



Teachers Take Off With Aviation Education

By: Lt Col Kaye Ebelt, CAP, MTWG/AE - Published in Civil Air Patrol eNewsletter March-April 2012

Eleven Montana Teachers from Laurel, Bozeman, Belgrade, Cut Bank, Lambert, Missoula, Valier, and Willow Creek, took part in the "Take off with Aviation Education" workshop sponsored by the Montana Aeronautics Division. Also attending were students from the Montana Aviation Mechanic School's Aircraft and Powerplant Training Program in Helena.

Lead Instructors David Hoerner and Kaye Ebelt guided the teachers through the basics of aerodynamics with help from several Montana aviation experts. Bill Burkland presented "Aerodynamics 101", Luke Humphrey gave a practical demonstration of Newton's 3rd Law of Motion using foam gliders and Jeanne MacPherson gave a presentation called "Yaw, Pitch, and Roll from the perspective of an aerobatic pilot."

The teachers then put their new aviation knowledge into practice. Each was assigned an aviation station to prepare for students. Attending this year were 4th grade students from Emily Dickinson Elementary School in Bozeman. These students recently won an essay contest to name NASA's lunar satellites. They came up with the names "Ebb" and "Flow." The students rotated through several stations. FAA Representative Jeff Simmons instructed them how to take off using a flight simulator. Other stations included conducting wind tunnel tests, flying the world's record holding paper airplane, taking off with Delta balsa wood airplanes, simulating a final approach using voice activated headsets to make radio calls, learning about famous aviators and their airplanes, participating in an aviation Jeopardy game, and more.

On Friday afternoon, the teachers were paired with licensed pilots and learned how to prepare a cross-country flight from Missoula to Glacier. Next was a visit from Big Sky Density Flyers, the first Montana



Lead instructors Kaye Ebelt and Dave Hoerner.

teachers to be selected to fly in NASA's microgravity experiments. Team members, Carol Morgan, Sandy Murphy, and Lt Col Kaye Ebelt, Montana Wing Director of Aerospace Education, shared a student-created video showing their physics experiment and their team in microgravity.

David Hoerner held a search & rescue presentation highlighting how Montana uses trained pilots around the state to assist with search and rescue. He displayed several slides showing an aerial view of crash sites.

The workshop's final day was devoted to preparing the teachers for their flights. Pete Graff and David Hoerner gave a thorough briefing on the traffic pattern, radio calls, emergency locator beacons, and preflight inspection. The day culminated with teacher flights. Teachers took to the sky and were smiling when they landed. Thank you to pilots Pete Graff, David Hoerner and Greg Brainerd.

A big thanks also to Montana Aeronautics for inspiring educators and students by providing this amazing opportunity to learn, apply, and experience flight!



"Take off with Aviation Education" Participants and Instructors

Administrator's Column

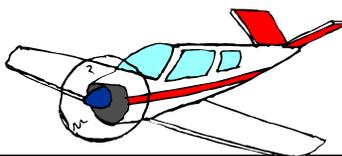
Charitable flights: Included in the FAA reauthorization is a provision that allows a pilot to accept reimbursement from a volunteer pilot organization for the fuel costs associated with a flight that provides transportation for an individual or organ for medical purposes, making pilots who fly charitable medical flights happy. The bill also provides the FAA regulate minimum safety standards for pilots receiving reimbursement. The pilots that provide this service are a unique, caring group and are appreciated by all.

Huerta appointed: Interim Federal Aviation Administration Chief Michael Huerta was appointed to a full five-year term. Huerta assumed the helm of the FAA in December following the resignation of Randy Babbitt. Huerta served as assistant FAA administrator under Babbitt.

Check out these maps: Have you ever wondered what percent of accidents are caused by fuel starvation or a pilot attempting VFR flight into IMC? The AOPA Air Safety Institute's interactive accident maps show just that. This is interesting information that we all can learn from. The maps can be found at http://www.aopa.org/asf/ntsb/maps.cfm?WT.mc_id=120330epilot&WT.mc_sect=sap

Forest Service planning rule: Recreational aviation and backcountry strips in US Forest Service lands must now be considered by Forest Service planner in their aviation plans. The new definition of recreation opportunities includes "non-motorized, motorized, developed, and dispersed recreation on land, water, and in the air." The rule provides guidance for every national forest plan and planner in the United States. The Recreational Aviation Foundation, Idaho Aviation Association and AOPA worked to educate Forest Service officials on the value of aviation and the legitimacy of it as a recreational use of national forest land. Now it must be considered, just as all-terrain vehicles, boats, and other recreational motorized and non-motorized vehicles. Thanks to these entities for their work in preserving the recreational aviation opportunities that we all enjoy.

