

Wing Flap

Monthly Newsletter of the EAA Chapter 52
Sacramento, CA - **November 2021**

**Experimental
Aircraft
Association**



FROM The Left Seat - Gill Wright

As we approach the Thanksgiving Holiday this year, we have many things to be grateful for. We live in an amazing nation and state. Which, despite some of the 'problems' we face, is still one for the freest cultures on our planet. The unique aspects of aviation, its people, culture, technologies, and the evolutions since the early dawn of powered flight, has brought significant and healthy evolutionary changes to our World. The village of EAA is a large part of contributing to people's lives of aviation in the last six decades.

Personally, when I joined Chapter 52, some 15 years ago, I had no idea of what the journey would bring, the lessons learned, or the people I would meet. Never imagined a B-17 tour stop, or a Ford-Tri Motor visit to Sacramento. Let alone having a flight on either of those iconic aircraft, and yet that has been the truth of the journey.

But this joinery happens in a village of likeminded people, who have found the mysteries of aviation to be food for their souls, and a lifestyle to live in collaboration with others. This Fellowship of aviation is present when we gather for Pancake Breakfasts, airshows, heritage aircraft tour stops, youth programs, and flights with friends. All of these happen because of the people who make the aviation enterprise work to a Higher Order of Thinking Skills (HOTS), to quote a term from the FAA Flight Instructors Manual.

This concept of HOTS can show up in the most interesting ways sometimes. Like towards the end of October the Chapter was notified that our fourth initial candidate for a Ray Scholarship was a bit too young, and we had less than 10 days to locate someone to fill the spot. We had until October 31st to find such a motivated youth. Owen Hughes put the word out to the larger EAA village in the area of our search for a candidate, and providence brought forth a very motivated young lady Lilah Harris, who is now our fourth Ray Scholar. It was yet another proof of how the 'village of aviation' will meet the need when there is passion for a worthy cause.

We can get a lot done when we put our minds to a task together. As this Chapter has done, and will continue to do, amazing things in the Sacramento community in the years to come. The past, present, and the future we will collaboratively build, is what I am grateful for and express a heartfelt thank you to everyone for what we have accomplished.

As to chapter business, for our Chapter Zoom meeting on Tuesday, November 30th @ 7:00 PM, we will have a guest speaker Joseph Oldham who will speak on his development of electric flight training at the Fresno Chandler airport. He has done some amazing work, and will be very insightful towards the electrification of aviation that is progressing faster than most realize.

On December 11th we will have our annual Christmas dinner at Aviators starting at 12:30. So plan to bring gift for the annual gift exchange. The Christmas Party details will be emailed before the chapter

meeting, and mailed out with the annual membership dues and chapter ballot for board elections before the Chapter Zoom meeting. Given the nature of the Covid-19 limits on our meetings. For this year please bring your ballots to the Christmas party and we can have the final count on December 11th.

I look forward to when we gather on Tuesday evening at 7:00 PM,
Safe travels,
Gill Wright
President, EAA Chapter 52

FROM The Right Seat - Jim Hefelfinger

Wow, where did 2021 go?

Another year of zoom meetings, near daily checks on the pandemic and restrictions, isolation from social events/family and disconnection with chapter members and activities. Another hard year for all.

Activities – attendance at our zoom general meetings has been light - I understand it is NOT the same as a room of people. Spring potluck and fall were attended but a number of the “usual suspects” were notably missing. Please come back !!

We did have pancakes with a full schedule an improvement from 2020. Even got in a few planes washed. Great job guys.

Speaking of usual suspects I will be making individual calls to those we have not seen lately – checking in to see how you are doing.

To get us back on track with general meetings I am making a call out for someone to step up to get formal programs going each month. I will provide support to the person to get them started. Having a program is mandatory to keep the chapter moving forward. I suspect they will continue to be remote [zoom] at least for Q1-2 of 2022.

The Pleasant Grove HS program moves along with me now formally on campus as a “coach” after a number of administrative hoops– I even have a lavatory key ! The Aviation Club has been a bright spot with 22 students. Weekly Format is: Career awareness, recreation element introduced, theory/concepts and a project/Lab. Last Monday was a rubber band powered plane build day with Xacto Blades and Super Glue – much trepidation on my part. We get to fly them next week. Thrust/drag/lift/gravity.

The flight simulator project is ongoing with acquiring a new yoke & throttle quadrant along with donated stick and rudder pedals. The chapter has a current MS Flight Sim key supplied by National but has yet to have a machine to run it on. It is a 143G program and needs a serious graphics card. We also have a copy of an R/C Flight Simulator including a “transmitter” box. It will run on an older machine just fine.

On the leadership front- Recommend chapter leadership review the duties and responsibilities as a tune-up for the next year.- self review how we are doing to keep the chapter flame lit. See the EAA Page <https://www.eaa.org/eea/eea-chapters/eea-chapter-resources/managing-your-chapter> Scroll down to Chapter Officer Quick Reference Guide.

BTW – We need more diversity on the board/chair leaders. ... members too.

We will be sending out end of year announcements including the membership dues notice. Please return the envelope when you receive it – such things are easily lost in the holiday chaos.

Updates from Owen.....



VAA 25 YOUNG EAGLE RALLY - October 31st 2021, VAA 25 held their bi-annual Young Eagle Rally at Sacramento Executive Airport. Over 100 kids were given free aircraft rides and an educational introduction to the world of aviation. For many of these kids, it was their first time ever in an airplane – and for almost all it was their first time in a small general aviation aircraft. Launched in 1992, the Young Eagles program has now given over 2 million kids ages 8–17 their first free ride in an airplane. In addition to the ride in an airplane, the kids learn about all the major components of an aircraft and especially about how wings and control surfaces coordinate to generate controlled flight. These kids are signed up for a free EAA membership, and receive certificates for free ground school training – and even a free first flight lesson! After completing the first three volumes of the Sporty's Learn to Fly Course, Young Eagles qualify for a free first flight lesson at a flight school of their choice (\$130 value!)

RESULTS: YOUNG EAGLES WORKS! - Up until recently, the success of the Young Eagles program was measured by the number of kids flown – and no doubt – 2 million is a pretty impressive number of Young Eagle flights. But in one of the most interesting recent cases of social engineering, we are now starting to get numbers on the percentage of new folks getting new Private Pilot's Licenses that were originally Young Eagles – and the number is high! By 2011, 7.3% of new pilots had been Young Eagles, and that number has been growing rapidly ever since. It will be even more interesting to see how many of these kids move on up the ratings ranks – and what percentage of professional pilots they makeup.

