

**Hatz of the month:**  
**Jeff Cain CB-1, NX8032Y**  
**...Denver, Colorado**

The choice of a subject for this issue's "Hatz of the Month" came about in an odd way. I was describing our association to the nice lady at Land's End, a company based in Dodgeville, Wisconsin, who helped me with our new logo gear. When I mentioned our annual gathering at Brodhead, she told me about nearby New Glarus, where her sister lived, and the bicycle trail that runs between the two towns along the Sugar River.

Somehow the HBA officers started a discussion about this, when Director West Jeff Cain said he had ridden along the trail in a bike he takes in his Hatz. To which Director East, Rob Lynn, challenged Jeff to prove what seemed impossible, given the size of the front cockpit of a CB-1. Jeff quickly responded with the images and details provided here.

The August 2016 issue of EAA *Experimenter* describes in good



*HBA Director West Jeff Cain soars above the Colorado landscape in his CB-1, an image from the August 2016 issue of EAA Experimenter.*

detail the history of Jeff's Hatz. Originally built by WWII combat veteran, the late Raymond "Ray" J. Hill of Baxter, Iowa in 1981, it was acquired by Jeff in 1995, only weeks after earning his pilot's license and his tailwheel endorsement. Not only did Jeff fly the Hatz from Iowa back to his home in Denver that spring, but in July of the same year he flew it to Oshkosh, stopping off along the way in Iowa to visit again with Ray and his wife Dorothy!

As the EAA article described Ray's original work on a plane the

builder dubbed *Eve*, as it began with a single rib: "Eve also showed how that early generation of homebuilders worked. Ray, and many of his friends of that age, used as much salvaged material as he could find. He lived close to the old Maytag factory in Newton, Iowa, and searched for any scrap metal he could use on the airplane. In fact, the firewall was apparently a galvanized piece of steel used to make the tubs in old ringer washing machines."

After selling his Hatz, Ray and Jeff stayed in closed contact. Ray also assisted another local Hatz builder, Ron Sieck, who had chosen the plane after seeing Jeff's plane, not aware that it was built by his neighbor Ray. Ron's Classic flew two week's after Ray's death in 2007, and went on to win Grand Champion Plans Built at AirVenture 2008.

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## The View from Above

**Jeff Orear, President**  
Hatz Biplane Association



want to thank Rick Shultz and Sam Watrous for their presentations at the event.

Plans are in the works for this year's Pietenpol/Hatz fly-in, as well as the HBA presence at AirVenture. I'm making a plea for volunteers who may be arriving early at Brodhead to help set up our canopy tent. A new twist that has been discussed is having a cocktail hour/mixer on Friday night at Brodhead prior to the local EAA chapter's evening cookout. Just a way for us to gather and enjoy each other's company after flying for the day has ended. We may schedule going to dinner as a group at a local restaurant on Saturday night as well.

I have also contacted Charlie Waterhouse, chairman of the Vintage Forums and Type Clubs

regarding our having a display table and forum at AirVenture. We are signed up for a table, so we will be needing volunteers to man it Monday through Friday, 12:30 to 5:00PM for display of construction plans the HBA makes available, sales of t-shirts we will have on hand, and to answer any questions from prospective builders. We will also host a forum on Tuesday, July 27th at 9:00 am.

After a year of cancelations of most of our favorite aviation events, it feels so good to be making plans to see beautiful airplanes, and meetup with our aviation friends once again.

***Here's to a CAVU 2021!***  
***Remain Calm and Hatz On!***

***Jeff Orear***

**T**he first major flyin of 2021, Sun 'n Fun, is now in the books. Good to see a semblance of normalcy beginning in the aviation world. I hope those of you that attended had an enjoyable experience and that you had a chance to attend the luncheon hosted by Bob Beaty. I want to extend a special thank you to him as well as Kent Misegades for organizing this, the first of hopefully an annual event for Hatz enthusiasts at SnF. I also







*Jeff has criss-crossed the country in Eve, his Hatz CB-1. Longest was a trip out to see a lady in the New York harbor that you might recognize...*

As the story continues: "In spite of their loss, Jeff and Ron still met up at fly-ins, and with Ron's airplane flying, conversations turned to the 27-year-old Eve. Knowing Ray and Dorothy the way he did, Ron and his wife, Margaret, had a proposition in honor of the couple. "They were like our second family—another mom and dad to us," Ron said. "We decided we should take [Eve] in under our wing and do the restoration, and I felt that, personally, I wanted to do it for Ray and Dorothy."

"After four years, the airplane that arrived in a rental truck flew home on its own in 2013. "Jeff says it flies better than ever," Ron said. "That's a good compliment, from my standpoint anyway." "I was so pleased," Jeff said. "It's Ray's airplane and it's Ron's airplane, merged. It's 'back home.'"



*Jeff Cain, Dorothy and Ray Hill at Blakesburg, Iowa in 2005.*

Quite a few improvements were made during the restoration. "Ron used a similar color, only a shade darker. He also built new main gear that incorporated 3-inch taller legs from newer CB-1 plans that keep

the tail gear from touching first on three-point landings. He also built a new engine mount that eliminated the pitching up of Eve's nose, increased the wheels to 700-by-6.0, and added wheelpants that fit the new size.



