



Mountain Search Pilot Clinic Held in Helena

On September 11, 12 and 13, Montana's volunteer pilots gathered at the MDT Aeronautics Division, in Helena, to participate in the 31st Montana search pilot clinic. The intention of this clinic is to train volunteer pilots to safely and efficiently conduct a search for a downed aircraft in mountainous terrain. Not only do the 24 volunteer pilots learn the search techniques, they also receive advanced emergency locator ground and field training and survival tactics from the Emergency Response International (ERI).

The opening speakers of this year's clinic were, Sheriff Leo Dutton, discussing air search cooperation among agencies, Floyd Roney, of Kannad ELT, covering the 406 ELT capabilities and Jeanne MacPherson talking about the MDT Aeronautics Division's air search procedures, flight operations and presenting the observer program.

The keynote speaker was Art Dkystra of Missoula. Art presented an informative discussion on mountain flying techniques including, some pretty great graphics of landing and taking off at a backcountry airstrip at different times of the day complete with day lighting and shadow effects.



Art Dkystra of Missoula presented an informative discussion on mountain flying techniques.

The flight instructors for this year's clinic were, Tim Dwyer, Wendy Bye, Mike Campbell, Art Dykstra, Bill Werner and Jeanne MacPherson. Each of the 24 pilots attending receives two hours of flight instruction. The dual flight instruction covered contour search techniques, marking the location of the downed aircraft and over the top and down air search techniques.

An essential part of search and rescue is the Search and Rescue Satellite Aided Tracking (SARSAT) System and detecting and locating emergency locator beacon transmitters (ELT), to lead and instruct this year's SARSAT/ ELT training both in ground school and field tracking were Peter Graf, Ray Sanders and Hugh Wilkins.

The clinic would not be complete without "survival sense for pilots". We were most fortunate to have survival experts and instructors, Skip and Brett Stoffel from the Emergency Response Institute (ERI), Skip and Brett offer the clinic participants some hands on survival skills with the opportunity to further their training at MDT's annual winter survival.

We at MDT Aeronautics Division want to thank all of the volunteers that are prepared to go whenever the call comes. MDT Aeronautics' air search program depends on you.



Pilots Doug Monger of Helena (center) and John Myers of Big Fork (right) debrief with instructor Jeanne MacPherson after their flight in the Elkhorn mountains. More photos on page 5 of the newsletter.

Administrator's Column

Great Tribute to a Great Aviator: If you haven't had the opportunity to read the September/October issue of Montana Magazine, make it a point to pick up a copy and read "70 Years in the Sky." A great story about Ed Musselman. Ed is 90 years old, flies his 1968 red and white Citabria at least one a week, if weather allows, off his strip on the Echo Canyon Ranch, north of Lewistown. He enrolled in the civilian pilot training program in California in the late 1930s and then trained civilian and military pilots until 1943 when he began flying for Western Airlines, where he retired as a senior pilot in 1979. Ed received the Wright Brothers Master Pilot Award from the Federal Aviation Administration a few years ago which recognized his professionalism, expertise and 30,000+ hours and 50 years of accident-free flying. Congratulations Ed!

Notice of Comment Period: The Lewis and Clark National Forest- Rocky Mountain Ranger District is proposing a maintenance fee of \$10 per night at the Benchmark Airstrip (3U7) – Van De Riet Memorial Pilot's Campground. The decision has not been made yet and your comments are important. The comment period extends through December 1st. We will meet with the President of the Montana Pilots' Association and the ranger to discuss this issue and the airstrip in the next few months. Comments should be sent to: Karen Horn, Rocky Mountain Ranger District, khorn@fs.fed.us, telephone 406-466-5341 Ext. 131.

Customs Issue: Many pilots that fly internationally have been notified by Customs and Border Protection (CBP) that 2010 decals are now available for purchase and it is time to renew for next year. BUT remember, until January 1, 2010, the ONLY decal recognized by CBP is the 2009 decal. If you renew and purchase a 2010 decal, do not remove the 2009 decal or affix to your aircraft until January 1st. If you do not have a decal and wish to purchase one, and will be travelling before January 1, 2010 — to be in compliance you MUST purchase a 2009 decal, even though there are only a few months left in 2009. Confusing? Absolutely, check out www.cbp.gov for more information.

Reauthorization: The President has signed a three month FAA funding extension passed by the House and Senate. This is the seventh extension in the last two years. More than 30 aviation stakeholders signed a joint letter to members of the US Senate recently pleading for passage of a multi-year reauthorization bill with hopes that they will act before year end. The Senate Finance Committee has been engrossed with health care reform and must consider the tax portion of the Senate FAA bill before it can move forward.