EAA 52 members Gil Wright, Owen Hughes, and Greg Popejoy attended and volunteered at VAA 25's event. Gill manned the main ramp gate, Greg provided scholarly perspective, and I signed up one of VAA 25's new and promising kids to become one of our new and promising kids too (read below about our new Ray Scholar!). We are hoping to bring VAA 25 and EAA 52 back together to share more events, resources, and re-establish ties to the co-located EAA chapters.



Ray Scholarship Update – With a “use it or lose it” deadline of October 31st, we were in a tight spot. In September, I submitted Nicholas Theodorovic as our 2021 \$10,000 Ray Scholarship candidate. Nicholas has already begun ground school, and will be able to solo as early as February when he turns 16 years old. However, Nicholas is younger than the Ray Scholarship rules officially allow (you must be 16 and able to get your PPL within a year) and new management at EAA National said “NO” – with no wiggle room. Hopefully, we’ll be able to get Nicholas flying next year. But what now?

After consulting with VAA 25’s Ray Scholarship coordinator, Kim Owen, I met 16-year old aspiring pilot Lilah Harris at VAA 25’s Young Eagles event. The event itself was a tremendous success (see above) largely due to the dedicated efforts of volunteers like Lilah. After consulting with Gil (our honorable president) and Stan Lawrence (VAA 25’s Ray CFI), we decided to offer the scholarship to Lilah. We had to rush the application in that day very last day before we lost the scholarship – but with Stan, Gill, and Lilah’s hard work we got the application in and it was accepted by EAA National. Lilah has joined EAA 52, and will be contributing to our newsletter. I’m sure you’ll be delighted to meet her at our next chapter meeting. So,

... **Congratulations to Lilah Harris – our new Ray Scholar!**

Hello!

My name is Lilah Harris, I am a junior at St. Francis High School, in Sacramento California, and I am also the proud recipient of the Ray Scholarship from EAA Chapter 52.

I have been interested in aviation all my life, and it has been a dream of mine to get a pilot's license for a very long time. In late August, I became involved with EAA Vintage Chapter 25, and started participating in their Young Eagles Build, Maintain, Fly program on Saturdays. It has been an immensely gratifying experience thus far.

I have been able to work on maintaining and fixing various airplanes, as well as help with the construction of a Safari 400 helicopter. One of Vintage Chapter 25’s leaders and CFI’s, Stan Lawrence, has recently begun training me in a Cessna 150, and I am starting to log hours consistently.

In early November I was fortunate enough to be awarded with a Ray Scholarship from EAA Chapter 52. In the short amount of time that has passed since then, I have begun my flight training with Stan Lawrence. So far we have worked on taking off and landing, as well as the four basics of turning. With support from Stan, I am beginning to overcome my apprehension on the radio. I am very excited to continue my training. If the weather cooperates, Stan believes I will be able to solo by Christmas.

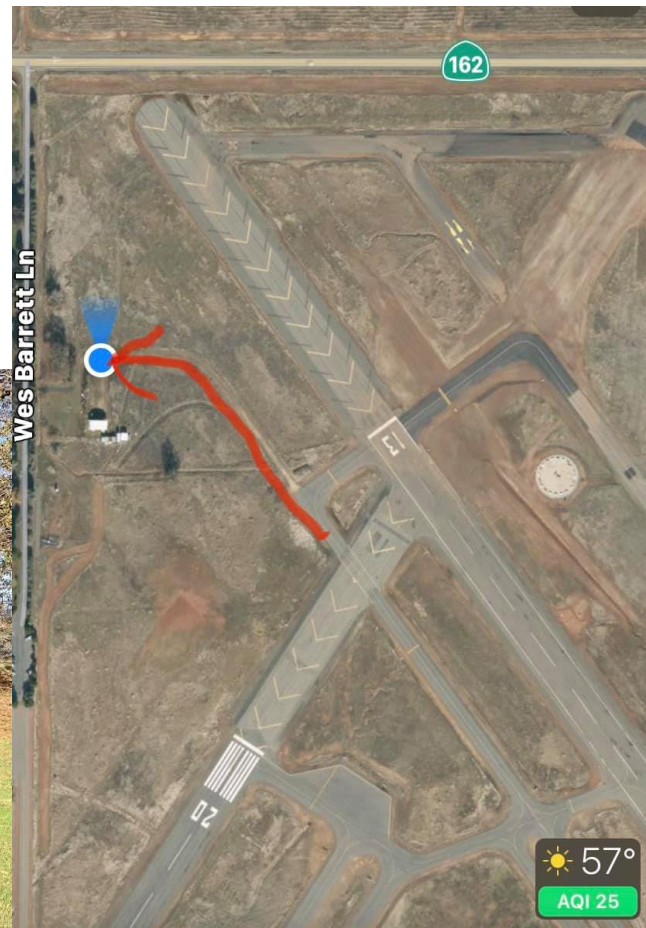
Aside from aviation, I spend my time painting, playing piano, listening to music, and helping my dad build an apartment.

Respectfully,
Lilah Harris



Did you know EAA chapter 1112 at KOVE (Oroville Ca) has an airplane camping area? We have power, running water, a complete bathroom facility and a restaurant within walking distance, just follow the dirt taxiway west of the numbers of Runway 13.

If you want to use this area just call ahead 530-370-6266



FAA Proposes Medical Requirements for Commercial Hot-Air Balloon Pilots-

Tuesday, November 2, 2021

WASHINGTON— The Federal Aviation Administration (FAA) proposed [a rule](#) today requiring commercial hot-air-balloon pilots to hold medical certificates when operating for hire. The rule would mandate a second-class medical certificate, the same standard required for commercial pilots.

“Balloon pilots are responsible for the safety of their passengers,” **FAA Administrator Steve Dickson said**. “This proposed rule would ensure that balloon pilots meet the same medical requirements as pilots of other commercial aircraft.”

Currently, commercial balloon pilots are exempt from the medical requirement. In the FAA Reauthorization Act of 2018, Congress directed the FAA to revise the medical certification standards



for commercial balloon pilots. The draft rule also addresses a National Transportation Safety Board (NTSB) recommendation that the FAA remove the exemption.

The FAA in recent years [took steps](#) to increase the safety of hot-air-balloon tourism by working with the Balloon Federation of America (BFA) on an accreditation program. The program includes voluntary standards for pilots and operators and offers multiple tiers of BFA safety accreditation.

The FAA will publish the draft rule in the Federal Register in November, and the public will have 60 days to provide comments. After the comment period closes, the FAA will review all comments before publishing a final rule.