*Ron's first Hatz ride, with Ray buckling him in and Jeff looking on. Ray also served as Ron's EAA Technical Counselor for his build.*

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*Mr. Raymond Hill makes his last flight in his beloved Eve, August 8th, 2000. What a legacy he has passed on to Jeff Cain!*

Ron also replaced the cowl and nose bowl, the aluminum around the cockpit openings—including reinforcing it, as is common now with new projects—and added a stainless steel exhaust. In addition to the baggage compartment behind the pilot's head, he also added a second one below for bulky, light items, such as sleeping bags."

"Jeff had already upgraded the engine, rebuilding the O-290 as an O-320 to increase gross weight and performance in the Mile High City, but they added a higher-performance Sensenich climb prop, installed new wiring and fuel systems, ran new throttle, carb heat, and mixture cables, and replaced a single master cylinder and reservoir that came from some sort of airplane or another with individual cylinders for each brake."

When the fabric was replaced, Jeff and Ron decided to leave the color scheme close to

original. As Ron describes things: "'Jeff was pretty set on that he wanted to keep it looking like Eve," Ron said. "We wanted to do some upgrades but we wanted the average person who knew the airplane to be able to walk up to it and say, 'Oh, that's Eve.'" That started with the paint; Ron used a similar color, only a shade darker." The results of the restoration are shown in the article and the images here.

Back to the original motivation though for choosing Eve this month: Clearly Jeff Cain is the kind of man who knows what he wants and does what it takes to get it done. How many other owners of an open-cockpit biplane would make the long flight from Denver to Oshkosh, let alone only a few months after starting to fly? And how many would bring a bicycle along?

Wait, what, a bicycle in a Hatz? Maybe hung between the flying wires like one sees canoes



attached to the pontoons of a Beaver float plane in Alaska? As Jeff explained his solution to a Doubting Rob Lynn: "The Brompton folding bike (world's smallest folder) is small enough to go in the front seat of a Hatz (note: triple bungs). Works best/safest if you can also pull the front stick. When flying cross country, you can land outside of town, pull out the bike and my backpack, pedal in to town and be fully independent. Also works great for fly-ins and exploring (like the Brodhead bike trail)."

"Folders are always a compromise between bike and fold, so it's not the world's best bike (furthest I have ridden is 25-35 miles in a day), but it is the ONLY bike that will fit in the Hatz (even with the front pit covered). Here are a couple of shots from some trips I took with the Hatz. Longest was a trip out to see a lady that you might recognize. When you come out to Brodhead I would be happy to show you how quickly and easily it folds. Lessons will only cost you two bits. P.S. - Bromptons are made in England and are now a little speedier than when I bought mine in 1998."

This heart-warming tale of three men and their wives in love with a Hatz named Eve had a tangible benefit to the author. My wife and I enjoy cycling, especially on the many Rails-to-Trails bike routes one finds

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around the country. In fact, on our recent trip to Sun 'n Fun we planned stops along the way in Beaufort, SC and Tavares, FL so we could do some cycling and flex our aging joints. (Rails-to-Trails have the added benefit of no steep hills to climb! Find them at [alltrails.com](http://alltrails.com)).

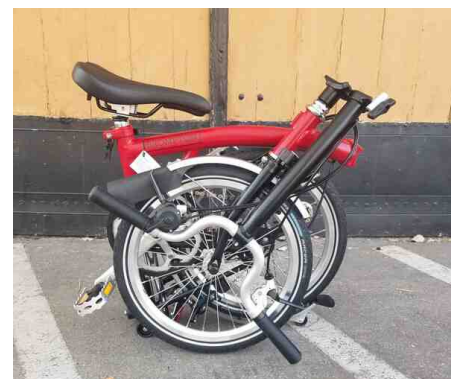
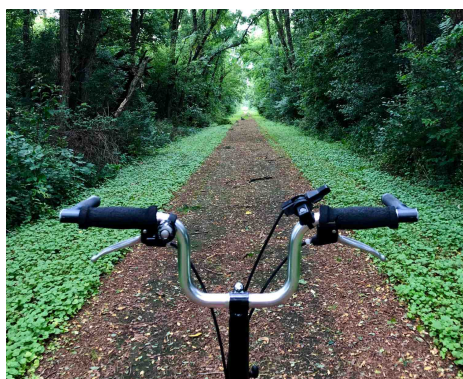
When I told Ulli that we could stay in New Glarus, WI and ride the bikes to Brodhead and back, suddenly a long road trip to the Midwest from our home in southern North Carolina started to look more attractive to her. Planning a stop in Rogers, Arkansas to see our daughter and husband on the way home sealed the deal.

What struck me most about the history of Jeff's lovely airplane are the number of lives that this collection of metal, wood and fabric has touched in a positive way. Can the spirit of a Hatz creator become the soul of his creation, even after he has left this Earth? The possibility of this happening gives this builder a reason to complete his and one day pass it on to the next generation.

Jeff commented on this subject: "Between Ray and I, Eve now has over 1700 hours on her and has flown over 700 kids of all ages (Young Eagles to Bald Eagles)."

Thank you Jeff Cain, Ray & Dorothy Hill and Ron Sieck for your legacy to the Hatz community.

