

The Leading Edge

EAA Chapter 154 Newsletter

May, 2021

Regina and Southern Saskatchewan

Presidents Message

Hopefully as more people get vaccinated COVID 19 restrictions will begin to get loosened and we will be able to get together again in a more normal fashion. Till then any events planned are subject to COVID protocols and subject to cancelation.

As always we appreciate your feedback, suggestions or to provide articles for the newsletter. Contact the chapter at

aaa154sask@gmail.com or call me direct at 306 751-1064

Ron Wood



Monthly VMC Club

The April VMC case study discussed the Master/Battery left on. Do you trickle charge the battery, jump it with a car, or hand prop.

Our group discussion felt that we should wait till the battery was charged. The RFC has in their rental agreement that hand propping is prohibited. Doug suggested he would take the boost. Vic said hand prop.

Experts say hand propping is valuable to learn but be very cautious and only use it if absolutely necessary. One expert said the alternators will charge too fast and ruin the battery.

Lessons Learned:

Always treat the prop as it is live and stay away from it.

We move props all the time – Verify that the ignition is off

You must know what your airplane has for equipment to know if you should hand prop or jump the battery.

The sessions are provided over Zoom. 8:00pm second Monday of the month. Email reminder sent monthly.

To Join the Zoom Meeting

<https://us02web.zoom.us/j/86745373947?pwd=TXF2UmhXQk44MXhNTmZaY1JIS0dNdz09>

Meeting ID: 867 4537 3947

Passcode: 119989

Time for Chapter Membership Renewal

Chapter dues are still just \$25 and you can renew by:

- 1) E-Transfer to aaa154sask@gmail.com
- 2) Mail a cheque to Doug Daverne, [40 Sheffield Place, Regina, SK, S4S 2Z6](#). Make cheque payable to EAA154

EAA154 Meeting Highlights

Discussions at the April meeting focused around EAA154 Chapter meeting content. It was decided that we will invite a guest speaker to present on a topic of interest to aviators. Our first guest speaker will be Steve from the Saskatchewan Air Museum in Saskatoon. He will present on our **May 17 2021** Zoom meeting. The scavenger hunt committee is working on the details of our “Photo Challenge” and will have a poster out for our next newsletter. We have picked the dates for our R.C. airplane demo days to be held at Disley airport. See below for details.

Dust off the R.C. Models

Date: Saturday June 12 (alternate date June 13), 2021

Where: Disley Airport CDS2

Time: Burgers at 4:00 PM, Flights to start at 7:00PM

Who: Fly what you got. Spectators and supporters welcome

Many of our members have R.C. model airplanes collecting dust in the basement. Yes, some have been nervous to fly it for the first time. At this event will be many experienced flyers that can provide pointers.

Registration: Not required. Show up to participate or watch.

Federal Budget 2021 Luxury Tax

Budget 2021 was released. In February 2020, COPA communicated its strong opposition to a proposed Luxury Tax on personal aircraft in a letter addressed to the Minister of Finance. COPA is communicating its continued opposition to the various levels of government, including current Minister of Finance, the Honourable Chrystia Freeland. COPA encourages you to do your part by writing to your Member of Parliament ([Parliament of Canada website](#) to find your MP) and copy copa@copanational.org

Member Travel Tales - by Wayne Runyon

New Mexico and back in Mooney C-GNWK

I had flown to Oshkosh with one of the other owners of our Mooney and to Sun & Fun with my son Greg. Well Greg and I made it to Sun & Fun but the Mooney didn't as there was a significant weather system in South East US so we left the Mooney in Cape Girardeau rented a car and drove from there.

I was ready for another airplane trip to the US and was telling Ken Etter I wanted to head south. Ken was keen to go with me. While chatting to Bert Hamilton about our plans to fly south he said he'd go with us. Where to go? I had been following the Baja Bush Pilots trips on the internet but we decided let's pick a destination in Southern US. I had been through San Antonio with its neat River Walk so that was our destination.

I planned the trip with stops about every 2 hours so early one October morning in 2006 off we went.

First stop Williston, ND (KISN) to clear customers. Then to Rapid City, SD (KRAP) with a stop for fuel and lunch. I don't remember the next planned stop but because of very strong tail winds we flew to Dodge City, KS(KDDC). Spent the night there. We had quick look at the infamous Boot Hill Cemetery out of the old Wild West cowboy films.

Checking whether the next morning San Antonio was not good due to a weather system around the west end of the gulf Coast. We decided Roswell, NM (KROW) would be our destination with a fuel stop in Plainview TX, (KPVW).



We rented a car to do some touring in the area. Of course one has to visit the Roswell Museum re the "Roswell Incident" in July 1947. Was it a US Armed Force weather

balloon or a UFO – depends on who you ask or who you believe.

