

RVator's Log

Newsletter of the Twin Cities RV Builder's Group

Shop Notes

- Doug

September 2023

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Upcoming Events

TC RV Builders Fall Bratfest. Stein Air's hangar in Faribault,

Saturday, September 16 at noon, details on page 9

Minnesota Wing Van's Air Force

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Last issue we talked about the early days of the Minnesota Wing. Let's continue the journey...

In the early 90's, the potential RV builder could choose between the single-place RV-3, the two-place tandem RV-4, or the side-by-side RV-6. From the beginning, I was enamored with the -4. A single placer wouldn't cut as I liked to take a passenger along and for some reason I thought the RV-6 was ugly (OK I just offended a large portion of the membership... sorry!!)



In the early 1990's club president Gary Novotny was working hard on putting the finishing touches on his RV-4. It made it's first flight in 1991. It was a jewel. 160 horsepower with a wooden prop, it was light and sporty and was the perfect RV-4. So perfect it won a major workmanship award at Oshkosh in 1992. But Gary was more of a builder than a pilot and shortly thereafter, he decided to sell his -4 and pursue other interests. He left aviation behind and "retired" from the RV world.

Gary sold the RV-4 to a gentleman by the name of Skip Pease who jumped at the chance to own one of the best RV-4s around. The downside was he lived in Hilo, Hawaii. Hmm... somewhat out of the normal operating range of an RV-4 based at Lake Elmo.

There was an aircraft exporting business operating out of Buffalo, MN and Gary contracted with them to take the RV apart, put it in a big box and ship it to Hawaii. Wings and tail feathers were removed, all was carefully packed and secured and N46B was soon on it's way west, first by truck, then by rail to the west coast and then by ship. A month later it arrived in Hilo.

But... the new buyer Skip soon discovered that the RV did not survive the long trip unscathed. The shipping company had removed the vertical and horizontal stabilizers. The VS is attached to the fuselage with number of bolts which also hold the

tailwheel assembly in place. After removing the tail feathers, they had attached the tailwheel to the floor of the shipping container but did not tighten the bolts holding the tailwheel assembly in place. As the crate bounced along the country first on a truck and then a railcar, the loose bolts had elongated the holes which were now misshapen and hardly up to



Tom on Hilo circa 1993. Putting out an early RV "fire"

aviation standards. And the rear bulkhead was cracked. So who you gonna call? Tom Berge of course!

Tom and I hatched a plan. Skip was going to pay for Tom's airline ticket to fly to Hilo. Since at the time I was working for Northwest Airlines, I'd fly along on standby and assume the roll of Tom's tool holder guy. The adventure begins...

Details were laid out and shortly we were on our way for our RV rescue mission to the Big Island. One advantage back then to flying as a standby employee is that I could snag a first class seat if there was one open. Ask me if I felt guilty as I stretched out up front with a steak dinner and wine while Tom struggled to open his bag of peanuts back in steerage. Arriving in Honolulu, we transferred over to Hawaiian Air to hop on the shuttle down to Hilo.

After a night catching up on our jet lag we arrived at the Hilo Airport and Tom set to work. Of course, he had brought his mobile RV repair tool kit along with the a spare rear bulkhead which he suspected needed to be replaced. Hangars are few and far between in Hilo and the RV-4 was tied down outside so all the work was done out in the open. On the east side of the island it rains about every couple hours so that was a factor but work progressed pretty quickly. By the next day, the new bulkhead was installed, and all was repaired good as new. I headed back to the states and Tom stuck around a couple extra days to check out the Big Island.

For several years thereafter, 46B was the only RV-4 on the islands. Skip sold the RV later on and eventually it ended up back in the states where today it is based in California.

Since then I have tagged along on many of Tom's repair missions. 30 years later he is still at it!!!!!