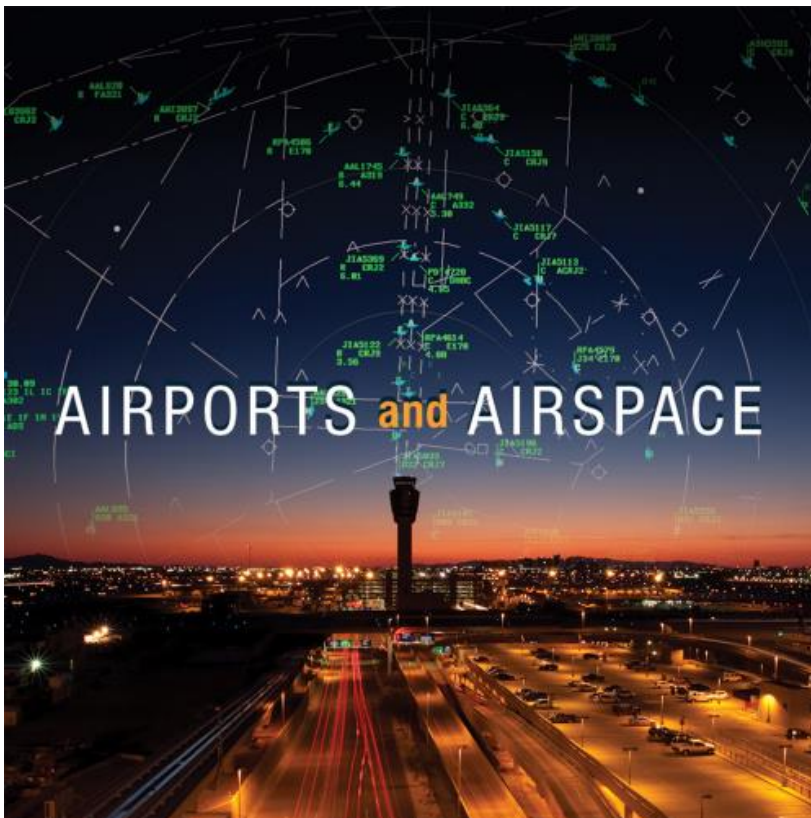
Start an argument..... How Wings Work -

<https://www.youtube.com/watch?v=QKCK4IJLQHU>

Bernoulli vs Newton's 2nd and 3rd. Misconceptions of so many = Coanda effect ??

Each has a partial explanation but need more details. Euler or Vector Newton

FAA Unmanned Aircraft Systems Integration Office- By Peter Sachs,



Drone pilots will have even more options than before when they seek permission to fly in controlled airspace this fall. The Low Altitude Authorization and Notification Capability, or [LAANC](#), is getting a big enhancement that will enable drone pilots to operate in even more low-level airspace than before — and to know that they're doing it safely.

Currently, the FAA divides the airspace around nearly 750 Class B, C, D, and E airports into grids that are each about one square mile. Each grid cell has a maximum safe UAS (unmanned aircraft system, or drone) operating altitude, on which FAA air traffic facility staff, controllers, and managers collaborate to determine. This is the highest altitude that is deemed safe for UAS to operate within each cell with an automatic approval through LAANC. These altitudes can range from zero (no flights

allowed without further coordination, such as in areas above and immediately adjacent to airports) to 400 feet above ground level (AGL). The grouping of these grid cells comprises the [UAS Facility Map](#),

or UASFM, for a volume of controlled airspace. “The FAA is calling the enhancement ‘Quad Grid,’ explains LAANC Project Lead, Victoria Gallagher.



Figure 1: Current one square mile UAS Facility Map cells around Chicago Executive Airport (KPWK) are shown in green. With Quad Grids, represented by the additional blue lines, cells will be much smaller than before.

At present, drone operations can't be automatically authorized in some cells away from airports, especially where hospital heliports are located, or where approach and departure paths clip one corner of a cell. That effectively locks out drone pilots from an entire square mile, when generally only a smaller area needs to be protected for crewed flights.

Once Quad Grids go into effect in the fall of 2021, each of those previous grid cells will be split into fourths, making the new Quad Grid cells about 1/2-mile on each edge. This holds the potential to

safely open up airspace for drone operations in hundreds of locations across the United States by allowing UAS flights in some of the newly subdivided cells. Because each LAANC UAS Service Supplier (USS) visualizes airspace differently, UAS pilots may not immediately recognize the four-fold increase in the number of UASFM grid cells, but under the hood, that's what will drive the difference in how airspace authorizations appear.

Figure 2: Consider the Class D airspace near Chico, CA. The UASFM altitude limit in two grid cells in the southern edge of this airspace is zero due to a hospital that falls within both grids. Following the transition to Quad Grids, many of the resulting eight cells will have a much higher altitude limit. Therefore, more of the Class D airspace would be available for automatic approvals. The FAA has planned an assessment to collect metrics and assess benefits in areas such as this one following the transition to Quad Grids.



Since its inception in 2017, the LAANC system has worked well for the FAA and many commercial drone pilots who operate under part 107, as well as recreational pilots flying under Title 49 of the U.S. Code, [Section 44809](#). In fact, the FAA's approved LAANC service providers have now processed more than 700,000 authorizations, the vast majority of which happen automatically and in a matter of seconds. But UAS operators have been asking for more flexibility, and that's where Quad Grids come in. "A square cell that is a mile on each edge doesn't naturally fit well with airspace boundaries, which are often circular," Gallagher notes.

The Quad Grid upgrade also gives air traffic control facilities more flexibility and precision when determining the maximum altitudes to set for each UASFM cell in their airspace. The current grid works well for airports with east-west and north-south runways, but facilities must be overly conservative to protect airspace underneath the approach and departure paths for diagonal runways. Once the new Quad Grids go into effect, facilities will have the option to be a bit more precise, based on their local traffic patterns. This could mean allowing UAS operations at 50 or 100 feet AGL, for example, adjacent to approach paths, if the facility determines doing so is safe.

"This has the potential to open up literally hundreds of square miles of airspace to drone pilots across the National Airspace System (NAS), without impacting the safety of operations for crewed aircraft," says Gallagher. Drone pilots would still be required to follow all other FAA regulations, such as registering their aircraft, flying within visual line of sight, and giving way to crewed aircraft.