South of Roswell near the Mexico border are the Carlsbad Caverns. Fascinating caves with stalagmites, stalactites, and "Big Room" which is as big as a football stadium underground. Then to Alamogordo to visit the New Mexico Museum of Space History. It was near Alamogordo where the US did the first atomic bomb test.

We then drove to Santa Fe, visited The Loreto Chapel which is now a museum with its unique helix- shaped spiral staircase. Then on to Los Alamos where the Manhattan project was that developed the Atomic Bomb. Along the way we stopped for gas at a little roadside store. Checking out the unique items being sold there Bert noticed one could purchase an "empty bag of rocks".

Back to Roswell to get in the Mooney and head north. First stop was in Lamar, CO (KLAA) for fuel then on to Rapid City. A weather system moved into South Dakota so we spent an extra day/night there. Following morning with low but sufficient ceilings and visibility for VFR it was over the badlands to Williston. We did our customs advising phone calls etc then back to Regina.

If you have any adventures you would like to tell the members about please write up a short story and send it to: aaa154sask@gmail.com

Members Projects – By Ron Wood

In 2008 I purchased my Zenair CH601HDS as a flying aircraft with 503 hours on it. The plane was equipped with a Stratus Subaru EA81 auto conversion engine which was said to produce 100 HP. At the time the engine was well supported by Stratus however I was never able to get the problem of it running too rich resolved. Leaner jets in the Bing carbs caused excessive EGT readings so I ran it rich and did frequent plug cleanings.

Eleven years on and 150 Hobbs hours later trouble arose on with excessive EGT readings on the right exhaust, extensive trouble shooting, carb cleanings and checking manifolds for leaks brought no resolution to the issue which would never manifest itself on the ground. There were lots of one circuit flights the spring of 2019. By this time Stratus Subaru was long gone and the only support I could find was Ram Racing Engines out of North Carolina. The owner there was never a fan of the dual Bing setup on a Subaru engine and strongly

suggested I look at single carb and manifold setup. As luck would have it that summer we ended up at AirVenture and the opportunity to buy a ROTEC TBI (Throttle Body Injection) system presented itself. The ROTEC TBI was only \$800 where as a rebuild kit for the Bings ran \$500 (for a dozen O-rings, 2 diaphragms and a little hardware). The impulse buy was made.

Another \$800 and a new custom built manifold was on its way from North Carolina. The changeover was a lengthy process requiring re-fabricating alternator mounts; rerouting coolant hoses adding mixture and primer control cables as well as reworking the throttle cable. Working in an unheated hanger, relying on hard to start generator for power also added challenges but by spring of 2020 I was ready to tie the tail down and start full throttle testing. The only adjustments on the Rotec TBI are the idle mixture screw, idle throttle stop and wide open throttle stop. Should be easy and quick to adjust right? Well that wasn't the case. Turns out the idle screw also affects the mixture at full throttle, after a hour or two of ground testing I was ready for the first flight. After years of running the Bing carbs with no mixture control it took a little getting used to fiddling with the mixture but the first couple of short flights around the strip went well.

The next flight further out from Disley provided some unwanted excitement, 8 miles to the north in the Regina Beach area the fuel pressure meter started bouncing wildly from 2 to 5 PSI . My first thought was fuel leak! Changing from right to left or both fuel pumps had no effect, but going to full idle settled the pressure back to a normal 5 PSI. The short flight back to Disley was somewhat tense but uneventful. On the ground everything checked out, no leak and full throttle ground run up was normal. Further test flights around the Disley airstrip resulted in the problem reappearing about 20 minutes into the flight.

Support from ROTEC was virtually non-existent as they were in hard COVID 19 lockdown. Changing out of fuel pumps had no affect but inadvertently offered a clue. The left and right pumps run about ½ a PSI different pressure, on one run up I happened to notice switching to the lower pressure pump caused a significant leaning of the engine on the AFR gauge. When I finally got a response from ROTEC they admitted the TBI runs best with about 3 PSI even though it is advertised to work from .5 to 15 PSI.

Installation of a fuel pressure regulator to bring the fuel pressure down to 3 PSI has resolved the bouncing pressure issue and helped with ease of tuning. I currently have 20

hours flight time with the regulator installed and all is working well.

Overall I'm happy with the ROTEC TBI but have lost about 100 RPM at full throttle on takeoff, so power is down a bit. I like the increased control with being able to adjust the mixture in flight, cruise fuel consumption has dropped from 5 GPH to 4.2 at 4000 RPM so it is even more economical to fly. For more information see:

<https://www.rotecaerosp.ort.com/tbi>



Bing Carb Setup



Rotec TBI Installed