Recent chatter: The Montana Pilots Association Vigilante Hangar at its recent hangar meeting enjoyed a presentation about the B-17 training that Montana participated in during WWII. After more than 65 years you can still see one of the practice ("bulls eye") bombing sites located in central Montana. Only a few Pattern Bombing Ranges were offered; one in Lewistown and was used for B-17 bombing practice runs in Montana and the only one still visible on the terrain today. The range is located approximately 12 miles northeast of Winnett at the following decimal minute coordinates: 47 10'08.18" N x 108 25'32.67 W. The Lewistown Pattern Bombing Range was included in the National Register of Historic Places in 2010. Next time you are in the area take a look at this piece of our country's history that significantly supported our efforts in World War II.



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Calendar of Events

June 9 – Havre Airport Fly In Breakfast – Begins at 7:00 a.m. For further information contact Darren Heutis at (406) 945-1861 or darren.huestis@nuwaveservices.com.

June 9 – 8th Annual Fly In at Lewistown Airport; 7:00 a.m. to noon. MPA sourdough pancake breakfast. Antique, Warbird, Experimental and Sport Airplanes. Held in conjunction with Central Montana Flywheelers Exhibition. For further information contact Jerry Moline at (406) 350-3264.

June 13-17 – MAAA HOP 2012; Seeley Lake, Superior, Sandpoint, Yakima, Hood River, Ontario, Nampa, Twin Bridges. For further information contact Dennis Mecklenburg at (406) 581-1377.

June 16-17 – Father’s Day Fly In – 9th Annual Father’s Day fly in. Static Display, games for kids, young eagle rides, potluck BBQ dinner, games for pilots, pancake breakfast, and so much more. For further information contact Kendra Horn at (406) 684-5335 or kendra@rubyvalleyaviation.com, or visit www.rubyvalleyaviation.com.

June 21-22 – Aviation Career Exploration (ACE) Academy for Montana students Grades 9-12 (ages 14-18). For further information contact Kelly Dimick at kdimick@mt.gov or Dave Hoerner at dhoerner@mt.gov or (406) 444-2506. Applications are available at www.mdt.mt.gov/aviation. See page 7 of this month’s newsletter for further information.

July 4 – Townsend 4th of July Fiesta Fly In breakfast, we feed you, don’t fool you. For further information contact Neil Salmi at (406) 980-0544 or neilsalmi@yahoo.com.

July 7 – 2nd Annual Big Sky Air Race. This is a Sport Air Racing League (SARL) sanctioned event. This will be an open course; 125 NM race consisting of several turn points. This course starts and ends at Three Forks. This event includes a fly in with food, music, landing and flour bombing competitions. For further information contact Kevin Danz at (406) 431-8009 or Kevin.Danz@gmail.com or Cody Folkvord at (406) 439-4179 or headwatersfs@gmail.com. More information is available at www.BigSkyAirwarce.com.

July 20-25 – Organizing a group of pilots to fly their planes to Oshkosh together. For further information contact Kevin Danz at (406) 431-8009 or Kevin.Danz@gmail.com.

August 2-4 – Montana Antique Aircraft Association (MAAA) annual Three Forks Fly In. Flour bombing and spot landing contests. Free camping on the airport. For further information contact Pat Green at greenrrg@aol.com or Ken Flikkema at (406) 480-6207; Bob Green at (406) 539-7830 or Tim Linn at (406) 451-5897.

August 3-5 - “Splash In 2012” sponsored by the Glacier Pilots EAA Chapter 102 Kalispell. Seaplanes, music, a magic weekend for visiting aircraft, water or land. Contact Ry Keller at forestkeller@montanasky.us. Camping, food, and other activities, Musicians and music fans contact Bill Montgomery at bill@stillwaterlanding.com

August 12 – Lions Club Drive In, Fly In breakfast Hysham Airport beginning at 7:00 a.m., Model Airplane Show. For further information contact Bob Miller at (406) 342-5252.

Aviation Maintenance Technician Day

In May of 2005, Montana Governor Brian Schweitzer issued a Governor’s Citation designating every May 24th as Aviation Maintenance Technician (AMT) Day. AMT Day celebrates the birth date of Charles E. Taylor, the world’s first Aviation Mechanic of powered flight and the machinist for the Wright Brothers.

Charles was born on May 24, 1868, on a farm in Cerro Gordo, Illinois. After moving to Dayton, Ohio, and working at several jobs, he went to work for the Wright brothers on June 15, 1901, for \$18 a week. He started doing routine repairs on bicycles, which freed up the brothers to pursue their experiments with gliders.

