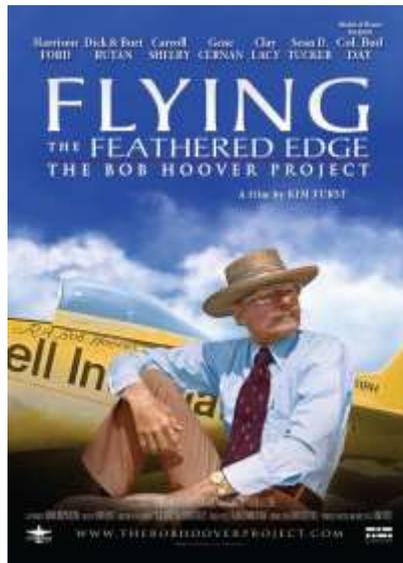




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Aviation Association

*Kim Furst, Filmmaker
“Flying the Feathered Edge”
Saturday, February 6th
McGowan Hangar 6PM*



Filmmaker Kim Furst is an award winning director and editor of popular documentaries. Recent work as an editor includes Discovery Channel's three-part series "Rocket Challenge," the General Aviation classic "One Six Right," "Wings Over the Rockies" starring Harrison Ford, and as producer/editor episodes of AirshowBuzz's "The Horsemen Cometh" (about a formation aerobatics P-51 team), and hours of behind the scenes documentaries for "Mission: Impossible III," (Golden Satellite Award.) Other recognitions as producer/director include the 2012 Rising Star Award (Canada International Film Festival), 2012 Golden Ace Award (Las Vegas Film Festival) and "Best Music Video 2011" from Independent Film Quarterly, as well as the 2014 Grand Prize for Soldiers and Sacrifice at the Rhode Island International Film Festival.

At this meeting, the presenter will talk about the making of the documentary "Flying the Feathered Edge" and will have copies of the video on hand for sale.

Meet Your 2016 PMLAA Board

President Dale Mueller

After an eventful year as VP of Airport Affairs, most of you have seen and met me at the monthly gatherings, but for those who haven't, here's a brief recap of how I arrived at PML. I'm a 1950-model boomer from Jennings, Missouri, which is right next to Ferguson. Yep, that Ferguson. Eagle Scout, AF Academy grad, bomber pilot, airline pilot, Army rotorhead, diver of all mediums: these are a few of my less-offensive epithets. I have had only one

career (pilot), but I've had countless jobs. Starting in B-52s, I have transitioned to ever-smaller aircraft (with a brief uptick at Eastern Air Lines) until I arrived at my present employment flying EMS Bell 407s. My wife Kandy and I moved to PML 3 ½ years ago after 35 years of aviation-caused quasi-homelessness. We love it here, so of course we said the same thing we've said the last 17 times we've moved: we're staying.

VP Airport Affairs Steve deRodeff

I learned to fly in 1998, long after most of the other folks up here, but hey, it's never too late to start flying. My wife Sandy, also a pilot, and I love to fly

cross country in our 182, carrying our golf clubs and most anything else we want in the 'truck of the sky', traveling to Colorado Springs, Cheyenne, the Grand Canyon, Port Clinton Ohio and New Hampshire among the places we like to visit.

VP Social Affairs Danielle Coelho

My husband Gabriel and I have been members of PMLAA enjoying our weekends up here since 2007. Last year I was your secretary, and you probably saw me helping sell drink tickets. This year you will see me fluttering around the food table with extra serving spoons in my hands! Outside of the meetings you will see me flying around this year with a big smile in my new plane- I call her Chickenhawk since it's a Cessna 150 with a Chickenhawk painted on the tail.

Secretary Norma Lella

I've been a PMLA resident since 2005 when I married Michael, who is the pilot in the family. I have a son, a daughter and a daughter of the four-legged kind! After having spent 30 years in the dental health field, I'm now enjoying more running and outdoor activities, and am pursuing other interests.

