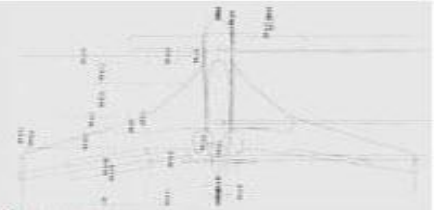


# Squadron III

The only monthly dedicated All-Canard flyers newsletter for events, resources, updates and more in the canard flying world.



May 2020

Volume X, Issue 4

## Picture of the Month:



Photo by Paul Booth

## FAA Developments:

**Big clear runway numbers on the chart – and details with one tap...** From Sporty's: *"One of our favorite qualities in aviation EFB apps is their dedication to making important data easily accessible when the workload is high in the cockpit. The latest improvement extends this capability in ForeFlight to allow you to quickly view*

runway details by tapping on the extended centerline number marker right from the Maps screen.

First, make sure you have extended centerlines enabled from the main map settings dropdown (That's the gear wheel next to your FPL on the map screen.) (They will only show for airports in the active flight plan (Beagle: actually your indicated departure airport or destination, flight plan or not.)). Then, tap the runway number at the end of the centerline to view complete information about that runway: distance, wind components (calculated from internet or ADS-B data), runway lighting details and available approaches." (Beagle: I'm still humming with delight with what I learned so recently I could get the full airport drawing with taxiways and everything by enlarging the chart at the airport being considered.. that's for two fingers when on the ground, this new one just requires a finger tap on the extended runway number.)

### The FAA has reduced hours in 94 Airports on 4/27/20:

Control Tower Hour Adjustments

ID	City	State	Tower Hours of Operation
ACK	Nantucket	MA	0800-1600
ACT	Waco	TX	0800-2000
AGS	Augusta	GA	0900-1700
ALO	Waterloo	IA	0800-1800
APA	Denver	CO	0600-2200
APC	Napa	CA	0900-1700
ARB	Ann Arbor	MI	1000-1800
ARR	Aurora	IL	0800-1800
AVL	Asheville	NC	0700-2100
BFL	Bakersfield	CA	0600-2000
BGM	Binghamton	NY	0800-1600
BIS	Bismark	ND	0600-1800
BTR	Baton Rouge	LA	0600-2100
CCR	Concord	CA	0700-1600
CDW	Caldwell	NJ	0800-1600
CKB	Bridgeport	WV	0800-2200
CMA	Camarillo	CA	0700-1700
CMI	Savoy	IL	0800-1800
CNO	Chino	CA	0800-1800
CPR	Casper	WY	1200-2100
CPS	Cahokia	IL	0800-1600
CRQ	Carlsbad	CA	0800-1800
DWH	Spring	TX	0900-1900
ELM	Horseheads	NY	0800-1600
EMT	El Monte	CA	0800-1800

Control Tower Hour Adjustments

ID	City	State	Tower Hours of Operation
ERI	Erie	PA	0800-1600
FLO	Florence	SC	0900-1700
FNT	Flint	MI	0800-1600
FPR	Fort Pierce	FL	0700-2000
FSD	Sioux Falls	SD	0500-2200
FTW	Fort Worth	TX	0800-2200
GCN	Tusayan	AZ	0800-1600
GFK	Grand Forks	ND	0800-1800
GGG	Longview	TX	0800-1600
GPT	Gulfport	MS	0900-2300
GRB	Green Bay	WI	0600-2200
GRR	Grand Rapids	MI	0700-1700
HEF	Manassas	VA	0800-1600
HIO	Portland	OR	0700-2000
HLN	Helena	MT	0800-1600
HPN	West Chester	NY	0800-1600
HUF	Terre Haute	IN	1000-1800
HWD	Hayward	CA	0900-2100
ILG	New Castle	DE	0800-1600
ISP	Ronkonkoma	NY	0800-1600
ITO	Hilo	HI	0600-1900
JAN	Jackson	MS	0700-2000