He built the Wrights’ first wind tunnel and machined a lot of the parts used on their gliders. During the winter of 1902, using crudely sketched drawings, he began building an engine, which by the Wrights’ calculations needed to produce 8 to 9 brake horsepower and weigh no more than 180 pounds. He finished the 4-cylinder engine in six weeks. In February of 1903, the engine was placed on a test stand. It produced 12 horsepower at full throttle. The Aviation Maintenance business began and Charles Taylor became the first aircraft mechanic.

Charles was one of those many people who worked quietly in the background, but made an enormous impact on aviation. His craftsmanship, enthusiasm, and quiet genius, earned him a place in aviation history when the Wright brothers successfully flew their airplane at Kitty Hawk, North Carolina, on December 17, 1903. Without Charles Taylor, the Wright brothers would not have made that historic flight 108 years ago.

The Wright brothers depended on the talents of Charles Taylor. Montana aviators depend on the talents of the states’ hard working, conscientious, aircraft maintenance technicians. The Federal Aviation Administration has issued 1163 certificate to Montana aviation mechanics with Airframe and Powerplant ratings. Of those, 215 hold Inspection Authorizations. There are also 69 holders of Repairman Certificates working in Montana’s certificated Repair Stations.

Take the time to recognize each and every one of the dedicated Montana Aviation Maintenance Technicians who help make the United States aviation system the safest in the world.

Aviation Conference Another Success Story



Addison Pemberton entertained the crowd with an enthralling story on the restoration of a Boeing 40C.



Friday's luncheon speaker was Larry Chambers of Dillon. Larry's presentation "A Lifetime in the Air – Doug Parrott" touched on the life and times of pilot Doug Parrott of Roundup. Pictured are Larry & Doug with Doug's sons, daughter in law and his wife Shirley. Doug was also awarded "Pilot of the Year" from Montana Pilots Association.



Rich Broberg (l) of Omaha Airplane Supply has attended the conference as an Exhibitor for 28 years – since the beginning. Here he receives his exhibitor award from Breezy Burlison of City Service.



City Service Valcon Phillips 66 Aviation are annual sponsors of the Thursday evening Exhibitor Awards. Pictured (l-r) is Breezy Burlison of City Service, Debbie Alke, MDT Aeronautics Division and Ed Croymans of City Service. We certainly appreciate their awesome support!



The static display was enjoyed by all. After the display all headed to the newly remodeled and newly named "Bozeman Yellowstone International Airport" for dinner and entertainment.



Steve Vold (r) of Aerotronics has been a proud sponsor and exhibitor for 28 years and counting, thanks Steve! This conference would not be possible without the great support of our exhibitors and sponsors.



The Koch family of Helena was selected for several of the scholarships administered each year. Pictured (l-r) is Hunter & Kristina Koch recipients of the Montana Pilots Association Flight Training scholarship and Alex Koch recipient of the Mountain Airdance Scholarship. Also pictured is proud husband & father Robert Koch. Congrats!



Airport of the year went to Livingston Airport for their dedication in maintaining a first class facility for all to enjoy.



Former Aeronautics Administrator Mike Ferguson and current Administrator Debbie Alke always enjoy having a chance to catch up at the conference. Mike now attends as an exhibitor and representative of AOPA.



Motivational speaker Jessica Cox gave an amazing talk at the closing banquet. She has led a remarkable life and has not allowed being born without arms to stop her from doing anything, including becoming a pilot. Pictured here with Rosie Smith who has been coming to the conference with her family since she was a little girl and is now attending Montana State University in Bozeman.



Larry Taylor of Cross Petroleum in Billings (pictured with Patty Kautz, MDT Aeronautics) has been exhibiting for 13 years and always brings the most delicious ice cream for all to enjoy. Thanks to Larry and Greg Cross for all you do!

Goodbye all:

Well just a few short months ago Sue and I set out from Vermont to travel to Montana and start a new adventure with me being the Airport Manager at WYS. I now find myself getting ready to head back to the east coast having accepted a senior level airport operations position at the JFK (John F. Kennedy) Airport. I was not planning on leaving Montana so soon, but this once in a life time opportunity is really a dream come true for me and I just could not pass it up.

