Patrol, Aerospace Education Division, Maxwell AFB, Alabama [ae@capnhq.gov](mailto:ae@capnhq.gov)



*MSO GA News thanks McKenna Akane, teacher at Alberton School; Ray Aten, EAA Young Eagles Coordinator; Kevin Condit, Neptune Marketing Manager; Tim Damrow, Missoula Montana Airport Deputy Director; Larry Depute, MSO pilot; Ryan Dykstra, MSO pilot; Aaron Foster, MSO CFI; Pete Graf, MSO CAP pilot and instructor; Kurt Kleiner, CFI; Barbara Komberec; Dan Neuman, MSO Business Development Manager; Izzy Poteet, MSO CAP Squadron; Shaun Shea, Morrison-Mairle Engineers; for their contributions to this “newsletter” (news magazine!).*

If you have something interesting to write about we'd like to put it in the newsletter and share it with the Missoula aviation community! Long (about 500 words), short, funny, serious, whatever. The News is published intermittently. Interested in contributing? Contact the editor (see below).

MSO GA NEWS is published in Missoula Montana by Missoula International Airport.

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## MISSOULA AVIATION WEB SITES

Ace Aviation: <https://www.aceaviationmso.com/>

Aerotronics: <http://www.aerotronics.com/>

Flying drones safely: <http://knowbeforeyoufly.org/>

Heli-1: <https://heli-1.com/>

Homestead Helicopters: <http://www.homesteadhelicopters.com/>

Minuteman Aviation: <https://www.minutemanaviation.net/>

Missoula Montana Airport: <http://www.flymissoula.com>

Nat'l Museum of Forest Service History: <http://www.forestservicemuseum.org/>

Neptune Aviation: <http://www.neptuneaviation.com>

Northstar Jet: <https://neptuneaviation.com/fixed-based-operations/>



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