United Announcement: Gallatin Field Airport has announced that United Airlines will begin seasonal daily nonstop service to United's hub at San Francisco beginning December 17. Saturday only service last summer and winter proved to be very popular and factored into United's decision to make this winter's service daily. Gallatin Field is the only Montana airport to offer non-stop service to San Francisco.

Congratulations to Rocky Mountain College: The Bachelor of Science degrees in aviation managements and aeronautical science at Rocky Mountain College have recently received accreditation from the Aviation Accreditation Board International (AABI). See full article on page 7 of the newsletter.



Montana and the Sky

Department of Transportation
Brian Schweitzer, Governor
Jim Lynch, Director

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Telephone - (406) 444-2506
Fax - (406) 444-2519
P.O. Box 200507
Helena, MT 59620-0507
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Debbie K. Alke, Administrator

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Calendar of Events

October 24, 2009 – AOM meeting, 2630 Airport Road, Helena; 10 a.m. – 12 p.m. For further information, phone Patty Kautz at (406) 444-9580.

November 14, 2009 - Open House at Rocky Mountain College Aviation Program in Billings. Meet the people, learn about the program, go on a free flight. Learn how to prepare for a career in aviation. Call Dan Hargrove, director of Aviation, at (406) 657-1060 to make your reservation.

January 15 -17, 2010 – Winter Survival Clinic, Helena. For further information, phone Jeanne MacPherson at (406) 444-9568 or email jemacpherson@mt.gov.

January 20-21, 2010 – Aeronautics Board Meeting, Helena. Loan and Grant allocations. For further information contact Patty Kautz (406) 444-9580 or email pkautz@mt.gov.

February 12-13, 2010 – Flight Instructor Refresher Clinic, Helena. For further information, phone Jeanne MacPherson at (406) 444-9568 or email jemacpherson@mt.gov.

March 4-6, 2010 – Montana Aviation Conference, Hilton Garden Inn, Missoula. For further information, phone (406) 444-9580 or pkautz@mt.gov.

March 19, 2010 - Open House at Rocky Mountain College Aviation Program in Billings. Meet the people, learn about the program, go on a free flight. Learn how to prepare for a career in aviation. Call Dan Hargrove, director of Aviation, at (406) 657-1060 to make your reservation.

NASAO Elects Officers

Members of the National Association of State Aviation Officials (NASAO) elected new officers for 2010 at their annual convention and tradeshow in Tucson, Arizona earlier this month.

Debbie Alke, Administrator, Montana Department of Transportation Aeronautics Division, was elected Secretary of the Board of Directors. Alke has worked in the department since 1989 and became administrator in 2001. She currently serves as chairwoman of the NASAO Air Service Committee and has assisted NASAO with participation in the Airport Cooperative Research Program.

The National Association of State Aviation Officials is one of the most senior aviation organizations in the United States, predating even the Federal Aviation Administration's predecessor, the Civil Aeronautics Authority. Since its founding in 1931 the association has represented the men and women, in state government aviation agencies, who serve the public interest in the states, Guam and Puerto Rico. These highly skilled professionals are full partners with the federal government in the development and maintenance of the safest and most efficient aviation system in the world. They organize, promote, and fund a wide variety of aviation programs across the nation.

Congratulations Debbie!



Airport of the Year Nominations Requested

Are you often heard telling your friends that your airport is better than theirs? Do you feel an insatiable need to brag about your airport? Do you have dreams picturing your airport manager standing atop a three tiered podium with Olympic theme music bellowing in the background? If so, why don't you nominate your favorite airport for our annual "Airport of the Year" award? To nominate an airport, simply send us your nomination with an explanation of why you think your airport is the airport of the year. Nominations can be made by anyone on behalf of any Montana airport, can be as short or lengthy as you wish and will be accepted through the end of December 2009. MDT Aeronautics will collect and review all information and the winner will be selected and notified. Formal public recognition and an award will be given to the airport representatives during the Montana Aviation Conference awards banquet in Missoula March 4–6. Nominations can be sent to any of the following: **MAIL:** MDT Aeronautics Division, attn: Jim Greil, P.O. Box 200507, Helena, MT 59620-0507 **EMAIL:** jgreil@mt.gov. **FAX:** 406-444-2519.