HNL - a good place to visit

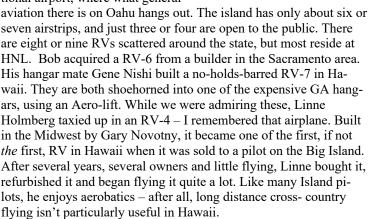
- Ken Scott

Editor's note.... In researching the backstory of N46B, I ran across a rather interesting piece about RVs in Hawaii in a 2009 issue of Van's newsletter "The RVator". At the time Ken Scott was the editor and he wrote an article about a trip he had made to Oahu earlier that year. There he met several RV pilots then based in the islands (including Bob Justman and Linne Holmberg who then owned 46B). We pick up the story as Ken is swapping tales with Bob at his hangar at the Honolulu Airport.....



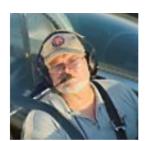
Hawaiian captain and RV pilot Bob Justman has spent thousands of hours flying over the ocean. Then, one day, he went swimming...

Later that week, Bob met us at the back side of the Honolulu International airport, where what general



After admiring the RVs and swapping surfing stories with Linne, we had a late breakfast with Bob. Here's a man with a long and varied flying career – including several hundred solo trips from Hawaii out to French Frigate Shoals and back in Beech 18s and Aztecs. Haul your world atlas off the shelf and contemplate that! I asked him about a tale I'd heard several years ago concerning an RV-8A ditching in the ocean between Oahu and Kauai.

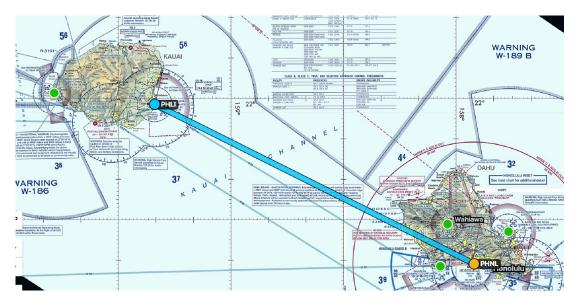
"All true," said Bob. "That was me." Oh...



So, how did that go?

Well, said Bob, (and this is how I remember his story, but I didn't record it. I just sat there listening while my eggs got cold. I hope Bob will forgive me if I miss some of the details...) "I'm about half way across the channel at 5000' or so. The airplane hadn't flown in a while, but it checked out ok, and after an extensive run-up I decided to make the 35 minute trip. I put the required life vest under the seat and took off. A little more than halfway across, the power slowly fell off and the rpm dropped down and down, toward idle. Nothing I did with the throttle made any effect. I realized that I was going to get wet. I've spent a lot of time in the ocean, swimming competitions in rough water, so I figured if I could get out of the airplane, staying afloat and alive would be relatively easy.

I notified ATC and they confirmed that they had me on radar. I started down. The engine ticked over smoothly at a few hundred rpm. Way back on the edge of my concentration, I heard ATC contact an Aloha 737 and advise him of my position. Into the wind and swell, flaps down, I slid the canopy all the way back. In a few seconds, I felt the main gear tick gently through the tops of waves.



Then there was a blur of motion and an incredible bang. After a couple of seconds of confusion, I realized the airplane was inverted. I was twisted around in the cockpit, slightly snarled in the harness. The canopy was now closed, and the windshield was gone, so the cockpit was full of water and I was instinctively holding my breath. I reached for the harness buckle and couldn't find it anywhere. The seconds went ticking by as I struggled to get free. Finally, my hand felt steel and the belts were off. I reached for

the canopy handle and yanked it aft.

It moved about four or five inches and stopped!

Stopped solidly. I couldn't budge it. I guessed that the rear fuselage or the canopy frame was distorted by the force of the canopy slamming shut, or the impact of the airframe on a planet-full of salt water. Upside down, holding my breath and having no idea if the airplane was floating or sinking, this structural analysis was not comforting.

As a last ditch effort, I jerked the canopy closed and used all my strength to slam it open again, hoping that it would get by whatever was stopping it. Even as I did it I knew it was risky because it might jam so solidly that I couldn't get it either open or closed. It jammed again, but this time there were a few more inches between the canopy bow and the roll bar. It was enough – I don't remember the details, but I came to the surface between the wing and the horizontal stabilizer. The airplane was floating, wheels up. The winds and swells were relatively light, the water was Hawaii warm, and I was alive.

