

## First Class Upgrades

### MSO Has a New Deputy Director

By Gary Matson

“It feels a little bit like drinking from a fire hydrant some days!” That’s Greg Phillips’ comment about his new position at the Airport. There are so many things to learn: Airport equipment, procedures, airlines, security facilities and procedures. Those of us who are having the pleasure of getting to know Greg, though, have not the barest shadow of doubt that he will master these tasks as fully and quickly as he has so many others. After all, this guy not only flew helicopters, he flew Cobras!

This West Point Graduate followed in his father’s footsteps as an Army Aviator. Besides the Cobra, he flew the Huey and OH

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Missoula Airport's new Deputy Director; Bend, Oregon airport photo in the background.

### Airport Unveils New “Smart” Runway

By Chris Hart

Missoula International Airport’s main runway is back in action following this summer’s massive \$6 million Runway 11-29 Reconstruction Project. However, if you thought this was just a simple repaving project, you should take another look. The original runway, built in 1938 and last rehabilitated 15 years ago, has been replaced with 30,000 tons of asphalt and brand new 21<sup>st</sup> century technology that includes high-tech airfield lighting and navigation systems, weather data processors, and a new pilot-controlled lighting decoder.

In conjunction with the pavement rehabilitation, airport officials decided this would be the perfect time to give the 9,501 foot-long runway a complete lighting and electrical system overhaul. Outdated lights, cranky signs, and old wiring were removed and replaced with some of the most technologically advanced equipment available on the market today. The updated lighting system includes new runway end identifier lights, high-intensity runway edge lights, flush-mounted in-pavement lights, new direction and location signs, distance-remaining signs, energy efficient lighting transformers, and miles of new underground electrical wiring.

Two new state-of-the-art runway end identifier lights, or REIL’s, replace older units that had been in operation since the 1960’s. The new lights, built by DME Corporation, house the electronics and strobe light in a single weather tight enclosure. “We’re one of the first airports in the country to use these new style lights”, said Airport Operations Supervisor Dennis Chudy. The REIL lights provide positive identification of the runway threshold by producing bright synchronized flashes that are easily visible to pilots while on final approach to Missoula.

The runway’s new location and direction signs have a

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### Important!

### GA Hangar builders/renters meeting

- Thursday, December 13<sup>th</sup>, 7 PM, Airport Conference Room

Anyone interested in hangar building at Missoula needs to attend this meeting if at all possible, whether your interest is to own for yourself, own and lease to others, or lease without owning. **This is an important meeting for two reasons:** 1) An accurate count of individuals who want to build hangars is important for the Airport Master Plan Update process, just underway; 2) The Airport expects to make land available for hangar building this summer, under terms favorable to GA pilots. At this meeting we will discuss these terms and potential costs to you to develop a hangar. **If you cannot attend the meeting and have input or would like to get on the hangar builder list, please contact Greg Phillips, Deputy Director (728-4381; GregP@flymissoula.com).**

## Airport Master Plan (AMP) Process Begun

By Gary Matson

The airport planning staff of CH2MHill conducted a kickoff on Friday, November 16<sup>th</sup>, for the Missoula International Airport Master Plan Update. John van Woensel is CH2MHill's Project Manager. Deputy Director Greg Phillips, will be the Project Manager for the Airport. The Master Plan process is mandated by the FAA, which has approval authority over the Plan's forecast and airport layout elements. Attending the kickoff were Airport stakeholders and representatives of the Missoula community serving on the Study Resource Committee (SRC). Forrest Gue, Chris Holmes, Kristen Schloemer, and Gary Matson represented FBO and General Aviation interests.

The AMP will take a fresh look at the aviation needs of the Missoula Airport over the next 20 years. The most recent Master Plan was completed in 1996 and is outdated. The process will include an update of the Airport Layout Plan (ALP), which projects locations for airport facilities and developments. The last ALP was completed in 2004.

The process will utilize an "Upfront Concept Approach", which will be big-picture only. Five-year plans, offering greater detail, will follow later on. The entire AMP process is expected to take 18 months.