MTCAA Holds Fall Conference

Mike Rogan of MDT Aeronautics Division attended the second annual Montana Community Airport Association (MTCAA) fall conference on September 19, 2009. There was a good group of people in attendance from all parts of Montana. The conference got underway with the Chairman of MTCAA, Bailey Egan giving an overview of what they would like to accomplish with the conference and what MTCAA is all about, helping small community airports in the state of Montana. Mike Rogan was up next giving a very informative presentation on troubleshooting and maintenance of airport lighting systems. Gary Gates with the Helena FAA Airport District Office explained how the Airport Improvement Program worked and Grant Assurances. David Ketchum with the Washington State Community Airport Association (WSCAA) was up next. David is Bailey Egan's counterpart and he acted as moderator for a roundtable discussion concerning airport rules, regulations and minimum standards. Helping out David were Craig Canfield, an engineer with KLJ, and Page Gough, Hamilton airport manager. AOPA representative Mike Ferguson was also present during the roundtable adding lots of good information to the discussion. Wrapping up the day's events was John Twedt with Century Construction out of Lewistown, discussing some of the history of paving and what is required today by the FAA. Tony Bean, MDT Yellowstone Airport manager gave a nighttime presentation on what it took to prepare for the arrival of Air Force One. If you are interested in finding out more about MTCAA please visit their website at www.mtcaa.org.



Mike Rogan MDT Aeronautics talked to the group about troubleshooting and maintenance of airport lighting systems.



MTCAA Chairman, Bailey Egan kicked off the conference.

Cromwell Dixon Monument Rededicated

On October 6, 2009, a small group of individuals gathered at Morrison Park, in Helena, for the rededication of the historic Cromwell Dixon bronze plaque and monument. The plaque, which shows it's nearly 100 year weathered condition, sits in a location so when standing at the monument and looking directly west, you will see a view of the skyline where Dixon crossed the Continental Divide.

The monument is a large granite block that was donated by the former Kain Granite Company. It was originally placed at the Lewis & Clark Fairgrounds in October 1912. Just one year after Cromwell Dixon made history by flying from the Lewis & Clark Fairgrounds to a site near Blossberg just over the Continental Divide on September 30, 1911. The monument was later relocated to the Helena Airport just north of the "Old Terminal". It remained there for several years until the demolishing of the old terminal in 2006, at which time, the monument was safely stored near the Airport Maintenance building, until its final relocation at Morrison Park.

When in Helena stop by Morrison Park located at the southwest corner of the Helena Airport, on Airport Road, and look at the historic Cromwell Dixon plaque and monument.



More MSPC Activities



Tim Dwyer of Havre (left) was a new instructor at this year's clinic; here he goes over Montana air search techniques with flight instructor Rick Burger of Helena.



Skip and Brett Stoffel from the Emergency Response Institute (ERI) taught survival skills.



Pilot Doug Monger of Helena and Instructor Bill Werner of Columbia Falls get ready to fly.



ELT instructor's extraordinaire (l-r) Hugh Wilkins, Great Falls; Ray Sanders, Kalispell and Peter Graf, Missoula.

Deadline Quickly Approaching for Changes in 2010 Airport Directory

Any changes to the Montana Airport Directory need to be submitted to the MDT Aeronautics Division by **October 30, 2009**. Changes can be directed to Max Murphy at (406) 444-9581 or email mmurphy@mt.gov. Thanks to those of you that have already sent in changes. Accuracy on airports is very helpful to safe flying in our beautiful state.

MDT attempts to provide accommodations for any known disability that may interfere with a person participating in any service, program or activity of the Department. Alternative accessible formats of this information will be provided upon request. For further information call (406) 444-6331 or TTY (406) 444-7696. MDT produces 2,200 copies of this public document at an estimated cost of 39 cents each, for a total cost of \$858. This includes \$465 for postage.

New Interior Shop Opens in Billings

A new aircraft interior shop, Aerointeriors has recently opened on the west end of the Billings Airport. For further information contact owner Bob Lang at (406) 256-7640; bob@aerointeriors.com or visit his website at www.aerointeriors.com.