However, I was a long way from solid ground, and my life jacket was still under the seat. Looking at the floating airplane, I thought that if I could support myself on the cowling, I could save a lot of energy. I knew ATC would have somebody on the way – probably had them enroute before the splash died down. But I also knew that trying to find a small airplane floating in a large ocean is a difficult thing and that it might be a while before anyone showed up. Any support I could get increased my chances, so I swam around to the nose and slid up on to the curving cowl bottom.

My weight disturbed some delicate balance. In a few seconds, there was a gurgling sound. The nose dipped and the airplane sank out from under me, headed for its last landing on the ocean floor. I rolled onto my back, pointed my head into the swell, and went into survival mode, sculling slowly, staying afloat with minimum energy expenditure. A dot on the horizon resolved itself into a Boeing 737 – the Aloha flight had turned back and dropped down to two or three thousand feet. They circled, about a half mile away. Now that the RV-8 was gone, I had no dye, no life jacket, no raft. I knew that the chance of anyone on that airplane spotting my bobbing head amongst the waves was virtually zero.

What I didn't know was that the Coast Guard had a helicopter in the air on a training mission over the Honolulu harbor when I started down. They had plenty of fuel, so when ATC gave them vectors to my last position they were immediately on the way. You'll never appreciate the sound of rotors as much as I did, let me tell you. Forty-five minutes after "splashdown" I was airborne again – one lucky guy."

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TCRV Builders News

- Doug



Jerry Altman has moved his project to Lake Elmo and is putting the finishing touches on his RV-7A in a Thangar on the south side of the airport. Wings have been trial fitted and he is in the process of connecting wiring and plumbing. He's looking to firing up his fancy instrument panel soon.

Speaking of RV activity at Lake Elmo, **Bob Lupelow** has been hard at work on his RV-9A in the hangar row behind mine. Last I checked he was tackling the cowling which we know can be a "challenge." Keep at it Bob!

RV-9A aviator **Eddie Gwiazdon** has moved into a new hangar in that same row at Lake Elmo. I count 7 RVs in a hundred yard radius around us!

AND... welcome to these new members!

Jacob Anderson, Blaine, MN (jmandrse@gmail.com): Considering a build and hoping to connect with other potential builders in the area.

Russel Telker, Sturgeon Lake, MN: about to pull the plug on a RV-8 tail kit.

So you want to sell your RV?

- Doug

Some of our older members may remember Mike Eesley who built a beautiful RV-4. In the early days of my RV-4 build, Mike would take me flying in his just often enough to keep me fired up about how nice they flew. I told him if he ever considered selling it, let me have first crack at it. Well that someday finally came in in the late 90s as Mike wanted to build a RV-8A. I jumped at the chance to own 464EM as I knew it was well bult, had a screaming 180 hp Lycoming with a constant speed prop and would fill my RV-4 itch while I keep working on mine.

A price was agreed upon and on the appointed day, I flew NWA down to Tucson where Mike then lived. I was was anxious seal the deal but as Mike and I talked and looked over the airplane, he began to have second thoughts. He was concerned about his liability down the road since he officially was the manufacturer of the aircraft (remember you are not building a "Van's" airplane) and his name stays on it permanent as an "Eesly RV-4).



In my dumbness I had never really thought about that issue before. But I could see Mike's point of view. We hashed things over and we decided to call Mike's attorney and after a meeting with him, a Release of Liability was drawn up and all parties signed it and the sale was completed. Today N464EM is still flying out in Washington state.

A recent thread on Van's AirForce discussed this topic and contributor Dan Horton laid out some of the considerations one should make when selling your RV (and yes, someday you or your heirs will sell it). Here's Dan's post:

Sales Documents

- Dan Horton

I'm not an attorney. I spent most of my working career running auto dealerships, where limiting legal risk is a very practical management task. There is no absolute shield, but common sense and good paperwork can reduce the risk to very low levels.

Specific to homebuilt airplanes, the #1 error is failure to use a sales contract separate from the Form 8050-2 FAA Bill of Sale. Think of it this way...the 8050-2 is the *minimum* sales document acceptable to the FAA for transfer of registration. Our friends in OK City provide it as a convenience *to themselves*, as it ensures they get the basic information required to

do their job. It's not actually required. You could write your own bill of sale on any handy sheet of paper, and if it incorporates all the information on an 8050-2, it would be equally valid.

