Burgers and Fliers @ CA35, Nov. 15
More from 2nd Annual Smith Ranch BBQ and Hangar Crawl...
In Big Sky, It Takes 2 Guys to Change The Light Bulbs

This article is from the Wall Street Journal, September 10, 2014, and is a follow-up to our original story in the September 2013 Crosswinds Correction, which you can find here: [http://www.1232.eaachapter.org/September2013Newsletter.pdf](http://www.1232.eaachapter.org/September2013Newsletter.pdf)

HELENA, Mont.—Toting a 30-pound rucksack, Mike Rogan squeezes his 6-foot-5-inch frame inside the safety bars encasing a steel ladder and climbs to the top of a 91-foot tower on the side of a Montana mountain just west of here. His mission: to change a light bulb.

In an era of advanced radar and satellite-based navigation, Mr. Rogan has a job that has changed little since the dawn of aviation. He maintains giant lamps used to guide night pilots through the lonely peaks of western Montana. Once part of a national network, the 17 beacons in Big Sky Country now serve as functioning fossils, and keeping them lighted requires no small amount of devotion.

Mr. Rogan and colleague Ken Wilhelm, employees of the Montana Transportation Department’s Aeronautics Division, visit each of the 17 beacons three times a year, solo in summer and in pairs on winter trips that require snow machines—and snowshoes. They’ve encountered bears, snakes, wolves and swarms of flying ants. Birds use the beacons as perches and teenagers have been known to climb up and party at the top. Sometimes passersby use the lights for target practice.

"I’ve had to replace this dome four times," Mr. Rogan says of the big light atop the 79-year-old MacDonald Pass beacon here on a wind-whipped, 6,500-foot mountain on the Continental Divide.

The work isn’t for the acrophobic. After scaling the MacDonald Pass beacon on a recent morning, Mr. Rogan unlocks the catwalk at the top and crawls toward the large, rotating light dome and two smaller, stationary ones. He swaps in new bulbs, greases the main bearing, and checks the wiring before descending.

Lighted airway beacons once twinkled from sea to sea. In the 1920s and 1930s, the U.S. Postal Service and the Commerce Department’s Bureau of Air Commerce created 18,000 miles of national airway corridors and erected 1,550 towers to light the way for pilots as they began flying mail and passengers at night.

Flying from one beacon to the next, early aviators could avoid storms and peaks if they could just see the alternating red and white blinks ahead. If only the white light shone, it meant the pilot was a little off the airway routing. A beacon totally obscured was a signal to turn back.

By the 1960s, with advances in aircraft and navigation gear, the Federal Aviation Administration started toppling the beacons. The last decommissioned lamp, from 1972, now graces a gallery at the Smithsonian National Air and Space Museum in Washington.

But the state of Montana, whose general-aviation pilots liked the extra protection the beacons afforded, took over some with FAA permission and kept them going. The 17 remaining today light an east-west route from Bozeman to Missoula and a north-south route from Monida Pass to Great Falls. Keeping them up consumes about $15,000 a year, excluding labor, or about 2% of the Aeronautic Division’s annual $800,000 budget.

The beacons’ rotating lights can been seen for 20 miles or more by the naked eye. They are powered today by 250-watt metal halide light bulbs, which Mr. Rogan and his colleagues get from Home Depot or Bulbs.com. The towers also have two "course lights," 500-watt quartz lamps that project beams pointing to the next beacon and flash each beacon’s location in Morse Code.

Pilots swear by them. Harold Dramstad, a freelance pilot, recalls a trip he made in 2011, flying a group of engineers in a Cessna from Miles City to Bozeman and then Helena. The group was running late, and it grew dark. In Bozeman, he checked the weather radar on his smartphone and saw a line of heavy rain. But he decided to take off, using the beacons to check ahead to make sure the way was safe. "Being able to see a landmark at night 30 miles up the road is invaluable," he says.