Top priorities for the AMP are: 1) The General Aviation (GA) Plan; 2) Terminal Expansion Plan; 3) Long-term runway needs. The need for the GA plan is underscored by the scheduled relocation of hangars now in use east of Minuteman. The relocation is necessitated by the need to expand parking at the airport, and the designated place is the current location hangars in use, including the widely celebrated "ghetto hangars" (these were moved, years ago, from the former Hale Field location near the

present day Sentinel High School).

What can General Aviation pilots expect from the process? Among the results that will affect us will be an evaluation of needed GA facilities and site locations for those that appear to be supported by demand. There will be public input opportunities, and I will keep GA pilots in the information loop through our e-mail list and the GA newsletter. There will not be a lot of time for us to interact with the process: A concept plan for General Aviation, including site locations for GA hangars, will be completed in January, 2008. More details will be forthcoming at the next SRC meeting in mid December.

Among some of the interesting things we learned at the kickoff meeting was the change in the fleet of aircraft utilizing the Airport. In just 7 years, Regional Jets have replaced Narrow Body Jets (737 and A-320) and now are approximately half of the fleet. Turboprop use has remained relatively constant at nearly 40 percent, with narrow bodies last at less than 10%.

Also of particular interest was the traffic threshold of 110,000 operations that would indicate the need to plan a parallel runway 29/11. A generous forecast estimates that this number may be reached by the year 2025, suggesting that additional runway capacity will be needed toward the end of the planning period.

Runway 25/07 will also figure in the Plan. There is no indication that the runway will be abandoned. Instead, options to reconfigure it are being evaluated (shift the rwy 25 threshold southwest, away from conflict with residences to the northeast and add a corresponding length at the departure end).


Stay tuned. You'll soon be hearing more about the Airport Master Plan and its relationship to General Aviation in Missoula.

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### Montana Airway Beacons

Missoula pilot Gary Weyermann helps coordinate GA fly outs of interest to local pilots. *Contact Gary if you'd like to be included in the list to receive his GA fly out notices: gweyermann@msn.com.* Gary, Steve Rossiter, Terry Miles (with co-pilot Kay Bennett) and Jim Younkin are among those enjoying recent night flight experiences to rediscover Montana's Airway Beacons.

From one of Gary's reports: "The Beacons we see flashing on the mountain tops in western Montana were part of a National Airway System of 1,550 lights along 18,000 miles of airways flown by early day pilots flying airmail at night. There are only 14 Airway Beacons left in service, all in Montana and maintained by the Montana Aeronautics Commission."

**Editor's Choice!!!** Go to the EAA Chapter 517 web site, Newsletters, and view the "Airway Beacon Report", by an Embry Riddle Aeronautical University student. The pilot of the 1918 inaugural airmail flight got lost. The beacon system was subsequently built to guide airmail pilots. 

#### Mailed MSO GA News available only by request

This issue is the last that will be mailed to large numbers of recipients. In an effort to conserve funds, newsletters will be mailed by request only.

***If you'd like to continue to receive it by mail, please send a note to Gary Matson, PO Box 308, Milltown MT 59851 (best) or call Gary at 370-6584 (2<sup>nd</sup> best).***

***If you're not receiving notice of the newsletters by e-mail and want to be notified in the future, please contact Gary: gjmatson@montana.com.***

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convenient feature airport maintenance personnel will find particularly useful...an “OFF” switch. Prior to the installation of the new lighted signs, workers were required to turn off the electrical power to the airport’s entire network of signs just to service one individual unit. The new Lumacurve signs include a switch that allows each unit to be powered down individually for maintenance without affecting the operation of the airport’s other signs.