That said, in the airplane world everyone expects an 8050-2. So, give 'em one, but accompany it with a contract spelling out the details not found on the government form. There are samples available from EAA, AOPA, and other sources, as well as generic forms. Any of these can be modified to suit your particular situation, DIY or with the help of an attorney. The basics are...

Identify the parties.

Show consideration (i.e. state a price)

Describe the goods in detail.

Disclaim all goods not listed (i.e. if it's not listed above, it's not included).

Include a statement that the buyer has physically inspected the goods, or that he agrees he was offered a reasonable opportunity to do so, and he accepts those goods without reliance on any statement of the seller.

Include the phrase "Sold AS IS, No Warranty" (in bold, just as you see it here).

Spell out the physical point of delivery. When it moves from there, it's his responsibility.

Spell out the terms of delivery (for example, when funds clear).

Spell out the conditions under which you accept a deposit. If it is non-refundable, be sure to spell out two major points, those being "without exception of any kind", *and* a drop dead date after which you may keep his deposit and sell the airplane elsewhere. And BTW, cash the deposit check as soon as you get it.

Include a "Hold Harmless", a statement in which the buyer effectively agrees to be a firewall between you and any subsequent owner.

State any insurance in effect does not protect his interests. For example, you take a non-refundable deposit, but lightning strikes the hangar before he can return to pick up the airplane.

State any agreement regarding who pays property taxes or sales taxes. Details can vary a lot depending on location.

State a jurisdiction. Your state law may be more friendly to a seller, and anyway, if the buyer is from out of state, it's less convenient for him to be a problem later.

Include an agreement regarding attorney's fees, typically

"loser pays".

Include agreement regarding waivers, severability and entirety...meaning should you and your buyer subsequently agree to some variation, it doesn't change the rest of your agreement.

Signatures, with printed names and a date.

Ok, those are the basics. They're not necessarily all-inclusive, nor are they qualified legal advice. Some points are negotiable, others are not. Nothing is ironclad. You can still be sued. If you really did lie or cheat, you'll lose. The goal here is entirely practical; all parties agree on the rules, in writing, so no one can easily make up new rules later, and if someone calls foul, the referee has a reference.

Do not deliver an 8050-2 without a written agreement.

No written agreement? Buyer won't sign it? Exercise self-discipline...pass. Find a new buyer. With just a 8050-2, you may as well tape a bullseye to your back.

Editor note: I have sold two homebuilts and used the EAA's current form. Here's the link:

https://www.eaa.org/eaa/aircraft-building/builderre-sources/next-steps-after-your-airplane-is-built/liability-sale-agreement-for-selling-your-homebuilt#

What Our Members are Building and Flying

Mark Owen - an update

- Frank Huber

Since I last touched base with Mark Owen in November, 2021, he and his wife Naomi have been flying all over Wisconsin.

Since finishing the *Fly Minne-sota* challenge, except for MSP, he has landed at 124 of 125 of Wisconsin airports, except Camp Douglas. He has been awarded the Gold Level for his efforts



from both states. When he first started planning his airport visits, he tried to break the mass of airports on the map into groups that could be included into single daily flights. Usually 6 airports were the average, with the largest group of 13 in one very long day.

Mark flew his RV-12 down to Poplar Grove, IL airpark, where he had his aircraft painted. Mark assisted with the disassembly

and reassembly of his aircraft for the painting. You can see from the picture, Mark came up with a sporty clean design.



Mark's newly painted RV-12

Mark says his favorite grass strips were Bowstring and Sleepy Eye. He really enjoyed the awesome Fagen Fighters WWII Museum at Granite Falls. He says Broadhead, WI has a nice turf strip and a very nice museum on the field. Mark and Naomi took advantage of the available courtesy cars at many airports to visit the towns and get lunch. They joined two RVs, Tom Berge (RV7) and Kevin/Paula Monson (RV9) on a cross country trip to Bowling Green, Kentucky in June this year.