**Kent Misegades**



*Top: Jeff's Brompton Folder fits nicely in the front cockpit and gives him great mobility once on the ground. Above left: Jeff's view of the Sugar River trail between New Glarus and Brodhead, Wisconsin.*



*Image from Greg Laslo's fine article "A Gift of Wings", from EAA Experimenter, August 2016. Photograph by Herrill Davenport.*

# HATZ BIPLANE ASSOCIATION

## LATEST CLUB NEWZ



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### More News from the Editor, Kent Misegades

- Thanks to **Jeff Cain, Les Clanton, Ed Cooper, Rob Lynn, Rich McCann, Jeff Moore, Gary Timbs, Andy Velazco, Chuck Smith, and Bernie Willis** for their contributions to this issue of the HBA Newzletter.
- Get your **Hatz embroidered logo gear** now from **Land's End** at <https://business.landsend.com/store/hatzbiplane/> See below.
- An **archive of HBA Newsletters** can be found now at [aerosouth.net/hba](http://aerosouth.net/hba). This page is hidden from the general public.



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Vistaprint coming soon!**

The NEWZLETTER is published on a regular basis by the American Hatz Association dba Hatz Biplane Association, founded by Lorin Wilkinson, Past President, Emeritus, for Owners, Builders and Lovers of the Great Little Biplanes Inspired by John Hatz.

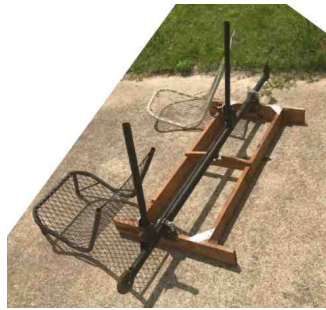
More than **50 YEARS of Happiness**

Hatz CB1 Kelly-D Hatz Classic Hatz Bantam Vintage Hatz



# HATZ BIPLANE ASSOCIATION

## MEMBER SHOPS & EVENTS



Les Clanton Jr. of Yazoo City, Mississippi (Jerry Clower country!) contacted us recently. He has too many projects and regrets having to part with his Hatz CB-1 project. The wings, center section, and ailerons are mostly done, the fuselage is nearly done, and the tail is ready for covering. Contact Les Clanton at 662-571-1595, [l.clanton1@icloud.com](mailto:l.clanton1@icloud.com).



HBA member North Shetter, who winters in Punta Gorda, FL and who attended our luncheon at Sun 'n Fun, recently polished his flying skills with the help of tailwheel instructor Barry Sutton of Port Charlotte, FL. Barry, an experienced commercial and instructor pilot, gives training from the Punta Gorda airport (PGD) from his Citabria. Contact Barry at 941-769-1451.

### 2021 EVENTS

April 9-11, Uncle John's Fly-In, Triple Tree Airport (SC00), Woodruff, SC, USA, [tta.aero](http://tta.aero)

April 13-18, Sun 'n Fun Aerospace Expo, Lakeland Linder International Airport (KLAL), Lakeland, FL, USA [flynfn.org](http://flynfn.org)

May 7-9, Spring Wings & Wheels Fly-In, Old Kingsbury Aerodrome (85TE), Kingsbury, TX, USA [pioneerflightmuseum.org](http://pioneerflightmuseum.org)

July 22-July 25, Hatz/Pietenpol Fly-In, Brodhead Airport (C37), Brodhead, WI, USA, [eaa431.org](http://eaa431.org)

July 26-August 1, EAA AirVenture 2021, Wittman Regional Airport (KOSH), Oshkosh, WI, USA, [eaa.org](http://eaa.org)

September 1-6, Antique Airplane Association Homecoming & Fly-In, Antique Airfield (IA27), Blakesburg, IA, USA, [antiqueairfieldia27.com](http://antiqueairfieldia27.com)

September 20-26, Triple Tree Fly-In, Triple Tree Airport (SC00), Woodruff, SC, USA, [tta.aero](http://tta.aero)

November 12-14, Fall Wings & Wheels Fly-In, Old Kingsbury Aerodrome (85TE), Kingsbury, TX, [pioneerflightmuseum.org](http://pioneerflightmuseum.org)

*Please send details on any event that attracts biplane people to the newsletter editor, Kent Misegades.*

## Sun 'n Fun 2021

by Kent Misegades  
Hatz Biplane Association

Depending on your age and taste in music, the words "Back in the Saddle Again" might remind you of a late 30s Gene Autrey cowboy tune, or a rockin' 70s hit from AeroSmith. Either way, those five words pretty much describe **Sun 'n Fun 2021**: sport aviation is back in the saddle again!

Thanks to Sun 'n Fun Vice President and Hatz Biplane Association member Bob Beaty, two dozen HBA members gathered for a luncheon on Thursday, April 15th in Jo's Pavilion, an ideal venue located just within the entrance of Duffy's Campground and adjacent to Bob's very excellent RV campground site (wheels, not wings). Bob even arranged for a superb Cuban sandwich lunch, which he generously funded out-of-pocket. How do we get such fine people in our humble little organization?



Upon arrival we all enjoyed putting faces behind the names and email addresses, and learning about the status of our Hatz projects - the discussion was lively! HBA Secretary Rick Shultz, representing President Jeff Orear, and Bob Beaty thanked everyone for coming before introducing the special guest, Sam Watrous, owner of ScaleBirds, US importer of the popular Verner radial engines from the Czech Republic.