In the early 1990s, a new Montana Transportation Department chief decided to retire the beacons and turned the lights out. Local aviators raised Cain. Denny Rehberg, then lieutenant governor, sympathized and blocked the plan, citing the needs of the state’s "high concentration of nonprofessional pilots." Later a beacon north of Helena was renamed in his honor. "I’ve never been up there," says the Billings rancher.
Tending to These Aging Airway Beacons Isn't for Faint of Heart

Mr. Rogan, 55 years old, has been caring for beacons for 30 years, along with other duties such as air searches for downed planes and keeping the state's smallest air fields operational. Mr. Wilhelm, 48, has put in nearly 15 years maintaining the Aeronautics Division's two planes and keeping the beacons lighted, following in his father's footsteps.

Mr. Wilhelm says he has shed 50 pounds in his time on the job, seen big-horned sheep and gotten comfortable wearing snake chaps to repel the occasional serpent. This summer, on a tuneup at Wolf Creek beacon north of Helena, he spied 10 vultures hovering over the tower. When he got to the top, "everything was covered with vulture poop," Mr. Wilhelm says, wrinkling his nose in disgust.

For safety, the pair teams up in winter, hauling all-terrain vehicles and snow mobiles behind a truck, sometimes navigating the final leg on snowshoes in up to nine feet of snow. They are unarmed but carry bear spray, satellite phones, fire starters and other emergency gear. In the end, "the only way you can get to them is to walk up a mountain with a backpack on," says Mr. Rogan.

Lately, the beacons have been getting some new appreciation. In May, Mr. Wilhelm's daughter, Sidney, and three of her high-school classmates won top prize for their float—a postmistress, the MacDonald Pass beacon and an airmail plane—in Helena's annual Vigilante Parade. In July, the National Register of Historic Places added the MacDonald Pass beacon to its list, which could help ensure its continued survival. State historians now hope to get the other 16 listed, too.

Mr. Rogan says the beacons could benefit from even more attention. "It would be nice if they were all painted again," he says, after descending from the MacDonald Pass beacon. He points to the faded orange-and-white stripes on the tower structure. "But it would be quite a lot of work."

LIGHTING THE NIGHT

Originally, mail planes only flew during daylight hours for the safety of the pilots and the reliability of the system. The mail was placed on trains overnight, providing coast-to-coast service in 72 hours, but the fastest trains of the day could transport a piece of mail coast-to-coast in 100 hours. To achieve the real benefit of overnight air mail service, the air mail routes had to be flown at night. To accomplish this, lighted air mail routes were created by the Post Office to guide the pilots to their destination.

In 1923, the first lighted airway was created from Cheyenne, Wyoming, to Chicago, Illinois. This particular route was chosen with the thought that a morning departure from either the East or West Coast along the main transcontinental route would encounter nightfall by the start of the lighted airway. Approximately every 10 miles, a 1-million-candlepower rotating beacon would rotate at six revolutions per minute and mark the route. The beacons were placed atop a standard 51-foot tall tower and were visible to pilots up to 60 miles away. The path along the main transcontinental route from New York to San Francisco was lit by 616 of these beacons.

Also atop these towers were two 100,000 candlepower course lights pointing up and down the airway. These course lights were color-coded with green signifying an adjacent airfield and red meaning no airfield. The course lights flashed a Morse code letter identifier signifying the beacon's sequence along a particular 100-mile segment.

Emergency airfields were created every 15 to 20 miles along the route; these were commonly on privately owned property where a farmer was paid to keep a portion of his land clear for such purpose.
“Rumors persisted for some time that there was beer delivery to the ground troops, but could never verify that nor how it might have been done. Some Americans were known to fill up their drops, take them to altitude to cool off the beer for squadron parties.”

-from the British quarterly “General Aviation News”
CALENDAR

Dec 4 Marin Aviation Commission meeting, Room 329 (Board Chambers) Civic Center 7 p.m.