Subject to change based on the operational needs of the individual

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Control Tower Hour Adjustments

ID	City	State	Tower Hours of Operation
LAF	Lafayette	IN	1100-1900
LFT	Lafayette	LA	0800-1900
LGB	Long Beach	CA	0600-2200
LVK	Livermore	CA	0800-1600
MBS	Saginaw	MI	0800-1600
MFD	Mansfield	OH	0800-1600
MIC	Minneapolis	MN	0800-1800
MLU	Monroe	LA	0800-1600
MMU	Morristown	NJ	0800-1600
MRY	Monterey	CA	0800-1600
MWH	Moses Lake	WA	0600-2000
MYF	San Diego	CA	0800-1800
MYR	Myrtle Beach	SC	0700-1900
NEW	New Orleans	LA	0800-1600
ORL	Orlando	FL	0800-1800
PAO	Palo Alto	CA	0800-1600
PDK	Atlanta	GA	0700-2200
PHF	Williamsburg	VA	0800-1600
PNE	Philadelphia	PA	0800-1600
POC	La Verne	CA	0700-1700
POU	Poughkeepsie	NY	0800-1600
PSP	Palm Springs	CA	0600-1600
PTK	Pontiac	MI	0800-2000
RDG	Reading	PA	0800-1600

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Control Tower Hour Adjustments

ID	City	State	Tower Hours of Operation
ROW	Roswell	NM	0900-1700
SBA	Santa Barbara	CA	0600-2200
SBN	South Bend	IN	0600-2200
SCK	Stockton	CA	0600-1600
SEE	El Cajon	CA	0700-1700
SFB	Sanford	FL	0800-2300
SJC	San Jose	CA	0600-2300
SMO	Santa Monica	CA	0700-1700
SPI	Springfield	IL	0800-1600
SRQ	Sarasota	FL	0700-1900
STP	St. Paul	MN	0800-1600
STS	Santa Rosa	CA	0700-1700
SUS	Chesterfield	MO	0800-1700
SUX	Sioux City	IA	0800-1600
TLH	Tallahassee	FL	0900-2300
TMB	Miami	FL	0700-2000
TOA	Torrance	CA	0800-1800
TRI	Blountville	TN	0800-1600
TVC	Traverse City	MI	0800-1600
VGT	North Las Vegas	NV	0600-1600
VNY	Van Nuys	CA	0700-2100
VRB	Vero Beach	FL	0800-2000

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**If you have ADS-B with 1090ES, you actually have volunteers helping rescue you by computer analysis of your ADS-B well below radar's last image** - this guy ditched in the Bahamas, managed, before the plane sunk to damage and lose his raft and was swimming with one water wing inflated when they found him and took him to a Nassau hospital.

<https://www.aopa.org/news-and-media/all-news/2020/april/22/ads-b-joins-search-and-rescue-resources>



## **RUTAN TIME:**

**Member David Schultz, Smyrna, TN:** "Joe Clark, the entrepreneurial aeronautical engineer who co-founded Aviation Partners Inc., manufacturer of the innovative blended winglets used on many business and commercial aircraft, died March 30. He was 78."

**Burt Rutan:** "RIP, Joe Clark. Reading that while writing the Winglet section of my AutoBio....NASA's Richard Whitcomb (1921 to 2009), the winglet inventor was doing wind-tunnel testing in late 1974 and decided to use Aviation Week in November to announce his breakthrough. The bottom line is that a winglet would give you two thirds the drag-reduction advantage of adding that amount of wingspan to a wings wingtip, but only have a one third penalty on structurally overloading the bending of the wing. That meant it's better to add a winglet of x inches height, than to add x inches to the wing span. This meant they could be added to many existing wings without needing to beef up the wing's structural strength.

