



Next Meeting:

When: Thursday, June 3rd at 6:30pm

Where: EAA Hangar, 8300 Tibor Rd



President's Hot Seat

June 2021

By Tom Ruppert

Good morning from Tucson. Time once again for my monthly missive. For those that don't know, I have taken on a new aircraft type for me, the iconic LearJet. I missed the last general meeting as I am in Tucson at Flight Safety going through training. At my age it's a big bite to chew!

I find that this experience serves to reinforce what I already know about OUR chapter, the strength is in the people. The people that are willing to step up for committees, to volunteer their time to the group, to provide input and guidance. As your president it is my job to help guide and support and then get the heck out of the way. Nobody builds an aircraft by themselves; we all need the support of our fellow enthusiasts. An EAA chapter is no different. So, to all of our current, past and future members a heartfelt thank you.

As summer is upon us, please read and share this newsletter and watch for upcoming events. For as they say "Let's get this party started!"

Cheers,

Tom Ruppert

Calendar

June

- 3 **EAA Chapter 1129 Regular Meeting**
6:30 pm
- 10 **VMC Club Meeting**
7:00pm
- 12 **Fly/Drive In Nenana Airport**

July

- 1 **EAA Chapter 1129 Regular Meeting**
6:30 pm

August

- 5 **EAA Chapter 1129 Regular Meeting**
6:30 pm

Great Tip...EAA Chapter 1129 is a non-profit organization. We are not specifically listed as a United Way agency, but if you specify "EAA Chapter 1129" on your United Way contribution form, the funds will be forward to your Chapter to benefit local aviation education and safety.

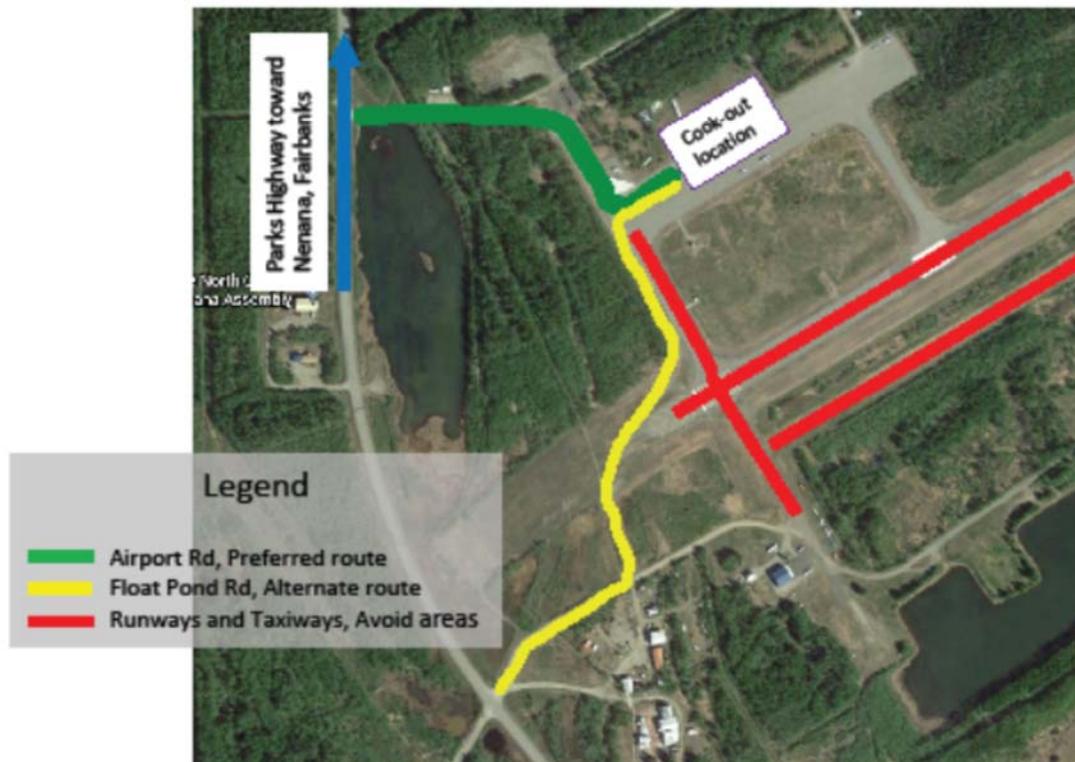
EAA Chapter 1129 Mission Statement:

Build, restore, innovate and educate to preserve Alaska's aviation heritage, and to promote Alaska's aviation future.