Dec 9 EAA Chapter 1232 Monthly meeting, NO MEETING IN DECEMBER

Dec 13 GFCA Breakfast Meeting, Scanlon Hangar Gnoss Field 9 a.m. “Winter Flying in the Sierra and Rockies, Landing Jets at Gnoss, Air Carrier Airport Techniques”, Wright Bass, Corporate Pilot

Dec 17 GFCA Board Meeting, Airport Lounge, Gnoss Field 7 p.m. members welcome!

Jan 10 GFCA Breakfast Meeting, Scanlon Hangar Gnoss Field 9 a.m. Topic: Operational Changes at STS (Santa Rosa)

Jan 13 EAA Chapter 1232 Monthly meeting, CAP Trailer Gnoss Field, 6:30 p.m. dinner, 7:00 Mtg. Officer Elections and Movie Night: “Bob Hoover: Flying the Feathered Edge” - new documentary

Jan 21 GFCA Board Meeting, Airport Lounge, Gnoss Field 7 p.m. members welcome!

Feb 5 Marin Aviation Commission meeting, Room 329 (Board Chambers) Civic Center 7 p.m.

Feb 10 EAA Chapter 1232 Monthly meeting, CAP Trailer Gnoss Field, 6:30 p.m. dinner, 7:00 Mtg. Speaker Tom Ryan “Champs to Baja”.

Feb 14 GFCA Breakfast Meeting, Scanlon Hangar Gnoss Field 9 a.m. Featured Speaker; Corl Leach, president-California Pilots Association

Feb 18 GFCA Board Meeting, Airport Lounge, Gnoss Field 7 p.m. members welcome!

Feb 24 Runway Extension Merits Hearing, Time TBD, Room 329 (Board Chambers), Civic Center
Web Gems-This Month’s Best
(if clicking these links doesn’t work copy/paste them into your browser’s address window)

Nice community fly-in at Ranger, TX: https://www.flickr.com/photos/flyermedia/sets/72157648792788465/

EAA Video on Corvair College. Grassroots aviation at its’ best: http://youtu.be/wvXAX0C2q5c

Good, short instructional video on making a power off 180 landing: http://youtu.be/aK5ks7iXF1M

900’ strip at 5423’? No problem: http://vimeo.com/99490998

Guy Martin’s Spitfire (full-length British TV special): http://vimeo.com/109761230

Restart of ME-109G after 40 years in a barn: http://youtu.be/GmPw1GEpveU

ME-262 (!) and P-51 at Wings Over Houston: http://youtu.be/QMS0TBIKBpC

Diving for the numbers in a C-130: http://youtu.be/MrZaj3i6xd8

New Meaning to the Phrase “flying blind”: http://vimeo.com/110650445

Pretty Nice OSH video from a Teen: http://youtu.be/Q2ewmasAH_0

Aerobatics with the new 100-HP Corvair-powered Panther: http://flywithspa.com/happy-thanksgiving-from-spa/
November Breakfast Meeting

Our November breakfast meeting turned out to be one of our best in recent months, with 41 people in attendance for Terry Lankford’s presentation on weather data sources. Ted Newman reported that we actually ran out of food!

Terry’s presentation was likely the reason for the big crowd (the perfect weather didn’t hurt!), and he brought all the knowledge gained from years not only as a pilot and CFII, but also as a retired FAA FSS rep. He focused on the application and interpretation of aviation weather forecasts, highlighting the pros and cons of the various types of reports available and how best to use them.

His talk was the latest block from the Weather Theory for Pilots program that the National Weather Association’s Aviation Meteorology Committee has developed for pilots, and it provided practical information on forecast purpose, scope, and limitations—for both VFR and IFR operations; along with forecast accuracy and improvements to aviation products. Terry looked at forecasts from the pilot’s perspective, but also pointed out the operational requirements and limitations of the aviation forecaster.

By the way, Ted also noted that we had plenty of volunteers to help set up for the breakfast and the meeting itself, which made a huge difference. Thanks to everyone who came out early to make that happen.