Scholarship Opportunities

Montana is very fortunate to have many generous individuals and organizations that believe in promoting aviation by offering monetary assistance to qualified persons. The Aeronautics Division assists in administering some of these scholarships and encourages participation. The scholarships are offered to a Montanan to help defray costs of education (i.e., flight instruction, A&P, ect.) and will be presented during the 2010 Montana Aviation Conference in Missoula. Awarding of the scholarships will be based on a letter explaining the reasons for applying, future career goals, past aviation experience, if any, and any outstanding achievements. **The same letter can be submitted but applicant must submit one copy addressed to each individual scholarship they are applying for.** Letters of application **must** include a **mailing address and daytime phone number.** If you are selected to receive one of the scholarships your photo will appear in the 2010 Montana Aviation Conference Program, **please include a photo with your applications for this purpose (only one photo necessary).** Letters should be mailed to: Montana Aeronautics Division, PO Box 200507, Helena, MT 59620-0507 or call (406) 444-2506 for further information. **Letters must be postmarked on or before January 8, 2010.**

A Love of Aviation (ALOA) Scholarship – An anonymous donor established this scholarship of \$250 in 1997.

AOM Flight Training Scholarship – AOM has established this \$500 scholarship to financially assist a student pilot in obtaining their private pilot certificate.

Blue Goose First Generation Flight Scholarship – This \$250 scholarship is awarded to a first generation pilot to assist with flight training. This scholarship is designed to assist a person who has a love of aviation, yet had limited exposure to aviation, someone from a non-aviation background/family.

Harold Hamm Scholarship – Harold and Zola Hamm were the anonymous donors that established the first \$250 A Love of Aviation (ALOA) Scholarship in 1993. With the passing of Harold on September 1, 2006, Zola decided to rename the scholarship the “Harold Hamm Scholarship” in honor of her husband of 19 years. Harold had an extremely strong passion for aviation. Together he and Zola completed two airplane projects: the restoration of a J-3 Piper Cub, and an experimental RV-6 aircraft. In 2008 Zola graciously increased the amount of the Harold Hamm Scholarship to \$500.

Montana Antique Aircraft Association (MAAA) Scholarship – MAAA offers this \$500 scholarship to help defray the costs of flight instruction.

Montana Pilots Association Flight Training Award - This scholarship is open to a person who has a considerable interest in aviation. The \$750 scholarship is to be used for flight training.

Montana Pilots Association Junior Pilot Award – This recipient is chosen for outstanding interest in aviation, citizenship within their community and demonstrated academic achievement. The recipient must have soloed and be actively involved in flight training. This is a \$750 scholarship.

Morrison Aviation Appreciation Scholarship – Jeff Morrison, retired former owner of Morrison Flying Service in Helena has established the \$500 scholarship as a token of appreciation to the aviation community.

Mountain Air Dance Flight Training Scholarship One: Jeanne MacPherson and Bill Gallea offer this \$750 scholarship to a person with a huge interest in aviation; this scholarship would be used for flight training of any type.

Mountain Air Dance Flight Training Scholarship Two: Jeanne MacPherson and Bill Gallea offer this \$750 scholarship to an active pilot who desires to pursue advanced training, such as tailwheel endorsement, mountain flying, aerobatics, or a higher rating.

Parrott Family Scholarship – The Parrott Family offers this \$1,000 scholarship to be used over a one-year period for pilot training programs for students enrolled in the Rocky Mountain College (RMC) aviation program. The funds may be used for tuition in the RMC aviation program, and/or flight training expenses leading to a Private, Commercial, or Flight Instructor Certificate, and may include Instrument and Multiengine simulator training, and the purchase of aviation related materials and related supplies.

Rocky Mountain College Aviation Program Accredited by International Board

The Aviation Accreditation Board International (AABI) has accredited the Bachelor of Science degrees in aviation management and in aeronautical science at Rocky Mountain College in Billings.

AABI congratulated RMC for its commitment to quality aviation education, with an accreditation process that took two years and involved numerous reports and evaluations. There are only 26 aeronautical science programs and 31 aviation management programs worldwide accredited by AABI.

“This accreditation is a distinction of excellence as demonstrated by the quality of our faculty, academic demands of instruction and flight preparation. Our program mission is to educate and train individuals to be professionals and leaders in the aviation industry and this validates that we are accomplishing those goals,” said RMC President Michael Mace.

“This is terrific news for our program. We offer Bachelor of Science degrees in aeronautical science (professional pilot) and in aviation management and both were accredited,” said Dan Hargrove, Director of Aviation at Rocky. “This makes students’ education more valuable and confirms that a student can get an outstanding aviation education while enjoying all of the advantages of our small college.”

AABI is committed to its role as the world’s leader in the advancement of aviation accreditation. Accreditation assures students and prospective employers that an educational degree program has met stringent industry standards of quality. For more information about AABI visit <http://www.aabi.aero>. For more information about RMC’s aviation program, visit www.rocky.edu, aviation.