EAA Chapter 1129

Fly-In, Cook-out

June 12, 2021



- **LOCATION:** Nenana Municipal Airport
- 11:00 a.m. approximate arrival time to allow staggering for parking
- Pot luck style cook out, please bring a side dish to share
- Lunch line will be open at 12:00
- If using Airport Rd. entrance be aware of proximity to, and avoid taxiway and runway
- Parking for cars and planes is in the "Cook Out Location" on the map, keep eyes out for marshalling, if available
- Weather back up day is July 13th. A weather call will be distributed via email for this event.
- Direct any questions to:
 - James Trizzino – jamestrizzino@gmail.com or 907-799-4978
 - Jack Schnurr - jschnurrak@gmail.com or 907-699-7705



YAMAHA GENESIS FOUR-STROKE SNOWMOBILE ENGINES

By Todd Archer

Over the last 20 years, efficiency and emissions have driven a market shift away from two-stroke engines. In the late 90s, Yamaha was one of the first manufacturers to develop a serious four-stroke engine for motocross. (I remember seeing Doug Henry at the '97 Indianapolis Supercross scoring a holeshot on his YZM400F, en route to an outdoor title) These advancements changed competitive motocross bikes to the point that today there is only a single Japanese manufacturer of two-strokes in that class.

Yamaha continued to pioneer four-strokes with snowmobiles and produced an industry first powerplant for the 2003 RX-1. The development of the four cylinder Yamaha Genesis four-stroke (YG4) line began with all the moving parts of the YZF-R1 sport bike, save the crank. A lighter, slimmer case was conceived for the snow version with a different head, oil dry sump, alternate cooling, and new reduction gear shaft. The resulting four-stroke was 998cc of liquid-cooled displacement with DOHCs

turning five valves (3 intake) in each of the four inline cylinders.

In 2006, the "RX-1ton" was slimmed-down and refreshed as the Apex line, which managed to drop a kg! from the crank while adding fuel injection. Further refinements in 2011 netted several more hp with a new header, a new cam for variable valve timing (EXUP), and knock control.

Yamaha Genesis four-stroke, four cylinder (YG4):

- 140hp - 998cc YG4; 2003 - 2005 RX-1 sleds; installed 175#
- 150hp - 998cc YG4i; 2006 - 2010 Apex sleds; installed 170#
- 165hp - 998cc YG4i-EXUP; 2011 - 2018+ Apex sleds; installed 170#

Engines adapted for aircraft in the 150hp range are somewhat limited. Corvairs and Subaru EJs are some of the more traditional choices in that niche populated with more expensive purpose-built alternatives.

When contrasting a conventional aircraft engine in the similar category, you can see

straight away see the advancements in the YG engines. My O-300 145hp is 262# installed w/acc and recent perusals for a backup show \$6k-\$8k for a core. O-320 numbers show a bit lighter but not really any cheaper.

Like all adapted engines, once the airframe is completed, you only have 90% of the way to go. The YG series achieves its power numbers from a 1-liter engine by leveraging high compression and RPMs. As with nearly all conversions, the PSRU seems to be the missing link to a successful installation.

Fortunately, the YG community has grown to the point there are a few manufacturers of quality, geared PSRUs as well as engine harnesses and engine mounts. Support seems to run highest for Kitfox airframes and gyro applications.