The new job will find me responsible for the airports FAR 139 certification program, airport emergency planning, airport snow removal, special operations, construction management and probably a host of other duties that I am clueless about. Having worked at mostly smaller airports over the last 19 years, I am definitely looking forward to working at a BIG airport and JFK meets that definition. JFK handles over 46 million passengers annually making it the busiest international airport in the US, the 6th busiest airport in the US in terms of all passengers and the 14th busiest airport in the world

Sue and I have come to the conclusion that Montanans are the friendliest people in the USA and that south east Montana has some of the most spectacular mountains in the world, we will miss both!

Thank you all for being so kind!

Don and Sue DeGraw



We wish Don nothing but the best at his new position at JFK Airport, we know he'll do well; he was a great asset at the Yellowstone Airport the short time he was there.

Hoerner's Corner - Moose Attack

In a few short months the snow will melt and Montana pilots will be flying into the back country grassy runways.

Aviators migrate to these airstrips like geese heading north after a long winter in the south. It's time to leave the effects of the long winter and replace them with a new adventure of mountain winds and camp fire smoke. This type of flying renews the soul and clears the mind.

As I back taxied at Shafer Meadows a giant bull moose wandered out of the trees and stared at the airplane. It was the first trip of the day hauling raft gear and people from Kalispell City Airport.

The shadows were disappearing as the day overwhelmed the night and for my passengers seeing the big moose was an added bonus. Excitement grew as everyone pointed and stared at the big black moose with massive horns.

Steve Hughes was the pilot in the Cessna 206 that was loaded to the ceiling with gear and about two miles behind us. As we stepped out of the airplane the distant sound of the airplane approaching bounced off the canyon walls.

As Steve started downwind the moose effortlessly jumped over the four foot fence and walked out toward the runway. I ran to the 185, put on the headset, turned the radio on and said, "Steve there's a moose standing by the timber on the south side of the runway." Steve replied, "Ok, I'll look for him."

I relaxed slightly and walked back toward the gate in the fence and my passengers. Steve was turning a tight base to final as I looked back at the moose that was now running full speed down the fence line.

The 206 was on short final when the 1200 pound animal turned to go across the runway. If everything remained constant, the airplane and moose would collide about midway down the airstrip.

I thought to myself as I sprinted back toward my airplane, "Why hadn't Steve gone around?"

The plane slide by on the ground as Steve braked hard on the wet grass. The moose was at a full gallop and racing to cross in front of the airplane. I held my breath; the wing was only a few feet from hitting the giant's antlers. In an instant the moose change direction and headed back into the trees.

"Why didn't you go around?" I asked angrily. "I didn't see the moose until I was on the ground." Steve replied.

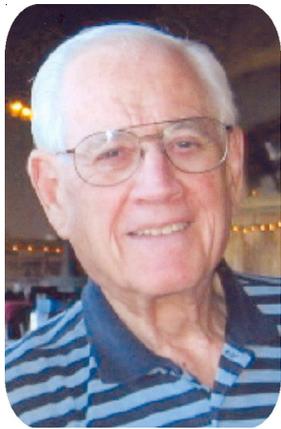
This wasn't Steve's fault; I should have told him to circle until we were sure the moose wouldn't go out onto the runway.

Year's earlier one of my pilots had hit a deer in the head with the right horizontal stabilizer. The little doe had almost taken it completely off the airplane. I could imagine the damage a moose would do an airplane.

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In Memory of Col. T. Mark Radcliffe

Published in *Helena Independent Record* on April 6, 2012



Col. T. Mark Radcliffe fought his last battle on April 1, 2012, wrapped in the love and care given by his family, the wonderful dedicated staff at Aspen Gardens, and Hospice of St. Peter's.

Mark was born Sept. 6, 1918, in Shiprock, N.M., the first of three boys, to Marcus and Evelyn Radcliffe. He spent his early years in New Mexico and Salt Lake City, attended the National Defense School at the University of Utah and was ordered into active duty in 1941.

Mark was stationed at Pearl Harbor when the Japanese attacked. After the attack, he was sent to Officer Candidate School in Fort Benning, Ga. In 1942 Mark was interviewed and selected for duty with the First Special Service Force at Fort William Henry Harrison in Helena as company executive officer. He was trained as a paratrooper and a member of the elite Devil's Brigade. He was assigned to the European Theater and participated in all the major force combat missions. Mark commanded the troops that captured and secured the enemy on Mount Magio in Italy, was captured and wounded, and led the first troops into Rome to secure their liberation. He was awarded the Silver Star, six Bronze Stars, three Army Commendation Medals, the Purple Heart with three clusters, the combat infantry badge, parachute wings, commendation for superior combat operations, and an official commendation

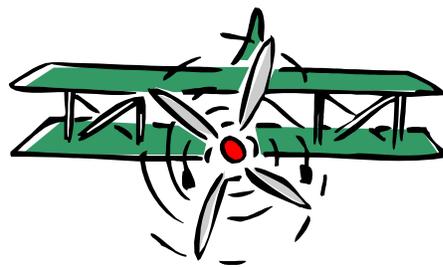
for leading the first combat patrol into the City of Rome. He holds battle credits in North Africa, the South Pacific, Asiatic Pacific, Naples, Foggia, Rome Arno, Corsica, Southern France, Franco Italian border, Rheinland and Norway. After returning from the war in 1944, Mark continued his military career by joining the Army Reserve as Deputy Commander, then becoming Commander of the Helena unit. He served in many capacities, retiring in 1978 as a Full Colonel.