Sam described the history of Verner, a small company led by a father and son team since the 1990s. They started their business building small boxer motors before developing the current series of 5, 7 and 9 cylinder radials. "The company owners are gearheads, not marketing experts, and I found them by accident," Sam explained. "I have urged them to focus on quality, not delivery time." Buyers must be patient - current delivery times are 10 months to a year. By coincidence, just a few days before our luncheon Bob Beaty took delivery of his Verner 9S, which Sam Watrous had on display in his exhibit in Lakeland.

Anyone who has followed the aircraft homebuilding industry over the past 40-50 years knows that we've had our share of charlatans, especially among engine sellers and those who make scale warbirds. ScaleBird is the real-deal, however. Sam, a soft-spoken, serious person, mentioned that his day job is with Electric Boat, the world's foremost builder of submarines. His son, who is involved in the business too, is an industrial designer by profession. They set out initially to develop a kit for a classic warbird. Their search for a powerplant led them to Verner and their becoming the company's top representative.



Above: Jo's Pavilion was the ideal venue for HBA members this year and in the future. Left: Mr. T, Ted Tracy, came down from Cincinnati.

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## Sun 'n Fun 2021

by Kent Misegades  
Hatz Biplane Association

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The airplane ScaleBirds have chosen to recreate is a rare one indeed, a Curtiss P-36 Hawk, the radial-engine predecessor of the better-known, Allison inline-powered P-40 Warhawk. Why the P-36? "It is popular among players of the War Thunder video game, and we wanted to appeal to a younger group of builders and pilots."

As the images here show, the Verner quality is apparent. Sam mentioned that it makes use of commodity parts that are readily available globally. Bob Beaty's Verner 9S should develop 150+ HP from its six liter displacement, 7.8:1 compression ratio, nine-cylinder, direct-drive radial configuration, Sam explained.

Another new supplier of components to Hatz builders is Acme Aero of Mooresville, North Carolina. As described at SnF by Hatz builder Steve Miller of Dekalb, Illinois, Acme is providing him with a light-weight landing gear suspension that is based on the company's expertise in the US motorsports industry, which is concentrated in the Mooresville



Above: Bob Beaty (right) welcomes luncheon attendees. HBA Secretary Rick Shultz (above left), from Sidney, Ohio, attended with his wife Kathy and their grand-daughter Hannah. Left: Sam Watrous, owner of ScaleBirds, shows off Bob Beaty's impressive Verner 9S, just off the boat from the Czech Republic. Below: the ScaleBirds P-36 will also be powered by a Verner radial. A nice Hatz-hangarmate?



Above: Steve Miller of Dekalb, IL showed us his bare legs - his Hatz with a high-tech suspension from Acme Aero of Mooresville, NC, an important supplier to the motorsports industry and now the popular STOL community. Right: Steve Miller, Fly Like An Eagle!



area north of Charlotte. The author was invited by Goose Burger (his real name) of Acme to stop by for a visit, which he will report on in a future newsletter.

We learned a few other interesting tidbits from our discussions at SnF. For instance, Hatz owner Andy Velazco of Lake Spivey, Georgia, who attended the luncheon with his lovely wife Kathy, proudly showed us images of his new seat cushions which he made from buffalo hide! Andy described the challenges of learning how to sew the tough material. Judging from the pictures we saw, he has mastered those skills. We encouraged him to offer his services to others, and he did not immediately object to the suggestion.



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## Sun 'n Fun 2021

by Kent Misegades  
Hatz Biplane Association

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Jim and Julie Pantas of Finger, North Carolina, mentioned that they own a rare "Fat Hatz" (N89DG), whose fuselage is actually from a Piper Pacer! Jim is Southeast Regional Director of NASA - not the rocket boys, but the National Auto Sport Association. According to his bio: "We provide annual events for drivers to participate in High Performance Driver's Education, Time Trials and Racing at various tracks around the SE USA."

The winner of the longest distance attendee goes to Wayne Gerszewski of Park River, North Dakota! Wayne is building a Hatz Bantam, the popular Hatz variant from Hangar 10 Aero aka Mark Marino of Duluth, MN. Wayne commented on the status of his project: "I'm just getting started on the Fuselage covering, so after that it's the engine cowlings and paint. The engine is a Lycoming O-290 D2. I am currently busy with



Hatz Bantam builder Wayne Gerszewski travelled the greatest distance, from Park River, ND.



Above: Jim and Julie Pantas of Finger, NC, with Ulli Misegades of Seven Lakes, NC between them.

turbine engine prep for the my aerial application business, but can't wait to get back to the Hatz project."

Curious about his flying background, I asked Wayne for more details: "I flew full time crop dusting for 25 years and part time for the last 15. I have A&P, IA, CFII and Multi-Engine Ratings with 11,000 hours total time, 6,000 of which was Turbine time. Crop Dusting is the BEST FLYING of All." Wow - isn't it always true? Everyone you meet in aviation is more than they seem. That certainly applies to Wayne! Might we see the first crop-dusting Hatz Bantam emerge from his hangar one day?