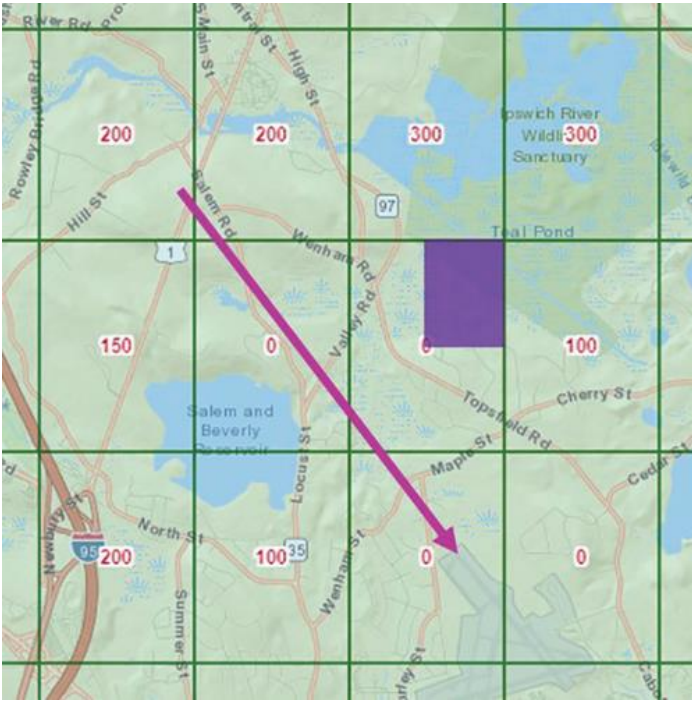


Figure 3: Current UASFM assignments around Beverly Regional Airport (KBVY). The final approach for Runway 16, depicted with the pink arrow, clips the corner of one cell with a “0,” indicating no automatic approvals. With Quad Grids, each facility would have the option to adjust altitudes in new, smaller cells (for example, the one shaded purple) that are farther from high-traffic areas.

Quad Grids are just one of many initiatives underway in the FAA to enable the safe integration of UAS into the NAS. Earlier this year, new rules went into effect that are making it easier for qualified UAS pilots to safely fly at night, or over people. The FAA has also started an Aviation Rulemaking Committee (ARC) focused on beyond visual line of sight operations. The ARC comprises about 90 representatives from across industry,

local governments, tribal bodies, and others that will recommend changes to FAA rules and regulations with an eye toward further enabling the safe integration of advanced UAS operations. The FAA is also looking at how to leverage its years of historical surveillance data to analyze airspace usage by crewed aircraft. Visualizations could help identify areas of uncontrolled airspace with frequent crewed aircraft activities, where UAS pilots would continue to need additional collision avoidance mitigation measures. The initiatives could also help in identifying times of day when crewed aircraft operations are less likely to occur. That opens the door to exciting new possibilities of dynamic airspace management, by enabling further UAS access in complex airspace, without limiting general aviation operations or increasing collision risk.

Peter Sachs is a UTM implementation program manager in the FAA’s UAS Integration Office and previously worked as an air traffic controller at San Francisco Tower (KSFO) and Chicago Executive Tower (KPWK).

Collier Trophy - Garmin

The National Aeronautic Association honored Garmin Aviation at a gala event in Arlington, Virginia, on November 4, bestowing its highest accolade, the Robert J. Collier Trophy, upon the group responsible for the [Autoland system](#) for light aircraft.



Experimental Category Fatal Accident Total Drops Again

October 28, 2021 – Safety for experimental category aircraft in the U.S. over the past 12 months continued the trend of improvement seen over the past 15 years, as the fatal accident total fell another five percent and finished below the Federal Aviation Administration not-to-exceed number for the federal fiscal year ending September 30, 2021.



This decrease in fatal accidents mirrors a year of substantial improvement in overall general aviation, even with increased flight hours over the past 12 months. There were 42 fatal accidents in experimental category aircraft during that period (October 1, 2020-September 30, 2021), five below the FAA's not-to-exceed number set for the year. Of that total, 33 were in amateur-built aircraft. "This is continued good news on the safety front, as fatal accident totals in the experimental category have fallen 40 percent in the past decade," said Sean Elliott, EAA's vice president of advocacy and safety. "Fatal accidents in homebuilt aircraft have dropped by one-third over that time as well, reflecting

a safety culture that is more widely accepted and followed as an important part of the balance of freedom and responsibility that is such an essential element of flying."

The FAA has continued to lower the not-to-exceed total each year as an expectation for improving the safety metrics throughout aviation. The agency first set a goal in 2010 of reducing the fatal accident total by 10 percent over the next decade, a target that was quickly surpassed and set the stage for even more dramatic improvements in the safety measurements.

EAA continues to focus on safety and is actively working with FAA with such groundbreaking programs as the Additional Pilot Program, the EAA-published Flight Test Manual, and the upcoming task-based flight test allowance for phase I flight testing of certain homebuilt aircraft. MOSAIC as a new baseline for recreational aircraft will also enable many safety-enhancing elements for both aircraft and pilot certification in the EAA community. Safety continues to be a central focus for EAA and its communities.

"As positive as these figures are, EAA will not stop here and will continue to lead in making safety the top priority for all of us who fly," Elliott said. "We have pushed the totals to very small numbers that

are substantially fewer than many other common recreational pursuits, such as boating or all-terrain vehicles. But with such small numbers, even one or two accidents can have a negative impact on the overall safety trend.”

Tail Boom On Quicksilver GT 500

This is a tail boom on a Quicksilver GT 500. The age and storage conditions are not currently known. The owner was asking for advice on what to do with this condition in a FB group.

It is corroded fully through and only a guess on how the rest of the tube looks from the inside. Comments on the posting including the condition of other tubes as well.

This condition could have been mitigated with rigorous annual inspections (unlikely done at all) and applications of ACF-50. In this case the boom is open to the elements and would require regular borescope inspections.

Based on postings in the UL/Microlight groups this lack of inspection and prevention is rampant in the UL world. What is normal for the certificated world is lacking in the UL/ML world.

BTW – this is a \$1000 replacement part.

(Look on next page for images)



Harper's Fall 2021 Migration

Canada to Bermuda to Cuba

10/2/21 – 10/9/21

Harper is a great blue heron equipped with a solar-powered GPS transmitter. She was first tagged in Harpswell, Maine, USA in May 2019. She has since spent summers in New Brunswick, Canada, and winters in Guajaca Uno, Cuba. This fall she departed on her migration on October 2nd and flew nonstop for ~40 hours to Bermuda. She spent three days in Bermuda, before flying another 30 hours to the Bahamas. She spent 8 hours there before completing her journey's final leg to Guajaca Uno. Her 7-day journey covered **2,130 miles**, most of it over open ocean!



Chaleur Bay, NB

Bermuda

The Bahamas

Guajaca Uno, Cuba

0 80 160 320 480 640 Miles

For updates, follow us on Facebook: <https://www.facebook.com/maineheron>



Own a piece of HISTORY...