Treasurer Janet Gregory

I was happily "volun-told" for this position, which is a cross between volunteering and being told! Ed & I bought our PML property in 2006 and moved here full time from the Bay Area in 2010. We are both semi-retired or semi-working, depending on our state of mind. Thanks to the PML Aero Club and Larry Jobe, I got my pilot's license at E45 in 2012. I hope to hit 400 hours by my second BFR! Longest flight to date was E45 to BLI (Bellingham, WA on the Canadian border).

President's Message

By Dale Mueller

New Year's greetings from your incoming president. After a hugely successful 2015 under your outgoing, outgoing president Catharine Santa Maria, I hope to step up and make 2016 another huge success. Several exciting speakers are already scheduled, with more to come. With the persistent forecast, at least, of more wintry weather than we've been used to in recent years, my goal is to raise weather safety awareness. To that end, I plan to have at least a short safety topic in every newsletter. I'd also like to plan a short safety session for each meeting. If anybody has a pet subject area that lends itself to a short (5

minutes or less) presentation, please let me know. With the abundance of aviation talent and experience available here at PML, not to mention the generous donation of time, energy, and facilities from our friends and neighbors, we have the makings of a banner year. Happy New Year!

Social Column

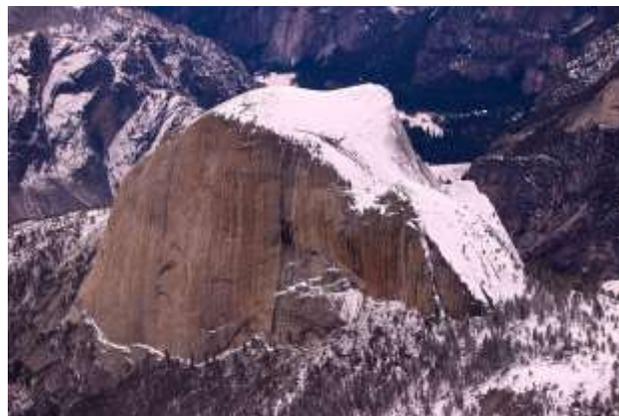
By Danielle Coelho

Let's fill our meetings with good fellowship, laughter, fun and share with our friends some of our favorite food dishes. Since February is still a chilly month let's bring our favorite food that we make to keep warm. I myself am going to make a Portuguese dish called Sopas. It's a favorite in our house all year but especially in the winter. In honor of the Superbowl, wear your favorite team's jersey or colors. I look forward to seeing you at the meeting on Saturday February 6th at the McGowan hangar.

Aerial Photo Exhibition

By Janet Gregory

Captivating. Stimulating. Complex. Yes, pure simplicity. California as seen through the eyes of a pilot and artist behind a camera lens. Breathtaking views of Yosemite, Knight's Ferry Bridge and E45 captured by Susie Williams will be featured in a photo exhibition. This must-see exhibition will be at the Groveland Community Library, lower-level, February 1 through March 31. Susie is a fourth-generation Californian who made PML her home in 2013. As a pilot, she captures the beauty of the area from the ground and the air, from spring flowers to snow draped peaks.



Half Dome, Back Side by Susie Williams

Safety Zone - Hydroplaning

By Dale Mueller

To start off- Best Wishes for a Safe and Prosperous New Year!

That greeting sets up the ideal introduction to this article's topic. Hydroplaning refers to aircraft (or any vehicle, for that matter) tire contact, or lack thereof, with a runway or taxiway surface. It is caused by tires rolling or sliding over "runway contamination", which in this case is not FOD or foreign objects, which is a separate subject, but is water in one or more of its forms covering the runway surface. The obvious question at this point is "Oh, yeah? Where we gonna get all that water?". It's true that we haven't seen much in the way of winter the past few years, and that has meant not having to deal with much water in any of its forms. But if the National Weather Service can be believed (seriously?) we're in for it this year, and that means the distinct possibility of landing on wet/snowy/slushy runways, especially up here in the high country.