For December: Wright Bass, Corporate Citation pilot

December’s meeting will feature something a little different when local corporate pilot Wright Bass (who many of us know) will talk about winter flying in the Sierras and Rockies, landing jets at Gnoss, and air carrier airport techniques, all based on his experience in doing all of the above in a Citation. All types of topics are likely to be discussed, including wake turbulence, icing, terrain avoidance, landing on snow, de-icing and turbulence. Also some notes on how much easier it is to land a jet at Gnoss when the wind is blowing!

So, plan on joining us in the Scanlon hangar at 9:00 on Saturday, December 13—Pat has portable heaters at the ready, if his shop isn’t too full of customer planes! Come have a great breakfast (still the best deal in town at $7.00 for eggs, pancakes, sausages, fruit, OJ and Charlie’s fantastic coffee), hear an entertaining and informative speaker, greet some old friends, meet some new ones, and load up on enough hangar flying to get you through the month.

AWOS Update

Boy, it’s been a busy (and somewhat unsettling) month on this front. Back in November we learned that the FAA had denied the County’s application for a grant to replace our malfunctioning AWOS unit. The FAA claims the County was late with its’ application, the County says the FAA keeps moving the goalpost on their documentation requirements for the grant, and the truth lies somewhere in between. We may never really know what happened.

What we DO know is that we’re stuck with an AWOS unit that hasn’t functioned properly, omitting either cloud cover and/or visibility readings for over three years now, and we’re trying to determine the County’s plan going forward. As you read in the November newsletter, GFCA president Ken Mercer asked the Board of Supervisors to direct the Airport Commission to begin work immediately on finding the necessary funds, but we haven’t been able to determine if that happened.

We also know that we’ve asked that this important issue be put on the agenda for the Airport Commission’s December 4 meeting, as DPW, Dan Jensen and the Board have asked us to do. We haven’t given up on pursuing this directly with all parties involved, including the FAA, should the Airport Commission prove to be ineffective in this case.

Runway Repair Update

Again, it’s been a busy month. As we now know, the quickest way to get the runway crack and swale fixed is to have it done as part of the overall runway extension project, as it’s already built into that process. Also back in November we learned that the County did receive approval for a grant for the next step in this lengthy and complicated process, to hire a consultant to do an updated Airport Layout Plan and updated GIS survey (locating high spots and other hazards to approaches for the longer runway).

We were trying to get DPW to tell us why they haven’t yet put out the request for proposals to hire this consultant, fearing they were waiting until after the February 24 merits hearing (see below), when we heard through sources that finalizing of the grant had been held up in Washington by a challenge from the EPA, who is challenging all projects that involve wetlands mitigation.

We may not be able to do anything about the EPA-caused delay, but we’re working to ensure that everything is ready to go on the County’s end when the grant funds are finally released, and that other grants related to the extension project are ready to go and are “compressed” into a series of parallel submissions (where possible) rather
than being strung out sequentially, which would push the actual runway work out even further.

Merits Hearing

As far as we have been able to determine, the merits hearing is a uniquely Californian (and perhaps even more uniquely Marin-born) hearing inserted in the normal airport project approval process that serves to give the sponsor (the Board of Supervisors) one last chance to give a thumbs-up or down. In this case it means filtering out all of the various odd options that were on the old Airport Improvement Plan (from 1997) that showed both a shorted runway option (additional 500 ft) and a crosswind runway, and defining this project specifically as a 1100 ft. extension and repair/resurfacing of the existing runway.

Of course, this gives the project's opponents yet another chance to bring up their already-disproved concerns and allayed fears, but with the very real chance that they could derail the entire project, at this late date.

Our job, as GFCA members, will be to attend this hearing in large and visible numbers, and to be very disciplined in speaking directly to the advantages of having this runway extension. We'll be communicating with you often between now and then on this issue, with more concrete suggestions on how we can be most effective as individuals and as a concerned organization. Join us at a GFCA board meeting in January or February (preceding the merits hearing) or speak with a GFCA board member if you'd like to help shape our positions and response.

An Angel in our Midst...