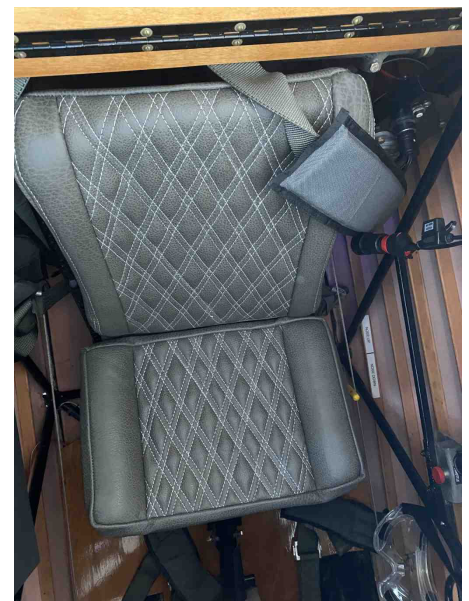


Andy Velazco of Lake Spivey, GA.



Speaking of the Hatz Bantam, Sam Watrous mentioned that he has sold four Verner Scarlett 7U, seven-cylinder, 124HP motors to Bantam builders.

Attending the first of what are hopefully annual events at Sun 'n Fun were: Kent & Ulli Misegades of Seven Lakes, NC; Steve Miller of DeKalb, IL; Sam Watrous of Uncasville, CT; Jeff Beam of Port Orange, FL; Ted "Mr. T" Tracy of Cincinatti, OH; Rick and Kathy Shultz along with their lovely (and patient) grand-daughter Hannah of Sidney, OH; Keith and Jennifer Givens (son-in-law and daughter of HBA Treasurer Jeff Moore) of Anderson, IN; Jim and Julie Pantas of Finger, NC; Jim and Jamie Smith of Albemarle, NC; Bob and Kathie Beaty of Lakeland, FL; Wayne Gerszewski of Park River, ND; Skip Komlodi of Winter Haven, FL;



Andy sewed these seat coverings himself from buffalo hide!

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## Sun 'n Fun 2021

by Kent Misegades  
Hatz Biplane Association



*continued from pg. 10*

Chuck Smith of Winter Haven, FL; Mark Hunter of Punta Gorda, FL; North Shetter of Menominee, MI, and Andy and Kathy Velazco of Lake Spivey, GA.

As a postscript to this report, I wanted to mention the town of Tavares, Florida, where my wife and I stayed during Sun 'n Fun. I recalled the articles on Tavares a decade ago in General Aviation News, when the town embraced seaplanes. Since then this seat of the lovely Lake County, FL has

literally transformed itself into "Americas Seaplane City", even trademarking the name. The successful manufacturer of the SeaRey line of seaplanes, Progressive Aerodyne, is located just outside town.

We stayed in a small cottage found online, riding our bikes from there all over town and along the expansive, pristine waterfront with its seaplane harbor and ramp, two flight operators (sightseeing flights and instruction), bike trails, aviation-themed playgrounds, restaurants

with live music, full of people enjoying themselves. The drive down from Tavares to Sun 'n Fun was an easy hour or so. Should your travels take you near Tavares, make sure to stop by and see a town that embraces sport aviation, so rare these days. With Sun 'n Fun demonstrating that Sport Aviation is Back in the Saddle Again, here's hoping that Brodhead, Oshkosh, Triple Tree and other upcoming events will be as fun and attract many of you.

**Kent Misegades**



*Andy Velazco's new buffalo-hide seat covers make his lovely Hatz Classic, s/n 1001, all the more impressive.*

**Progress Report**  
**by Chuck Smith**  
**Winter Haven, FL**  
**Hatz Biplane Association**



**A**ttending the HBA luncheon at Sun 'n Fun this year were the building team of Chuck Smith and Skip Komlodi of neaby Winter Haven, FL. The two are nearing completion of a Hatz Classic, and Chuck sent along this status report with a few pictures shown here.

Unfortunately we won't be flying the Hatz in, just got it out of the paint shop and waiting for the prop at the end of the month. We bought a CB1 project and modified it into a Classic using the Rotec Radial.

We knew we wanted a scallop design when we started the project. After looking at a lot of planes with similar designs we started cutting different size circles till we found something that would fit the spacing and went with it.

The covering is all Poly Fiber material. The white under coat is Poly Tone Insignia White, the silver is Aerothane Nevada Silver and the blue is Christian Eagle Blue.

**Chuck Smith,  
 with Skip Komlodi**



*Chuck Smith (top) and Skip Komlodi of Winter Haven, FL. Note QB insignia, implying they likely have other interesting aviation adventures behind them, and are sure to complete a fine Hatz soon.*





## Hatz over the Grand Canyon

by Rich "IKE" McCann  
Hatz Biplane Association

As you requested, here are a couple of pictures from my recent flight over the Grand Canyon. The trip was a confidence flight for me and the aircraft from KVG T (North Las Vegas) to KPGA (Page) passing by KSGU (St George). I've done it before when I flew to Monument Valley and back.

However, I've been out of the country for a few years and only got back late last summer. I am flying the airplane from NV to VA in late May and so this served as a dry run to confirm fuel burns, ensure no kinks with new avionics, and acclimate me back into flying in the cockpit for 5+ hours.

The route is gorgeous and takes you by the south end of Zion National Park, over Kanab, the Vermillion Cliffs, just north of Lee's Ferry, and finally Horseshoe Bend on the North Rim of the Grand Canyon. You have to be careful to stay out of the SFRA as climbing to the required altitudes is difficult and a waste of fuel.