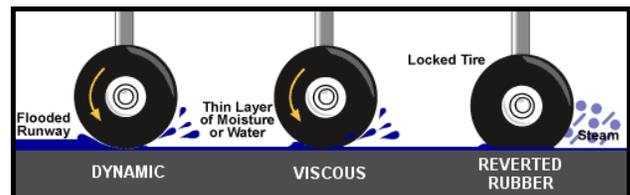
Hydroplaning comes in three basic varieties, but all have one thing in common: runway contamination getting between tires and the runway surface. If one or more tires are hydroplaning, they are not in contact with the runway surface, and therefore offer the pilot little or no braking or steering capability. The deeper the contamination, the lower the speed at which hydroplaning can happen.

The variety that requires the least amount of water on pavement is "viscous" hydroplaning. This happens when a very thin layer of water gets between a tire and the runway surface, which requires a very smooth surface such as new asphalt or the rubber skid marks on the runway in the touchdown area. The smooth surface doesn't allow the water to be pressed out of the way by the rolling tire. This condition can actually mimic wet ice in slipperiness.

The next variety is "reverted rubber" hydroplaning. This type also does not require much runway contamination. It happens when the pilot has stopped tire rotation with braking. The friction from the locked wheel creates enough heat to turn the water on the runway into steam under the tire, and also heats the tire rubber enough that it "reverts" to uncured rubber, which itself is gooey. Reverted rubber hydroplaning can be difficult to detect at onset, and persist down to a low speed- 20 knots or even slower.

The third variety is "dynamic" hydroplaning, where the contamination is deep enough, or your tire is bald enough, that water/slush simply can't be channeled away from under the tire fast enough, so the tire rides up on a layer of water. This type occurs at speeds that are directly related to tire pressure. The lower the pressure, the lower speed and therefore the sooner hydroplaning can happen. Using a typical general aviation tire pressure of around 30PSI and the formula (9 times the square root of the tire pressure), dynamic hydroplaning can start at around 50 knots- a speed easily reachable by PML airplanes on landing or an aborted takeoff. The 50 knot speed is also for a rotating tire. If the pilot has locked the wheels with brakes, the speed is even lower. To add insult to injury, if dynamic hydroplaning results in a rolling tire completely losing contact with the runway surface, the tire will stop rotating by itself, due to the dynamic pressure of the water flow under the tire.

So what's the bottom line? What can we do to prevent hydroplaning, and what can we do to regain control and braking if it starts? Even before landing, we can start prevention by flying a stabilized approach at short-field landing airspeed or slightly above. Don't try for a "squeaker"- plan on a firm touchdown instead. Once on the runway, reverse thrust and anti-skid systems are effective, but are available to only a select few here at PML. The best option for the rest of us is aerodynamic braking. The aim here is to get the airplane as slow as you can without brakes. This requires increasing induced drag by raising the nose as much as possible with the elevator control available. In tailwheel aircraft, this has the added benefit of getting the tailwheel on the ground and making tailwheel steering available. Slowing in this manner can both serve to prevent hydroplaning, and to restore tire contact with the runway surface if hydroplaning has started. A progressive brake application will help keep tires rolling and also aid in detecting hydroplaning onset. With the airplane slowed below hydroplaning speed, normal braking and steering become effective. After all, the whole idea is to exit the runway in an orderly fashion, at an approved turnoff/taxiway, under control at proper taxi speed. You'll look competent, feel competent, and you will have the always-prized benefit of being able to re-use the airplane.





2016 Meeting Calendar

<u>Date</u>	<u>Program</u>	<u>Time & Location</u>
February 6 th	Kim Furst (Bob Hoover filmmaker)	6:00PM Location McGowan Hangar
March 5 th	(TBD)	6:00PM Location McGowan Hangar
April 2 nd	Ken Orloff	6:00PM location McGowan Hangar

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