**1938 Navy Aircraft Factory
n3n-3**
\$69,000

Listed a week ago in Chino, CA

Message

Seller's Description

OWNER WANTS TO SELL
with reasonable offer

1938 Navy Aircraft Factory N3N-3
Here is a chance to own a piece of flying history. It is estimated that less than 20 of these airplanes are still flying. Known as the "Yellow Peril", one of the remaining N3N-3 hangs in the National Air and Space Museum. This is a rare example of early WWII aviation; it was used as a primary trainer and wasn't decommissioned until 1964.

This airplane has been owned by the current family for over 40 years. It continues to be treated as a rare collectible and is in good condition. It has never been used in any type of agricultural aerial spraying.

The airplane is powered by the Wright R-760-2 Whirlwind 7 radial piston engine. Cruising speed is an estimated 90MPH. Comm radio, transponder and intercom were installed in 2015. An electric starter has also been installed.

It is not ADS-B compliant.

TT - approximately 2000

SMOH - 700

Paint rates an 8 out of 10

Interior rates a 5 out of 10

There is no known damage history.

The logs start in 1967 and an early entry shows either a refurbishment or repair. More general information can be found [here](#)

https://www.trade-a-plane.com/search?make=NAVAL+AIRCRAFT&model_group=NO+MODEL+GROUP&model=N3N-3&listing_id=2385403&s-type=aircraft

For Sale

Bendix AV8OR GPS complete in original box - \$25 – see jim Heffelfinger

Kuntzleman - DOUBLE DUAL MAGNUM – SYSTEM 12 volt Model with Driver and Two STANDARD STREAMLINE Heads – New - \$100. jimheffelfinger@gmail.com

Giving away a mid-tower PC

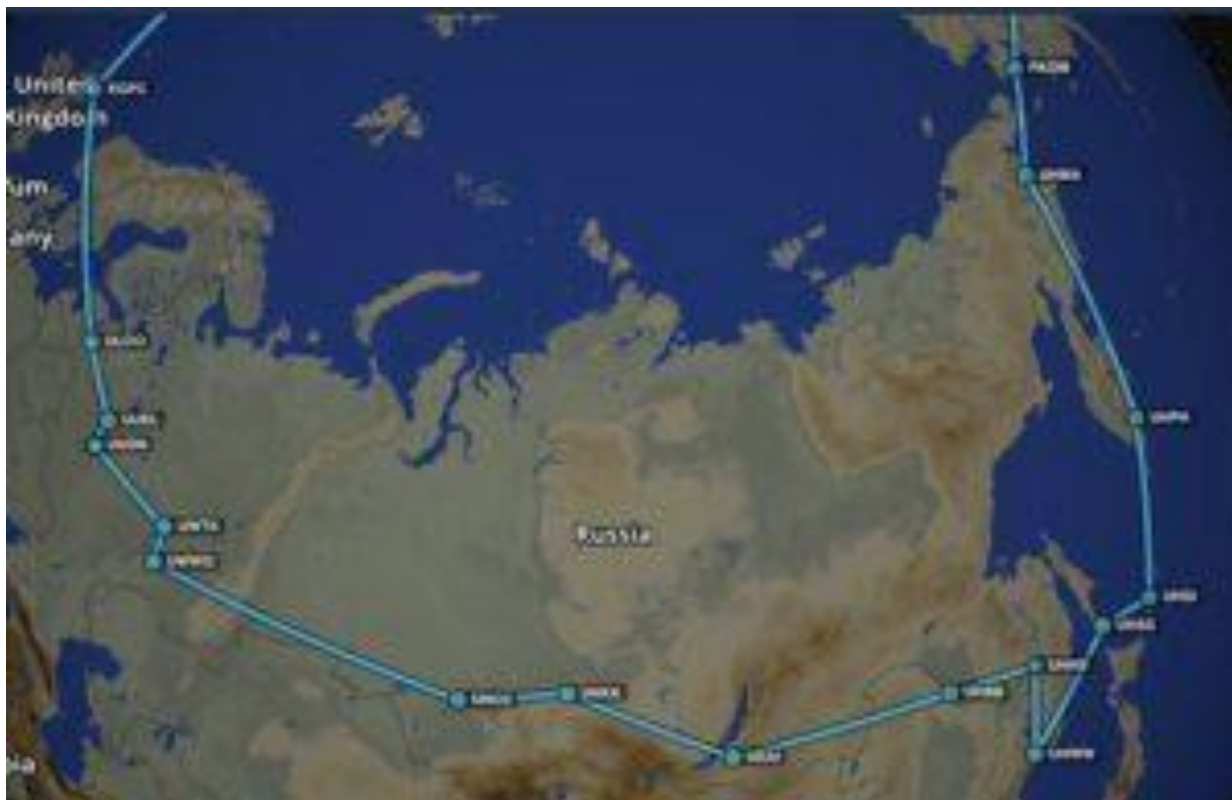
AMD A12 CPU MB ASUS 88, GPU on board R7, RAM: 16 GB DDR3, HD/SSD – none, slots for 4 drives PS: 400 w , Disc media drive – None – empty bay. Jim Heffelfinger

[Flying a Cirrus VFR across Russia – AirFacts](#) - NOVEMBER 1, 2021

In 2019 my wife Sherry and I flew our Cirrus SR22 from Florida to Nome, Alaska. In Nome, we joined the Alaska Airmen's Association Goodwill Flight to Providnya Bay, located in the Chukotka district of Eastern Russia. While acquiring the necessary permits, I learned that it was possible to fly entirely

across Russia. I found this astounding. For decades, the requirements to fly a private plane beyond Moscow or St. Petersburg required having a Russian speaker/navigator on board. I understood that the necessary permits were difficult to obtain and that avgas was hard to come by.

With little notice or announcements, all of this has changed. A Russian speaker is no longer required. Avgas availability has tremendously improved and, oh, by the way, “hop in your small plane, come fly around Russia; we are open for business.” Thinking about all of this for just a few seconds, I knew that I had to make this trip. Then Covid put a delay on the plan. It was not until July of 2021 the trip became possible.



Planning the route is only step one: what about avgas and ATC?

The three significant obstacles to opening Russia to foreign general aviation were language, radio coverage, and avgas. Russia has always had English speakers at its international

1Planning the route is only step one: what about avgas and ATC?

airports and high altitude airways to handle international commercial flights. The challenge was to bring the English language to its domestic airports and the lower altitudes. Considering the vast size of the country, this was an enormous undertaking. Russian and English could not be more different; therefore, introducing English to over 8,200 air traffic controllers took a while.