Each leg is about 2.5 hours so the Hatz makes it ok, though it gets bumpy with thermal activity as the day goes on. It was a good day with great weather. I'm now looking forward to the big XC to Virginia.

I'm stationed in DC. My Hatz will be hangared at Shannon Airport in Fredericksburg (KEZF).

**Rich "IKE" McCann**  
**N22849**



**Progress Report**  
**by Gary Timbs**  
**Chino, CA**  
**Hatz Biplane Association**

**M**y Hatz Bantam is powered by a Continental C-90. The C-90 has an Aeroinjector carburetor. The starter and alternator is from B&C. The left mag is a Slick and the right one is an EMag.

The Hatz is covered in Oratex and fabric trim is semi gloss house paint from Home Depot. Aluminum panels and cowl are primed in green epoxy on the inside and white on the outside. Top coat is Cub yellow Aerothane.

The radios are made by Trig. Mode "S" transponder with Trig GPS for ADSB compliance. All gauges are "steam" type. The front seat has a mechanical oil pressure gauge, a tachometer,

altimeter, airspeed, and vertical speed so that the front passenger can fly when I don't want to.

I'm currently still in phase I flying. So far the hardest part of flying the Hatz is pushing it out of the hangar! Actually the first flight was about a year ago. The engine was about half life but had some problems so I had it rebuilt.

With all the pandemic problems and such I didn't get around to doing that until recently. I currently have about 10 hours on the airframe.

The Oratex is different. I have covered other aircraft using Poly Fiber, but I don't like dealing with the MEK. Oratex has two advantages. First, all adhesives are water based so there is no fire danger and no MEK. Second, it is pre-painted so none of that hassle there and no exposure to

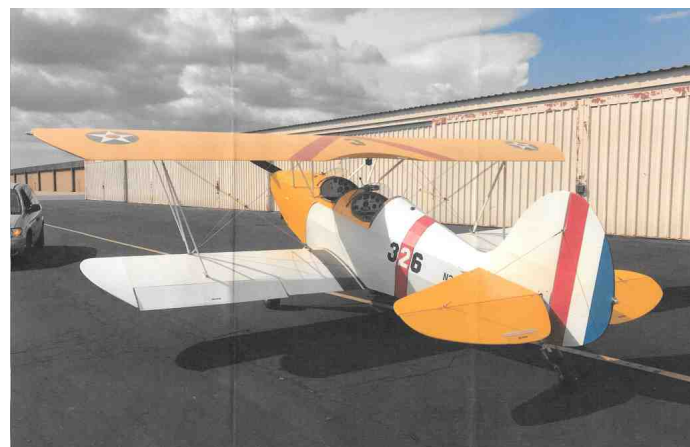


hazardous chemicals. The downside is that it's pretty expensive and requires a different process for application. It's like covering a very big model airplane. The paint scheme is based on the kind of trainer seen in the Army in the 1920s and early 30s.

I have covered some gliders in the past using the system developed by Ray Stitts, now offered by Poly Fiber: a 2-33 trainer and a Krosno two place. I belonged to EAA Chapter One with Ray Stitts for years.

The Hatz is hangared at Chino Airport in Southern California. Flying at Chino is flying at a WWII air field. "You're number two to land after the B-25".

**Gary Timbs**  
**Hatz Bantam S/N 326 N326HB**





## Poplar Grove Airport by Jeff Moore Hatz Biplane Association Secretary, Pendleton, IN, USA



**H**BA Treasurer Jeff Moore of Pendleton, IN, recently sent us this report from the 2020 Poplar Grove Airport's 48th annual Open House/Annual Fly In. This popular airport (C77) is located south of Poplar Grove, IL and to the east of Rockford.

I heard about the event from one of our chapter members who works for Poplar Grove Airmotive (PGA). [PGA is one of the largest engine overhaul shops in the country. The airpark and shop are owned by Steve and Tina Thomas, and grew out of what was once his dad's dairy farm, which Steve bought when his dad passed away].

With everything else having been cancelled, I thought "Why

not?". It's a three hour trip there and back [from Jeff's home base, Anderson Municipal KAID], so several friends and I planned a weekend adventure.

I left Saturday morning and had an uneventful flight there. I stopped at Greater Kankakee for fuel (KIKK) and then flew past Koerner Aviation, gave them a look see at 20 feet and proceeded on. Koerner is based on their own grass airfield, Kankakee (3KK) where they keep a Hatz.

Saturday afternoon and evening were spent at Poplar Grove with friends, meeting new people, looking through some "impressive" hangers and I even got a ride in a Breezy. If you think open cockpit flying is awesome, go for a ride in a Breezy. It redefines the term "pucker factor".

I spent the night in the

luxurious accommodations of a local pilot and arrived back Sunday morning in the "little blue car" (shown below), as he called it, for the festivities. If you grew up in the '70 and owned a Honda Trailbike, you know what can happen here...

Sunday dawned a perfect day! A clear blue sky, lots of sun and just enough of a breeze to make it comfortable. It was fun to be able to walk around and enjoy the sights, sounds and smells of a fly-in again. I even found Steve Miller's Hatz Classic on the field.