The Rotary Club of Marin Evening has recognized two people with its 3rd annual Service Above Self Awards.

The awards recognize one member each from the Marin County Fire Department and Marin County Sheriff's Office who are dedicated to serving the community. Sandy Walker, chaplain and air patrol pilot with the Sheriff's Office, received the award as did Keith Wallace, fire engineer with the Marin County Fire Department.

Congratulations, Sandy!

RV-12 S-LSA Coming to Scanlon Aviation!

Last Summer EAA Chapter 1232 brought the inaugural west coast RV-12 tour to Gnoss Field. Well, part of the tour, anyway -July evening winds of 20G28 kept the RV-12 from actually landing at Gnoss, but the crew diverted to Petaluma (where the wind was blowing right down 29) and provided several demo rides to prospective customers. Later that evening they made a presentation at the EAA chapter meeting, impressing almost everyone with this machine’s capabilities in spite of its’ diminutive size.

The team from Van’s Aircraft had hoped to include Pat Scanlon in their demo schedule, but their late arrival and diversion to O69 precluded that.

They did come back in October, however, and Pat and staff had a chance to fly the plane, talk over the economics of operating it as a line trainer, and discuss Rotax engine training for his staff. As a result of this visit Pat will take delivery of a production RV-12 Special Light Sport (factory built version) in December or January.

After some break-in and familiarity training Pat and his instructors will be giving instruction in this little gem and it will ultimately it will be available for rental (after the individual pilot is evaluated and signed off by one of his instructors). Light sport aircraft are a different breed with unique handling qualities, so expect that there will be some dual transition work required before signoff.
Our monthly membership meetings are held the second Tuesday evening of each month (except December), starting with dinner at 6:30 and followed by the main presentation(s) at 7:00. Our hosts are the Novato Squadron of the Civil Air Patrol who graciously allow us to use their facility at 400 Airport Boulevard, Gnoss Field, in northern Novato (in the south parking lot). Here’s a crude map, but please do contact one of our officers for more information and/or directions:

In addition to our regular monthly evening meetings, many of us meet for lunch at noon every Thursday at The Club restaurant at McGinnis Park Golf Course on Smith Ranch Road in San Rafael. The hostess on duty can direct you to our “regular” room but again, please contact one of our officers for better directions.

Membership is $25/yr. and is open to anyone—contact any of our officers (above, left) for details!

Because of travel and the general craziness of the holidays, there will be no December meeting for EAA Chapter 1232. Instead, we’ll take a break and return on Tuesday evening, January 13. At that meeting we’ll have our annual chapter officer elections. Note that Tom Schiff has expressed interest in stepping down from his treasurer duties, but note also that over the past two years he’s pared the actual work down to require a bare minimum of time each month. He’ll continue as our “a/v specialist”, which is no small job itself.

If you’d like to be considered for any of the officer positions, including President, Vice-President, Secretary or Treasurer drop us a note at EAA1232@gmail.com, or bring it up at the January meeting. Here are the current “occupants”, just to refresh your memory:

President – Ken Mercer
Vice-President – Phil Simon
Treasurer – Tom Schiff

Both Phil and Tom have put in many years in various leadership positions in the chapter; heck, Tom founded the chapter way back when, and we can always use some new presidential blood. So maybe someone else can step up and take a crack at one of these positions and give these guys a bit of a break?

In addition to the officer elections, in January we’ll run a new documentary film that was released on December 4 on Bob Hoover’s life, entitled “Bob Hoover: Flying the Feathered Edge”. Here’s a short trailer for the film: http://youtu.be/PzBiMQNc4tA. The movie itself is about an hour and a half long, so do what you need to do to stay awake that long...

By the way, we will have four months’ worth of unseen monthly EAA videos by that date, and there have been some interesting updates and features in each one that you may want to see. We are not allowed to put these online—they’re intended to be a benefit of belonging to a local chapter, after all—but all four videos will be available on a DVD at the January meeting for chapter members who might want to catch up. Don’t post them online, though—we’ll know who you are!