- Mohawk Aero (<https://www.mohawkaero.com/>) fabricates wiring harnesses, multiple PSRU adapters in addition to their flagship AK7 3.47:1 PSRU
- Sky-Trax (<https://shop.edgeperformance.no/en/home/499-ep-mil-spec-harness.html>) builds a PSRU for the Apex engines. \$3,500

There are several high profile success stories using the YG engines;

- Steve Henry's "Yee-Haw" Highlander STOL airplane with YG4 (and some NO2)/Rotax C >> 190hp won all STOL drag races at Oshkosh in 2018, beating Draco.
- https://static.wixstatic.com/media/a55f89_5019f2e1c8ed4ec6abb7919521d50b98~mv2_d_3264_2448_s_4_2.jpg/v1/crop/x_0,y_607,w_3264,h_1372/fill/

[w_595,h_250,a_l_c,q_80,usm_0.66_1.00_0.01/IMG_4047.JPG.webp](https://www.rotaryforum.com/threads/worlds-first-160-hp-yamaha-exup-aircraft-engine.1145418/)

- Recent gyro install of EXUP VVT engine install.
<https://www.rotaryforum.com/threads/worlds-first-160-hp-yamaha-exup-aircraft-engine.1145418/>

These engines are all of recent production and relatively easy to come by. Not as ubiquitous as an auto engine, we do have a pretty good slice of the snowmobile market here.

One can typically find cores for <\$3000 and new redrives for a bit more. (One on local FB last week for \$1,000 w/2400 miles.) Considering you can get into the 150hp class with a redrive in the \$7,000-\$8,000 range without constantly fretting over the installed weight, it turns out to be a very attractive option.

Potlucks are back for June Meeting!

By Pat Crisenbery

Yes, you read that right. With the new CDC guidelines for fully vaccinated individuals, the board has decided to resume our traditional potluck summer meeting. We will have the grill fired up for hotdogs, and ask everyone to bring a dish to share if possible. Please plan on bringing your own beverage.

How about masks? Masks will now be optional if you are fully vaccinated. This will be totally on the honor system—we are not the mask or vaccine police. Please respect everyone's choices in this matter, especially those who continue to wear masks for personal reasons.

The hangar door will be open regardless of weather, so don't forget a jacket if the forecast is for rain or cool weather. There is no formal program for June. This is a social meeting and we hope everyone will share their progress on their projects.

Banquet 2022

We are in the very early planning stages for our annual banquet which we are hoping to resume in 2022. The first step is a reservation at Pike's Waterfront Lodge and that has been made for February 4, 2022. Please mark your calendars!

If any of you would like to help on the banquet committee, or have some good ideas for an interesting (and not very expensive) speaker, please talk to Pat Crisenbery at the meeting.