Hopefully we can continue to have events like this. As Lorin Wilkinson would have said, "A tip of the ol' topper" to Poplar Grove for hosting the event.

**Stay Hatzy - Jeff Moore**



*Clockwise from left: Jeff (rear) gets a flight in a Breezy; his ride on Sunday morning, Jeff's Hatz LB-1, which stands for "Lycoming-Powered Biplane 1"; Steve Miller's Hatz Classic.*



# Weight & Balance by Bernie Willis Hatz Biplane Association Wasilla, Alaska

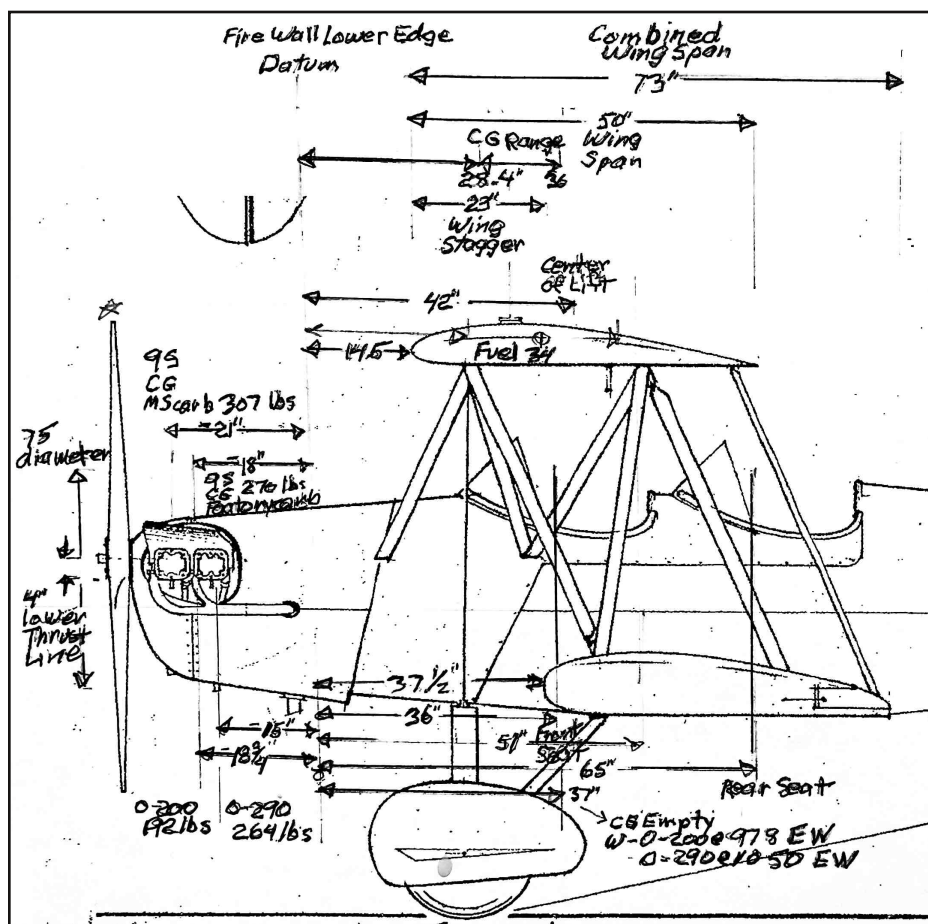


**W**eight & Balance has been a concern of mine since seeing a flight line of Hatz at Brodhead all showing nose down trim after landing. I believe Bill Davidson mentioned neutral longitudinal stability in one he test flew.

So I wanted to do some analysis before cutting tube especially when considering a Verner engine. This picture is what I see comparing both the CB1 and Classic plans. This is submitted for verification, I don't claim it to be exact so I'd like to hear from others who have different understanding of the details.

Both the Classic and CB-1 plans are skimpy on W&B details. The Datum lines are different but the empty weight CG is in the same place. The wings are located the same. But as far as I can tell the center of lift, the CG range and seat arms are not provided on either plan.

The seat arms should not be the center or back of the seat because your feet extend forward and are part of your own weight. To get my figures I made a simple wooden seat similar to that pictured in the CB-1 plan, mounted it on plywood long enough for my feet to be at the rudder pedal position, then with a pipe roller scooted back and forth until it balanced and marked that point. Then with a square and a yard stick, measured from that



point to the top back of the seat. The fuselage tube at the back of each seat became the basis for the arm of the seats. The other arms pictured on the drawing can be determined from the plans but In the process over several days I found mistakes I had made and perhaps there still are some. New or experienced eyes hopefully can catch and share them to prevent some serious building errors.

My goal was to determine the W&B without an engine from which its pretty easy to determine where to put any weight engine. I assumed no balance issues with the wings

and that the tail parts would be balanced with the various metal baffles, cowling and boot cowling forward of the wings. I am unsure if the empty CG as shown on either of the plans is the conventional empty CG of an aircraft ready to be fueled and loaded or something else.