Missoula residents are all too familiar with the starring role Mother Nature plays when it comes to aircraft operations. Rain, snow, ice and fog have a way of disrupting or even canceling scheduled air carrier flights. Now, thanks to a new runway weather information system, Missoula air traffic controllers and airport personnel have access to cutting edge technology to help keep one step ahead. A new system of weather data processors and pavement sensors provide Runway 11-29 with a rudimentary artificial intelligence and the ability to communicate its current status to computer monitors located in the control tower and other key airfield operation centers. Two runway processor units, or RPU’s, collect atmospheric information, including wind speed and direction, humidity, dew point, temperature, and precipitation. At the same time, five surface-mounted pavement sensors talk to the RPU’s to provide asphalt temperatures. Because the surface temperature of the runway is strongly affected by soil conditions, a sixth sensor measures temperatures 16 inches underground to determine frost depth which can be used for pavement forecasting.

While the new system cannot prevent weather induced delays or disruptions to air carrier flights, the RPU’s and pavement sensors provide valuable information for time-critical operations



Chris Hart photo

*Dennis Chudy, MSO Airport Operations Supervisor, talks to Missoulian photographer Tom Bauer about the runway project. Dennis kept the public and Airport staff informed with tours at all hours of the day and night.*

at MSO, such as whether or not the runway’s wet surface is about to turn into a dangerous layer of ice, or how to effectively



**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.

### EAA Chapter 517 news

Chapter officers for 2008 were elected at the October meeting: President – Don Lorenzen, Vice President – Ed Lovrien, Secretary – Layre Parkins, Treasurer – Sherry Rossiter. Frank Tremper continues to serve as the EAA Newsletter Editor, and Gary Weyermann as the Young Eagles Coordinator. *The Chapter’s web site has a wealth of information, including its newsletters (address on Page. 6).*

manage snow removal operations. “This new system will even tell us the ideal concentration of liquid chemical deicer to use”, said Chudy. A third RPU will be coming online soon which will provide data that can be used to assist with the airport’s fog mitigation program during the winter months.

One of the last pieces of equipment yet to be installed is the new pilot controlled lighting receiver decoder that will replace the airport’s existing unit. The receiver is designed to give pilots direct unassisted air to ground control of MSO’s lighting systems after the control tower closes for the night. When the receiver detects a series of radio keys from an aircraft, the airfield lighting system will activate to the selected intensity. The lighting system will remain illuminated at the selected intensity for a 15-minute interval, after which time the system will automatically shut down. While this type of system has been in operation at MSO for years, the new decoder will be able to control the intensity levels of the new runway end identifier lights, a capability the old system lacked.

A major part of the runway project involved picking up and moving the instrument landing system localizer antenna and electronics building out of the runway protection zone to a new location 700 feet away. Prior to moving the massive array, it was decided to extend the length of the antenna’s new concrete foundation in anticipation of a much larger antenna system that

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58 Jet Ranger. As a civilian, he flew mostly C172s and C182s during his years of visiting airports for the FAA's Airport Division. When he wins the lottery, he wants to get a helicopter for accessing those remote fishing spots, a Cirrus, Columbia, or Epic LT for cross country flying, and a Cessna 195 just for the fun flying and sound of the radial engine. It's good to have dreams!

Greg's family includes 4 children, a junior at the U of Oregon (go Ducks!), a junior at Sentinel High, a Hellgate middle school student, and a daughter who resides in Leavenworth, Washington. The Sentinel student aspires to the Air Force Academy, where he would follow three uncles and an aunt who are Academy graduates.

Greg's previous position was Airport Manager at Bend, Oregon, where he served for the past three years. BDN is a General Aviation airport with a single, 5005 ft runway, 55,000 annual operations, 215 based aircraft, 150 tenants, 2 aircraft manufacturers (Columbia and Epic), and 1 glider manufacturer. He describes his responsibilities there as "Chief Cook and Bottle Washer." When not called upon to sweep FOD off the runway, he wrote grants for FAA funding, handled public relations, and marketed the airport.

Missoula's airport is like Bend's in many ways. The annual operations volume is similar, although Bend's traffic is solely General Aviation. The towns themselves are alike, abounding with outside recreational opportunities and natural beauty. Both places have been "discovered" and are experiencing rapid growth. Bend is the site of major retail outlets, such as Costco, that draw from a widely surrounding area. Bend Airport's arrivals carry visitors on business, recreational, and shopping trips.