Montana Weather, Flying in Colder Seasons

How’s the weather? A common question, but the response generates a lot of interest from pilots and others whose plans are impacted by the weather. The forecast is of utmost importance for those persons planning to fly, particularly in the fall and winter months in Montana. Fall in Montana brings quick changes in the attributes of the lower level of our atmosphere called the troposphere. The troposphere comes from the Greek word “tropos” which means “to turn” or “mix”. The troposphere is the layer of the atmosphere from the earth’s surface up to the tropopause. This is where most of our weather developments occur.

Jet streams are fast-flowing narrow currents of air that generally flow from west to east at our latitude. Though jet streams are located in the tropopause, approximately six to nine miles above the earth’s surface, they are created from temperature variances at the earth’s surface. Each hemisphere has a polar jet and a subtropical jet which form between the cooler air mass and the warmer air mass. As air cools in our hemisphere during the fall and winter months, the polar jet stream becomes more dramatic and moves to our latitude.

Under the jet stream in the troposphere the higher altitudes of air is compressed creating more condensation of moisture. This is noticeable on the western side of our state as upper-level faster flowing air prevents the lower-level moisture-laden air from rising over the mountains. This can cause inversions and dew point change, which converts moisture into clouds or fog. This often results in IFR flight conditions and moisture.

The eastern side of our state enjoys other weather phenomena. As air moves over the mountains it is compressed even further, as there is less space between the tropopause and the mountain tops. The air mass cools as it is compressed over the mountains and gains back a great deal of heat when its water vapor converts into water. Additional heat is made by fusion of ice crystals of snow. This heat really becomes evident on the ground when the air descends off the mountains and expands over the open valley behind the mountainous terrain. These are commonly known as Chinook winds. Areas of Montana have seen Chinook winds over 100 mph as the tightly compressed air at the mountain summits rush out, to fill a larger area of the valleys below. Winds can directly impact flight conditions with regards to landings and take-offs.

This article has just skimmed a fraction of weather changes that come with the changes in seasons. Hopefully this will spark further study of wind and weather to create a safer and more enjoyable flying experience. Fall and winter views of nature from the air can be beautiful across the Big Sky Country. Enjoy them by planning appropriately for the weather.

Aeronautics Division
Montana Department of Transportation
2630 Airport Road
PO Box 200507
Helena, Montana 59620-0507

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Supplemental Oxygen for your Pets

Aircraft owners know the advantages of flying at higher altitudes when traveling to far-off destinations. They also know they will need supplemental oxygen for themselves and their passengers. But what about their pets?

More and more pilots are taking their family pets on vacations and business trips. They often note that their dog will fall asleep during the trip. "Then when we arrive, the dog sometimes acts lethargic, walks sideways, and generally doesn't act right for about an hour, then they are just fine," they add.

All of these symptoms are short-term side effects of hypoxia. Pilots are aware of what hypoxia can do to them, including headaches, dizziness, shortness of breath, blurred vision, and mental confusion. Most of these effects are short term and a person or pet can recover. But what about the long-term effects of hypoxia?

This was a major concern of Kent and Lori Carter, owners of Precision Grinding and 4 Paws Aviation in Warsaw, Indiana. The couple, who own a Cessna Turbo Centurion, fly with their two male Brussels Griffon, Cody and Moe, all the time for business and pleasure at altitudes where oxygen is required.

After reading an article that said pilots should not fly over 5,000 feet with short nose dogs, the couple came up with the idea for an oxygen delivery hood for their dogs.

After three years of research and development, the final product is available to the public.

"4 Paws Aviation has done research with several volunteer animals," Lori Carter says. "Our test results have shown animals start decreasing blood oxygen levels starting at 8,000 feet and a significant decrease at 10,000 feet and above. We recommend oxygen use at 10,000 feet and above for your pets, lower if the owner thinks it is necessary. Since our hood unit uses constant flow oxygen, we recommend about 60% of the flow rate for humans for large dogs. This has produced a blood oxygen level in the middle to upper 90 percentile. With oxygen the animals are alert and responsive. Without oxygen they have been lethargic, not responsive, and have labored breathing. These are signs of hypoxia. According to veterinarians, some of the long-term effects of hypoxia are brain damage, blindness, congestive heart failure, and even death."

The oxygen hoods come in five sizes, small to XX-Large. Custom colors and sizes are available too. The hoods are available at 4PawsAviation.com or AeroMedix.com.