In all my literature I can find no O-320 that weights 264 pounds, but there is an O-290 with accessories but without oil that does. Certified aircraft under CAR 3 did not include oil in the empty weight but FAR 23 certified aircraft do include it. What if any propeller was

*continued on pg. 17*



**Weight & Balance**  
**by Bernie Willis**  
**Hatz Biplane Association**  
**Wasilla, Alaska**



*continued from pg. 16*

included in the plan empty GC? I'd like to have a CG where any pilot weighing from 120 to 220 pounds could be in the back seat and still remain within the CG range. Once the engine mount is welded the battery position, propeller type and tailwheel size can still be adjusted to get the perfect balance but good planning sure beats cutting and rewelding.

I'm not judging other builders but suggesting the plans are void of some important details that would be nice to know. These can be determined but errors can creep in through misunderstandings and simple math errors that will compound. There are some on the plans. I've made some and discovered them later. I may not have found all my errors.

I did a lot of work on a customer's C182, new modified engine, 5 new radios, extended baggage, new fuel cells, some paint. Calculating new W&B was out of the question so weighed it. After three separate times to confirm it really was very nose heavy I called Cessna and learned from tech services that yes it probably was. Because from that model to the next without any airframe changes they applied to the FAA and were approved to move the foreword limit forward 1.5 inches. Now I know why it's almost impossible to keep the nose wheel off the ground when landing with two normal sized folk



*Above: Bernie Willis took this shot of Jeff Moore's Hatz CB-1 at Brodhead in 2011. Right: Close-up of the trim tab shoes nose-down trim was used, as Jeff confirms in this article.*



in the front seats!

E-AB is all about education. I enjoy learning and sometimes need to be taught by those more experienced than me. I put it on the Forum but so far no replies. Perhaps it worth circulating for more comments.

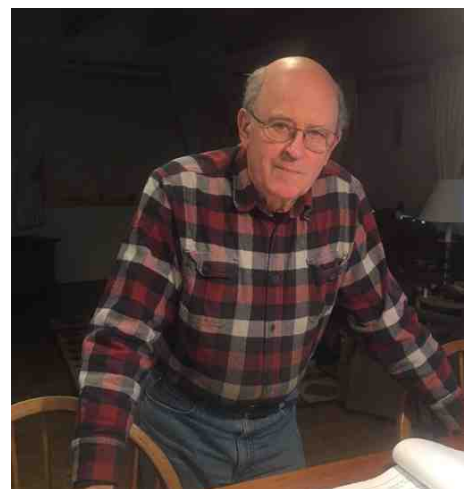
**Bernie Willis**

*Jeff Moore comments:* The forum has many discussion threads about W&B. When I did mine, anything other than an O-200 was unknown. I built mine to plans and I needed nose down trim. I have since raised the tail surface angle of incidence another 3/8" and it helped; although, not perfect. We associated it with the extra HP trying to pull it up toward the sky.

I measured all of my arms before covering and used the

center of the seats for them. Dudley's calculations just say where the c/g falls but not where the envelope is. Bernie, you have done a good job analyzing the issue and it may help others who are having the same thoughts.

**Jeff Moore**



*HBA member Bernie Willis, retired Alaskan Airlines Captain, an A&P, bush plane expert and owner of Grebe Lake Airfield (AK45) in Wasilla, Alaska.*

## Ed Cooper's CB-1 Austin, Texas Hatz Biplane Association



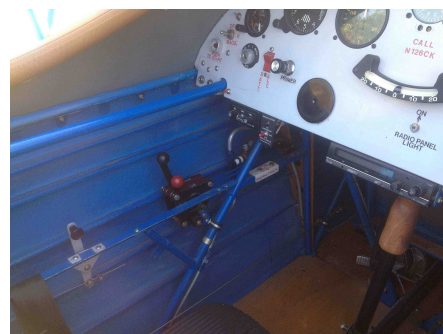
**H**BA member Ed Cooper of Austin, Texas was planning on flying to Sun 'n Fun 2021, but Mother Nature threw some thunderstorms in his path and he had to cancel his plans, to the disappointment but understanding of those of us in attendance of the HBA luncheon on April 15th. SnF Vice Chairman Bob Beaty arranged for special parking for the Hatz, which we are sure to exploit in 2022. Ed kindly sent us a few pictures though of his CB-1, with the following comments.

Kent, please know, I did not build the airplane. I am the 5th owner. The builder was an A&P, Kenneth R. Craighead, listed as Manufacturer on the FAA Certification, presented in 2006. He lived in east Texas. I tried, but was unable, to track him down. He is quite elderly and, I believe, now resides in a Dallas nursing home.

The plane is a Hatz CB-1 with modifications. The powerplant is a Lycoming O-320 D2J.

Although I live in Austin, Texas, the airplane is based in San Marcos, Texas (KHYI). A 30 minute drive from my home. The photos here were taken by my friends over East Texas, somewhere between Centerville, Texas (TE01) and Crockett, Texas (KDKR).

**Ed Cooper**  
**N126CK**






# Hatz Biplane Association

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Computer requirements: CD-ROM drive and software to read the newsletter (PDF version 1.5). Software is freely available from ([www.adobe.com](http://www.adobe.com)). Adobe Reader version 4 works fine, though Adobe Reader version 5 or greater is recommended for word search capability.

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Left: HBA members Jan and North Shetter stopped by to see HBA newsletter editor Kent Misegades and his wife Ulli in Seven Lakes, North Carolina on their way to their summer home in Menominee, Michigan. Jan is originally from Sanford, NC, not far from Seven Lakes.

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