Ensuring low altitude VHF radio coverage across the largest country in the world was also an enormous logistical task. Russia produces 100LL avgas in three different refineries, so it is readily available. It was just a matter of having it available at suitable locations, making it possible to cross the country. The only stop that I insisted on making that did not have avgas was Petropavlovsk, Kamchatka. The solution was shipping two 200 liter drums there, which was no problem.

Several Russian agencies have participated in opening up the country to foreign General Aviation. However, one individual that has provided the heart-beat to make it all happen is Evgeny Kabanov. Currently the Chairman of the International Tourism Committee of AOPA Russia, Evgeny's company (MAK Aviation Services) has driven the cooperation between the various agencies. In addition, he has organized avgas availability at many airports, making it possible to easily cross the country in a piston-powered aircraft. A trip across Russia can be quickly planned by just looking at MAKgas's fuel

page. The complexities of obtaining permits, having flight plans and routings approved by the CAA and ATC are a breeze using MAKgas. Their fees are surprisingly reasonable.

A flight across Russia is as large of an undertaking as Russia itself. Consider that Russia has a landmass of 17.13 million square kilometers, almost twice the size of the US. Russia is the largest country in the world. It encompasses more than one-eighth of Earth's inhabited land area. If you flew a great circle route from the most western border of Russia to its most eastern seashore, it would be over 5,000 miles. Russia has 11 time zones, spans two continents, borders 16 sovereign nations, and reaches almost halfway around the northern hemisphere; it is enormous.

Russia is such a vast landmass that practically flying across Russia amounts to an "an around the world" flight. Since opening to general aviation, pilots wishing to complete an "around the world" flight have found the Russian route a convenient and weather-friendly option. This route is also a much less expensive option than crossing the Middle East and Asia.



Crossing the Greenland ice sheet—not the place for ignition trouble.

My departure was from my home base in Apalachicola, Florida. The route took me to Iqaluit, Canada (CYFB), conveniently located to cross the North Atlantic. As luck would have it, the weather shut me down there for four days. Then halfway across Greenland, the electronic ignition system shut down, so another five days in Reykjavik (BIRK) waiting for parts. Two weeks in, I had not gone farther than Iceland. If there is any place to break down, Reykjavik is one of the best—it is a scenic, hip town, not to mention that Iceland has between 20

to 30 local craft breweries.

From Reykjavik, my route went to Wick, Scotland (EGPC), and then onto the first Russian stop of Pskov (ULOO). Pskov, a favorite clearing spot for ferry pilots, is a scenic town with friendly but thorough customs agents. The river Velikaya runs through Pskov, one of Russia's oldest cities dating back to 903 AD. What a great place to get your first taste of Russian beauty and hospitality!

The next stop was Konakovo (UUEL), about 100 miles north of Moscow. Primarily a civilian helicopter field, it has a 1,950 ft. runway, beautiful facilities, a five-star restaurant, hotel rooms, cabins, a lake, and an expansive children's playground. Konakovo hosts helicopter competition events, and the club located there boasts several international awards. My hosts here were fellow Earthrounders Maxim and Natalia Sotnikov, who flew their Bell 407 around the world in 2017. They have done an excellent job of developing Konakovo, and it was one of my favorite stops.

From Konakovo, three stops were made at general aviation airports around Moscow. First was Myachkovo (UUBM) home base for the busy flight school Aero Region Training. With an impressive fleet of G1000-equipped Cessna 172s and Tecnam aircraft, they have graduated over 500 Private Pilot students in the last two years, and that's during the pandemic. They currently have an

impressive 12 instructors and approximately 60 students. I presented Carrabelle Flying Club t-shirts to two of their flight instructors. They quickly produced a bottle of Beluga vodka in exchange!



Avoiding big airline airports offered the chance to find plenty of interesting GA airports.

Next was Novinki (UUDN), probably the most excellent airport in Russia and maybe just about anywhere. The general aviation-only terminal features a restaurant, bar, pilot's lounge with a billiards table, and hotel rooms with beautiful facilities. Novinki even has hangar homes. The piston power Cessna/Beechcraft sales and service center is selling two new aircraft every month. Notice "sales and service." Getting service done in Russia, even on a Cirrus, was no problem. I found

the facilities and maintenance technicians to be excellent throughout Russia.

Then on to Torbeevo (UUCT). Here the second largest airline in Russia, S7, has built a general aviation training center. Beautiful hangars, modern classrooms, and G1000-equipped 172s. The flight school at Torbeevo is separate from their Boeing and Airbus airline training campus located just outside of Domodedovo (UUDD). S7 happens to own the Epic Aircraft Company located in Bend, Oregon. Everyone at S7 is very proud to be involved in a US manufacturer. There are several local airplanes based here, including a new Cirrus SR22 that was parked next to an Ilyushin 11-2 Shturmovik, fully restored to flying condition, except for the bullet hole that shot it down in 1942

To practically fly east from any of the Moscow GA airports, you generally follow the Trans-Siberian Railway. This historic railway dates back to 1916 and connects Moscow with the Russian Far East. It is the longest railway in the world, with a length of over 5,772 miles.

To follow the Trans-Siberian Railway across Russia is the flying adventure of a lifetime. Along the way, GA-friendly airports, beautiful scenic cities, five-star hotels, fantastic exotic restaurants, and friendly, helpful people are all in abundance. In addition, this is a weather-friendly route in the summer months that can be flown using VFR flight plans. Avgas is not available everywhere, but it is readily available and not an issue.

One of the stops along this route was Krasny Yar, Samara (UWWQ). Here fellow Earthrounders Sergey Alafinov and Dmitriy Sislakov greeted me and toured me through the Aero Volga facilities. Aero Volga produces amphibious seaplanes, and the current production includes the twin-engine LA-8 and the LSA Borey. Both models were flown around the world in 2018. I had the opportunity to fly a Borey with its designer Dmitriy on the Volga River. Dmitriy, an avid fly fisherman, has ensured ample space for fishing and camping gear in this beautiful flying boat. US certification is scheduled for 2021.



Figure 2 The hospitality from Russian GA pilots was almost overwhelming.

I tried to stay away from big airports, as one of the goals of this trip was to meet as many Russian GA pilots as possible. Most large cities along the railway have smaller airports located nearby. At almost every stop, I was greeted eagerly by Russian GA pilots. They were helpful, friendly, interested in the Cirrus, my route, and in showing me their planes. Photos, dinners, beers, and of course, vodka always followed. I cannot say enough about the generosity and hospitality that Russian pilots, mechanics, and airport workers showed me. General aviation in Russia is alive and well, welcoming pilots from anywhere in the world.