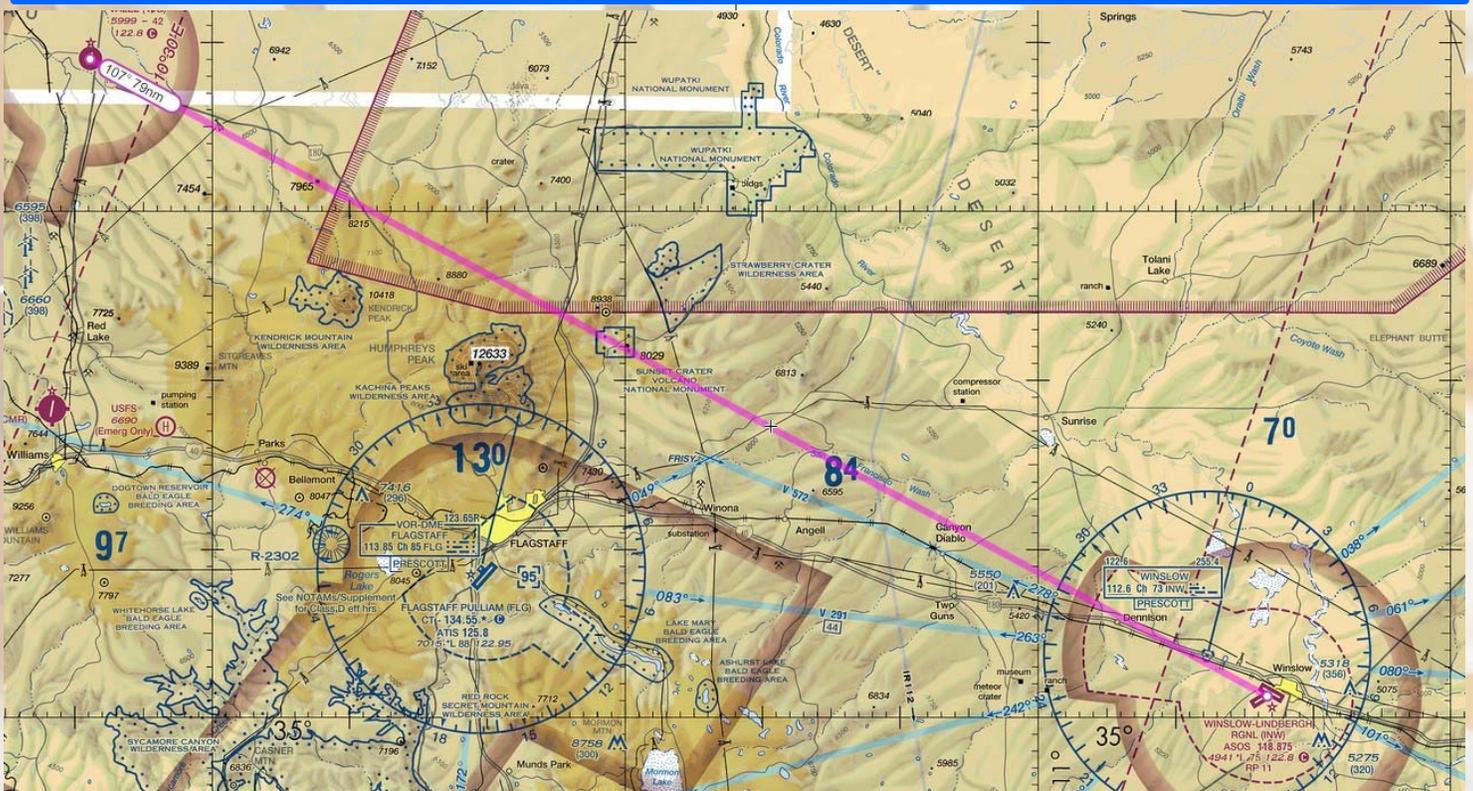
June 2021 EAA/VMC Club

You're traveling from Grand Valley (40G) to Winslow, Arizona (KINW), with a CAVU weather forecast for the entire flight. While enroute, something catches your eye and sparks your curiosity. Ahead you see a North/South runway that is directly on your flight path. You decide to land and check things out.

You check your chart and cannot identify the landing strip. As such, you have no CTAF or AWOS frequencies to monitor, and you do not see a windsock. You look carefully and do not see any signs of surface winds; no dust, bodies of water, not even a field of grass to reference! None of the clues you're used to seeing to interpret which direction the wind is blowing.

How else might you check for the surface wind? Should you be trying to land there?

(See chart below)



The above question was submitted by Bill Mitchell from EAA 43, Denver, CO

Bill Mitchell holds ATP ASMEI, CFI ASMEI, INSTRUMENT & GLIDER pilot certificates.

Since 2012 Bill is a Lifetime Member in EAA Chapter 43 in Broomfield / Erie, Colorado, and he is deeply involved in the EAA/IMC Club activities there.



An Update from James -On the Road...

I'm in a different country, and I still can't escape the call of the newsletter?

Here are a few from the trip so far. I departed Durango on Sunday (me and the plane) and made it to Price, UT (barely visible rainbow) where I stopped due to wx. Monday I made it to Lewiston, ID with a wx detour into Joseph State, OR (plane with mountains) yesterday I picked up Bill in Spokane and due to good friend of mine being good friends with the proprietor of Hangar 180 we were allowed a very interactive visit with the collection of Hangar 180.

We depart for the Canadian border in a couple of hours with (unrealistic) hopes of being home Friday.



A truck load of "good parts" for sale from Jimmy Anderson's storage.

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Join our Chapter!

Membership is only \$20/year and there are many benefits.
Interested? Call or email Pat Crisenbery crisen39@gmail.com



Bill Green inspecting the finds.
More info to come on this...?

CLASSIFIEDS

Quicksilver MX Sprint Ultralight

Completely rebuilt in fall of 2017. 110 hrs TT, includes big wheels, little wheels, skis, and full covers for storing outside.

Superbly fun to fly but I need to reduce the fleet and make room in the hangar. \$7000

Email me for more information.

jamestrizzino@gmail.com