While training in Helena, Mark met the love of his life, Edith Kathleen Bauer, at a USO dance the beautiful girl across the room. He wrote his mother that he had met the girl he was going to marry. Two months later on Sept. 3, 1942, they were married at St. Paul's Methodist Church.

Mark was a professional engineer and started his career at McKinnon and Decker Construction Co. in Helena after the war. He was Deputy Director of the Montana Aeronautics Commission and retired as Deputy Director of the Federal Department of Housing and Urban Development.

Mark designed the First Special Service Force Monument at Memorial Park and the Cenotaph that stands behind it. He was instrumental in the development of the Montana Military Museum at Fort Harrison and after retirement worked to secure the designation of Fort Harrison as a high altitude training facility.

Mark was preceded in death by his parents and his youngest brother Robert Radcliffe. He is survived by his wife of almost 70 years, Edith Radcliffe of Helena; a daughter, Carolyn (Chuck) Doering of Helena; and a son, Bob (Jeannette) Radcliffe of Bozeman; grandchildren, Annette (Randy) McDowell of Bozeman, Lynne (John) Armbruster of Snohomish, Wash., and Mark Radcliffe Jr. (Anna) of Belgrade; step-grandchildren, Stephanie Borash of West Yellowstone and Suzie Hockel of Bozeman. He has eight great-grandchildren. He is also survived by his brother, Bruce Radcliffe of Tempe, Ariz.; and several nieces and nephews.



Moose Attack, continued

Animals come to the back country airstrips in the spring to eat the new tender grass and for some unknown reason always want to race in front of an airplane to get to the other side.

Early in the morning or late in the evening is the most likely time to see animals out on the runway. Over the years I've had deer showed up right as I was touching down. I would add power and climb over the animal and then touch back down. In the Cessna 185 that was possible, but in most heavily loaded airplanes, getting back in the air might not happen.

Make sure the landing zone is clear and be ready to go around immediately. Scan the landing area and also in the timber around the strip.

Hitting a big moose, elk, or even a small deer will ruin a weekend vacation. Be careful in the back country; help is a long way away.

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Register your 406 ELT Immediately

It is the responsibility of the MDT Aeronautics Division to locate lost airplanes or activated Emergency Locator Transmitters. We are unique in all the states with regards to search and rescue (SAR) for aviation related incidences.

Almost all other states pass on the responsibility to the military or government agencies. Because of red tape, sometimes reaction by these agencies for a missing aircraft can crawl along at a snail's pace.

At Aeronautics we train for aviation related search and rescue and have 8 search coordinators, (someone is on call 24 hours a day, 7 days a week). We also have 6 pilots and two airplanes for to SAR. One aircraft has a Becker installed that is dedicated to finding activated 121.5 ELTs.

Spread out around the state are 14 district search and rescue coordinators, 397 volunteer pilots and 241 volunteer aircrafts that are ready to go at a minutes notice.

When an aircraft is missing, time is at a premium. We take our responsibility very seriously and saving lives is our mission.

Sometime in the future all aircraft will have the new and improved 406 ELT. At this time only a small percentage of Montana registered aircrafts have the new transmitter.

The old 121.5 ELT is not being monitored by satellites. The only one listening to that frequency is fellow pilots. Don't bet you or your passenger's lives that someone will hear your activated 121.5 ELT.

In the last few months Aeronautics has received calls from AFRCC with notification that satellites are picking up a 406 emergency locator transmission. But, because the transmitters hadn't been registered, they have no idea who they belong to.

We immediately start making calls to district search coordinators and pilots to help look for the transmitter. We have to treat each notification as a possible search. In both of these cases the activation switch was turned on accidentally. Without ownership information a lot of effort, time, and resources are called into a search.

If you buy a 406 ELT, register it immediately, it only takes a few minutes. If you happen to have an aircraft emergency it will take moments to know who the 406 ELT belongs to and their contact information. Having this information could save your life.