Following the railway, as I did to Vladivostok, is not the shortest route across Russia. It ends in the very southeastern part of Russia near the Chinese and North Korean borders. From

Vladivostok, it's another 2,000+ miles north with stops at Sakhalin Island, Petropavlovsk, and Anadyr, before crossing the Bering Sea to Alaska. One of the advantages of this route is that it over-flies the Kamchatka Peninsula and the Volcano National Park, one of the most spectacular flying opportunities in the world. In total, my odyssey across Russia was over 7,500 miles.

There are some differences between flying in Russia and the US. Russia has technically converted to the use of QNH from QFE. QFE provides for altitude above ground level versus sea level. I found that QFE was still in limited use, depending on the region flown in. When given QFE, I would ask for QNH, and it was provided. Altitude in meters is also sometimes used. G1000-equipped aircraft altimeters can easily be switched to meters; otherwise, having a conversion chart handy would be necessary.

Transition levels for standard altimeter settings, 29.92/10.13 are generally around 7,000 ft. However, this is not the same everywhere. Usually, this is noted on the airport information page or contained in the ATIS.

Both VFR or IFR flight plans are allowed, but you must be on a flight plan. Either way, plan on routings via airways with regular position reports required. Russian databases are part of the Jeppesen International coverage. They can be purchased from Jeppesen and include four downloads. Their database does not include all Russian airports, and the coverage is generally limited to airports with instrument approaches. The Russian pilots I met all use the app [Air Navigation](#). This app has all of the Russian airports with their associated information pages. I ran one iPad with [ForeFlight](#) and the other displaying the Air Navigation VFR display.

Weather briefings are technically available in some places but only in Russian. You are basically on your own for the weather in Russia. I found [Windy Pro](#), [Storm Radar Premium](#), and [ForeFlight](#) to be the most practical for determining the weather.



3 Active volcanoes over the Kamchatka Peninsula made for spectacular views.

Both the CAA and ATC must approve flight plans for foreign-registered aircraft. MAK Aviation Services makes all of this look easy. Their service includes having the flight plans and the routing approved, validated, and filed. The approved flight plan is then transmitted via email the night before departure. IFR and VFR flight plans require validation.

Russian entry requirements for private aircraft allow for 30 days in the country. Extensions are permitted for weather and maintenance issues. I spent 25 days and flew over 7,500 miles just crossing Russia. The country, the people, the airports, the cities, the sites, the hotels, the restaurants, and the flying experience were all beyond my expectations. While visiting some of the smaller Siberian towns, I was stopped several times by people wanting a picture with me. They had never seen an American before. One waiter asked me if I could show him some American money. "One day," he said, "one day I will go to America." It was the trip of a lifetime.

Flying across Russia does not require any additional fuel tanks or special avionics. Communications across some areas of Russia are somewhat limited below 10,000 ft. Although not required, I found a satphone to be a convenient device and prefer the Iridium GO. This device, operated through an app and paired to a headset, makes it possible to make and receive calls over the headset. Survival equipment similar to that typically carried for flights to the remote areas of Alaska and Canada is also recommended.

Crossing from Anadyr, Chukotka to Nome, Alaska, the airway follows a route that allows for the shortest overwater time of the Bering Sea, 63 miles. This route passes over the Diomed Islands (Big Diomed in Russia, Little Diomed in the US). The distance between them: 2.6 miles. 2.6 miles separate these two great countries.

Following is a list of my airport stops in Russia

Russia and the United States are separated by just 2.6 miles.

UULO: Pskov
UUEL: Konakovo
UUBM: Myachkovo
UUDN: Novinki
UUTC: Torbeevo
UWTK: Karaishchevo, Kazan
UWWQ: Krasny Yar, Samara
UNCC: Gorodskoy, Novosibirsk
UNKK: Krasnoyarsk Severny



4Russia and the United States are separated by just 2.6 miles.

UIII: Ulan Ude
UHBB: Blagoveshchensk
UHHS: Kalinka, Kharbarovsk
UHWW: Vladivostok
UHSS: Yuzhno-Sakhalinsk
UHPP: Petropavlovsk-Kamchatka
UHMA: Anadyr

Any long-range international trip requires much planning and preparation. This is undoubtedly true in planning a flight across Russia and around the world. However, in the words of French author and Nobel winner Andre Gide, "The drawback to a journey that has been too well-planned is that it does not leave enough room for adventure."

Watts-Woodland Airport, Inc. *Circa 1919*



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host food trucks, and much more!



Please do not hesitate to reach out to us, and let us know what you would like to see featured here, at Watts-Woodland Airport Inc.!

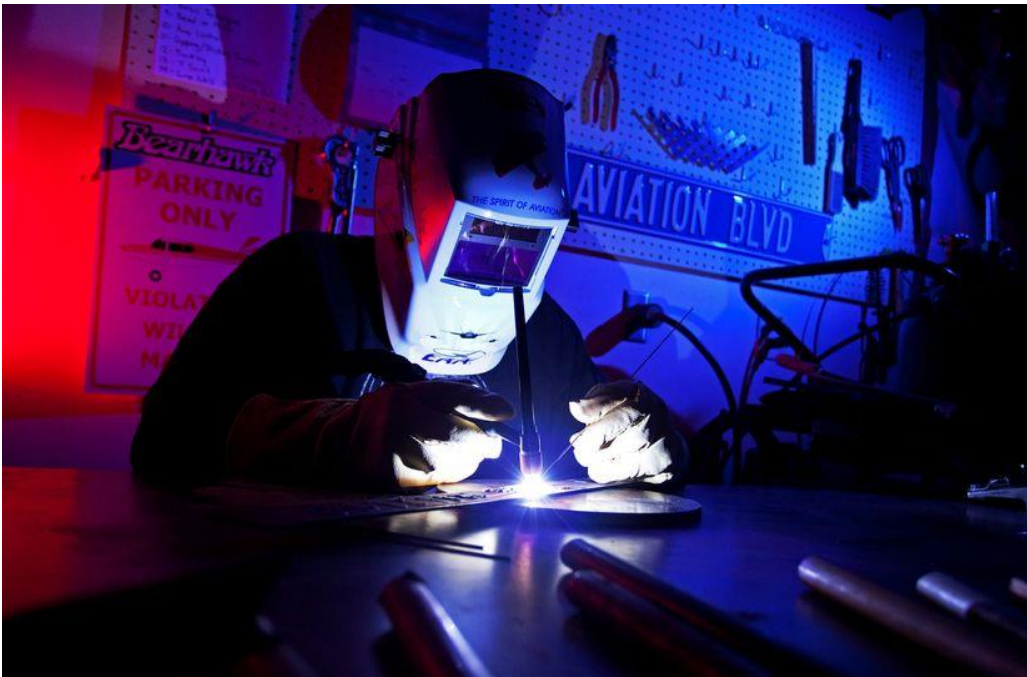
Contact us at 530-666-1145 • 17992 County RD 94B Woodland, CA 95695