Wisconsin cranberry bogs

Mark says the RV-12 has been such a great airplane to handle most any type of runway widths and lengths. Wisconsin has a paved runway that is 20' wide, he was thankful that the crosswind was light that day! He tries to fly at least once a week and throughout the winter if it is warmer than 10 Deg .F. He uses Mogas 90% of the time, usually Quik Trip 91 Nonethanol. He has had several broken exhaust springs that he

blames on some for the fair to poor turf runways. Otherwise he has only replaced a set of tires and brake pads.

He now has 456 hours on his RV-12!

Mark's fondest memories of the airports he has visited are the chance encounters and great conversations that happen inside the FBOs or on the ramps.



The "passport" mailbox at Verona, WI. Sometime you have to hunt around to get your passport stamped!

He finds spotting some of the turf runways from the air can be challenging but rewarding when you find the yellow cones on the perimeter. His next goal is to head west and complete the North Dakota and South Dakota passport books. Stay tuned....



Mark and Naomi after returning from Kentucky

Powdercoat after 17 years

-Pete Howell

Since the engine is off for overhaul, I took a real close look my vintage 2005 engine mount, inspecting the welds and the tubes. One thing grabbed my attention – there were "lines of corrosion" and much chipping on many of the tubes. These were straight lines on the tubes where the powder coat



finish was bubbling up and could be easily scraped off – Ut-Oh! This surprised me, as the plane is kept in a dry hangar.



Alex Peterson told me years ago that he was not a fan of the powder coat, because it could hide corrosion and make inspecting the welds difficult. Once again, he was spot on.



The process seemed simple – use paint stripper to remove the PC, inspect everything, clean up the corrosion and repaint. "Seemed simple" Well I tried strippers (insert dance club joke here) and they were messy and barely worked – not to mention you needed hazmat gear to use them. One thing I learned from the PC that I could strip off was that is was very flexible and would probably hide cracks – good to get this stuff off.

Next attempt was to burn it off – that was smelly and did not work well with MAPP gas, and I was worried about possible altering the heat treatment of the mount if I went much hotter. Sooooo.....

I made a few calls and found a media blasting business (Central Sandblasting) that could take the thing down to bright metal for \$200 – sold! How long? Done tomorrow! I drove that thing to Moundsview in the Miata immediately, garnering odd looks and smiles on I-35N! I did check some references, and they had done aircraft engine mounts before, so I felt pretty confident.



The next day I picked it up and it was a pretty speckled metallic finish and completely clean. I inspected all the welds and they looked great, so I cleaned it and with help from Bill Swanson, epoxy primed it – now it looked nice in grey, but it needed a topcoat. I am not a painter, but what the hey! I had a ½ qt of white urethane acrylic paint left over from the inside of my cowl and \$10 Harbor Freight HVLP gun. What could go wrong?

So I bunny suited and respirator-ed up and shot that paint. Let's just say Chip Foose is in no danger, but it came out looking as good as the original powder coat and should be easier to inspect.



Clearly this is not a simple project, but probably worth checking your mounts carefully and seeing if you have any corrosion starting.

The beer was for the celebration after painting......



Engine mount is Gizmo approved!!

* * * *

Twin Cities RV Builders Fall Brat-O-Rama

Saturday, September 16, 2023 – 12 noon

Stein Air's Hangar Faribault Municipal Airport, Faribault, MN

September is here and again we are again privileged to be invited to Stein Air's global world headquarters for great food and great hangar talk. If you an old veteran you know Stein and his staff have been supporting the RV community for a

LONG time with wiring harnesses and avionics. If you are a new RV builder, yes, you will be giving Stein most of your money so just get over it!

Starting

Your friendly host, Stein Bruch

All club members are welcome either driving or flying. Eating starts around noonish but feel free to drop in earlier to socialize away.

Directions:

For fly-ins:

Program your GPS present position direct to KFBL. The Stein Air hangar is located on the north ramp at the east end of the airport.

For drivers:

Go south on I-35 and exit at the Shieldsville, Rte 21 exit. Go west and you'll see the airport entrance immediately on your left.

Lost.... Call Doug at 651-398-1184