When Greg heard about the Deputy Director's position at Missoula, he had some questions: Is the airport growing? Are there significant Airport projects ahead? Will the staff laugh at my jokes? (actually, he didn't ask that one, but is known for spreading humor) Besides a good staff, does the Airport enjoy good support from tenants and airport users, from the airlines, and from the community at large. All these questions were

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may come online at some point in the future. In addition to all of the new technological improvements, the airport also repaved taxiways A1 and A4, installed two new lighted windsocks, moved over 400,000 cubic yards of earth, installed new airfield vehicle traffic signs, and built a new service road around the entire airport to allow improved access to security fencing and the Runway 11 approach lighting system. In October, the airport closed the runway during the middle of the night for several weeks so that work crews could cut grooves in the new asphalt to improve water and ice runoff from the runway's surface. The new grooved surface replaces the porous friction course (PFC) system that was used on the old runway. Finally, the runway was

answered in the affirmative, and all the good things have been proven to be true.

Although the Deputy Director position is not a new one at MSO, it has not been filled for a number of years. Greg describes his role as a close partnership with Cris Jensen, the Director. Although Cris has the ultimate responsibility, he and Greg will share various supervisory tasks. Greg's primary responsibilities will be coordinating the just-underway Airport Master Plan and engaging with development opportunities at the Airport: Land uses; potential industrial and commercial developments on Airport land, GA development. Greg identifies on-airport industrial uses as a key asset for today's airports, providing an important supplementary revenue stream.

Greg sees the Airport's biggest challenge right now as "getting a good, useful Airport Master Plan so we can plan the projects for the future. We know we need to build a new tower, fix the parking lot both for guests and employees, and develop solutions for GA. Those are hot points. If we do those things in the absence of a systematic master plan, it will be folly." Let's go, Greg! We're going to enjoy working with you!



Full length view of the reconstructed Runway 29.

painted with miles of new white stripes, touchdown zone markers, threshold stripes, and the familiar numbers 11 and 29.

Although the Runway 11-29 Reconstruction Project temporarily disrupted air travel in and out of the Garden City, the response from the public towards the new runway has been favorable. "It's very smooth, no more bumps", remarked a business traveler returning to Missoula recently aboard a Horizon Air flight from Seattle. Airport personnel and contractors were able to pull off a truly incredible engineering accomplishment in a relatively short period of time. Thanks to advance planning, dedicated crews working in 100 degree temperatures, and unprecedented cooperation from Mother Nature, Missoula has one of the newest and smartest runways in the northwest.

# THE ART OF FLYING

By Art Dykstra

## Come Over to the Dark Side

As our days get shorter and shorter, the issue of night flying and night currency becomes an unavoidable fact. So, let's start by stating the obvious. Single engine, night flying in the mountains during the winter, has got to rank right up there with Rodeo clown for high risk activities. Sure, he gets away from the bull most of the time, but if he doesn't, it gets real ugly in a hurry.

Luckily, as with most things in life, we have choices. The first and most drastic is to limit your flight time to only the daylight hours. Based upon pure risk analysis, this is certainly the safest choice, and if that is your decision, don't let my opinion or anyone else's, change that. However, not only does this put a huge dent in your flying time, but you also miss out on some really beautiful flights. Night flights are usually smooth, the city lights are amazing, and other airplanes can be spotted miles away.

The second choice is to modify your flights so that you only fly in CAVU weather and stay over the valleys. This reduces the risk, but still presents some challenges. Spatial disorientation and picking a landing site are two that come to mind. I have accepted this level of risk for my own personal flying

Is it more dangerous than daytime? Absolutely! Do I fly my family around at night? Very rarely in single engine airplanes, and if I do, it's on local scenic flights in the valley. Have I flown cross country over the mountains at night? Yes, but only with able bodied, consenting adults on board, and at an altitude that is 2000 ft above the highest terrain. I also make sure that my survival gear is fully stocked and easily accessible, not buried in the back under a pile of tie down ropes, oily rags and old Trade-A-planes. Some sort of flight tracking is a must! It can be an official FAA flight plan, or a friend or relative (preferably one that is NOT in your will) who knows the proper steps to take if you don't arrive on time.