5 An amazing photo - consider the effort to line these up for the shot

Be first to identify
November's Mystery
Airplane by emailing
chapter52.news@gmail.com





EAA is bringing back its Homebuilders Week series of online webinars in January 2022, following the big success of the inaugural series earlier this year. The upcoming series is scheduled for January 24-28, 2022, which encompasses the 69th anniversary of EAA's founding on January 26, 1953. Read more: <https://bit.ly/3oFZgS6>

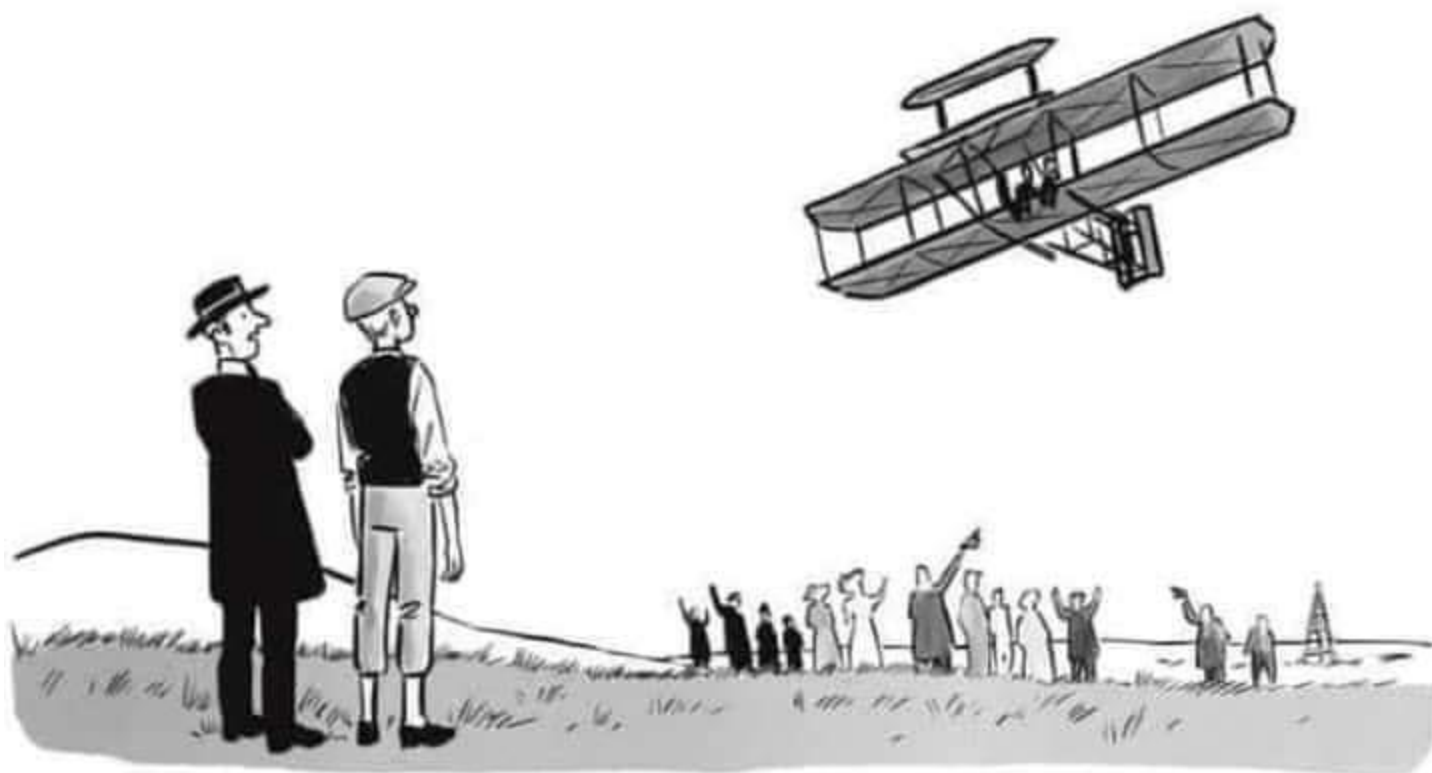
John Kuroski

Known as the "ace of aces," perhaps no fighter pilot in all of World War II was as deadly as Major Dick Bong. In over 200 missions, this American daredevil took down a whopping 40 enemy planes on his way to earning the Medal of Honor — and he did it in his one-of-a-kind brazen style. This rebellious rule-breaker was repeatedly grounded for stunts like doing loops around the Golden Gate Bridge and flying so low over houses that he'd blow people's laundry right off their clotheslines. But in the end, Bong's superiors always had to recall him to service because he was just too good to keep on the ground. From Dick Bong to "Mad Jack" Churchill, learn all about history's most extraordinary war heroes: <https://bit.ly/3bjS8o2>



Mechanics Corner - Locusts in Africa Pilot had to open the window to see for final. Rough clean up.





“Well, what I see is my bike not getting fixed.”

FROM THE EDITOR(s)

We are trying several different formats for the newsletter – feedback would be appreciated. Nick is trying to get his feet under him in a back-in-class environment. Jim H is supporting.

If you would like to contribute a story or news article it would be great. All submissions should be emailed to no later than the 15th of the month. Remember if you submit an article from a publication; please include the name and date of publication so that proper credit can be given. Chapter52.news@gmail.com.

IF YOUR MEMBERSHIP HAS LAPSED let me encourage you to re-engage! We miss you and your involvement in Chapter 52!

If you would prefer to be removed from our mailing list, just drop an email to Chapter52.news@gmail.com requesting to be unsubscribed and we will do so promptly.

**BOARD
MEETING**

*2nd Tuesday of
each month
7PM-9*

Zoom

Meeting ID:

858 9594 7691

Passcode:
63860

*(Interested
members
always
welcome!)*

CHAPTER 52 MEMBERS MEETING

Last Tuesday of each month

7:00 PM

Zoom

<https://us02web.zoom.us/j/86295420288?pwd=ZzFxeXNRU0NZZWRRL0pmbHBFYjJXQT09>

Meeting ID: 862 9542 0288

Passcode: EAA52

**Holiday
Gathering
December 11**

**December 11 – Holiday Gathering and
Installation of the 2022 Board**

See us on Facebook

<https://www.facebook.com/EAA-Chapter-52-Sacramento-150966778295803>