Even with a lot of planning and justifying, night mountain flying is not something to be taken lightly. Make sure that you and your passengers are mentally ready to accept the consequences of your choice.

The third choice or "I'll take door number 3, Bob!" is to laugh in the face of danger and continue to fly in marginal VFR and always go GPS direct, because that's how real men fly! On

the surface this sounds like the pilot you read about in the NTSB reports. But it is true, the airplane doesn't know if it is day or night and the chances of a mechanical failure are not any higher just because it's dark out. The problem with this attitude is that if something goes wrong and you have to make an "Unscheduled, off airport Landing", the task of picking a landing site in the pitch black darkness of the mountains and then surviving at least one, maybe more nights in the cold, is more reality than most people want.

If you do choose to experience night flight, then here are a few tips to make things go smoother.

*Know your Regs.* FAR 61.57(b): "No person may act as Pilot in Command of an aircraft carrying passengers during the period of 1 hour after sunset and ending 1 hour before sunrise, unless within the preceding 90 days that person has made at least 3 takeoffs and 3 landings to a full stop during the period beginning 1 hour after sunset and ending 1 hour before sunrise"

*Carry more than one flashlight.* Murphy's law is doubled at night!

*Allow more time for Preflight, Start up and Taxi.* I don't care how many hours you have in your airplane at your airport, everything looks different and takes longer at night. Be sure and check your lights (Nav, landing, strobes, interior), before you start the engine.

*Start out easy.* Take a few evening flights, and land just as it starts to get dark to get used to the different visual cues. Then do a few landings at your home airport when it is truly night time. The stress level will be a lot lower.

*Practice total electrical failure landings.* Be prepared for the worst. You should have practiced a few no landing light, no panes lights, and no flap landings so that if it happens, it's not your first attempt. Carrying a handheld radio is a good idea, but *be advised that you probably wont be able to turn on the lights at an uncontrolled field unless you have an external coaxial cable for the antenna.*

The bottom line is, weigh the risks, make a decision based upon what you feel is acceptable and stick to it. Your decision may change as your life changes, but make sure when you get in the airplane, whether it is day or night, that you are comfortable with the choice you've made.



*Avoid night seasonal mid-air collision hazard on December 24<sup>th</sup>. If you see this (and, perhaps a slight reflection of antlers), you're too close... dive!*

**Editor's note: Missoula area pilots go on "flyouts" every flyable weekend. To get flyout announcements, contact Gary Weyermann: [gweyermann@msn.com](mailto:gweyermann@msn.com)**

## We're on Your Frequency

*MSO GA News thanks Chris Hart, Art Dykstra, and Gary Weyermann for contributing to this newsletter! If you'd like to earn cash in your spare time, write for something else. But... if you have something interesting to write about for free 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 next issue will be coming in the spring quarter. Interested in contributing? Contact the editor (see below).*

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*Editor and reporter: Gary Matson, Box 308, Milltown MT 59851 • 370-6584(c) • gjmatson@montana.com*

*Missoula International Airport: 5225 Highway 10 West, Missoula MT 59808 • 728-4381 • www.flymissoula.com*

*EAA Chapter 517: eeachapter517@aol.com • www.eaa517.org*

### MISSOULA AVIATION WEB SITES

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

Minuteman Aviation: <http://www.minutemanaviation.com>

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

Northstar Air Express: <http://www.northstarmso.com>

Life Flight: <http://www.saintpatrick.org/index.php?view=lifeflight.main>

EAA Chapter 517: <http://www.eaa517.org>

Smokejumper aircraft: <http://www.fs.fed.us/fire/people/smokejumpers/>

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