By coincidence, in November 1974 I was doing preliminary design of the Proof-of-Concept VariEze (the original VW powered prototype that weighed just 399 pounds empty). I was considering using vertical tails only at the wing-tip of a swept wing, to make the configuration balance with minimum tail drag. Reading AvWeek I was excited, since by shaping the vertical surfaces per Whitcomb, including the camber to make the top one lift inward and the bottom one lift outward, I could get all my vertical tails installed with absolutely no aerodynamic drag penalty.

Because the benefit was just induced drag, I knew the benefit would mainly be at low speeds, not high speeds. The VariEze POC took me just 3 months to build so I could easily be the first to fly Whitcomb's invention. I also used winglets on the wing-extensions I developed for the VariViggen (called VV-SP, for Special Performance) that made its first flight in July, 1975.

In August, 1975 the VariEze POC set a distance record at Oshkosh on the last day of the EAA convention. Those interested in the VariEze introduction should look at the October issue of EAA's Sport Aviation magazine - Jack Cox wrote VariEze stories long enough to fill most of that issue."

<https://www.eaa.org/eaanewsandpublications/eaamagazinesandpublications/eaasportaviationmagazine/sportaviationarchive?>

"Learning that some little homebuilt outfit had flown his invention, Whitcomb told his associates that the VariEze was not his invention, that the unknown Rutan guy probably just copied a wind-tunnel photo in AvWeek, but did not know how to camber them or set their incidence to obtain the drag reduction benefit.

Two years later I noticed that Whitcomb himself was on the flight line at Oshkosh looking at my VariEze wingtips. As I approached him he was running his hand over the surfaces, feeling the camber. I introduced myself and thanked him for his idea. He then looked at me and apologized for his initial remarks, saying that these were indeed designed correctly!

Winglets next appeared as STC's on several Business aircraft, even the large jets. It was years later that they appeared as modifications to existing Airliner wings.

Now, the big question - are winglets appropriate for new designs, not just modifications of existing airplanes? My answer is ONLY if they are also used for directional stability (VariEze, Long-EZ, Defiant, Microlight and Starship). Most of my later wing designs that were done after the Whitcomb invention, have Sheared (swept) wingtips, not winglets (Catbird, Ares, Triumph, Vantage, SkiGull, Pond racer, Lima II, Raptor and White Knight). My use of winglets on the

*Predator Crop Duster was before I recognized the benefit of a sheared wingtip.*

*Note that the Airliner designers at Boeing finally agreed - look at the 787 sheared wingtip (2009 first flight). (I asked Burt how it works - "Sheared tips shed vortices from the leading edge, due to their big sweep angle.")*

*My use of winglets on Voyager was ONLY to get a wingtip fuel vent that was high enough so it didn't gush too much fuel on the ground during the takeoff roll. To prevent vent fuel leakage the wings were supported up on sawhorse pads for the hours leading up to the Voyager takeoff. The fact that the winglets were ground off by scraping the runway for 2 miles had little effect on the overall induced drag."*

**Burt & Tonya training in a Brazilian Super Petrel Sea Plane:** A Minnesota lady brought the plane below out to Burt and Tonya and toured the Northern Idaho lakes in the right seat.



I have included his comments and flight report in library item: 30MS63 Apr'20 Rutans' new Super Petrel and it's antecedents.

## Promoting the Breed:

**Member David Schultz, Smyrna, TN:** Provides this Kit Plane article which explains the apparent drop in registered homebuilts - basically the FAA's policy of requiring renewal every 3 years - otherwise being struck off the list. Interestingly, when I am searching for a good plane for a new buyer, fully 1/3 of the EZs are deregistered - and yet easily returned to service.

[https://www.kitplanes.com/where-have-all-the-homebuilts-gone/?utm\\_source=ActiveCampaign&utm\\_medium=email&utm\\_content=KITPLANES+Weekly&utm\\_campaign=KP+Weekly+2020%2F04%2F28](https://www.kitplanes.com/where-have-all-the-homebuilts-gone/?utm_source=ActiveCampaign&utm_medium=email&utm_content=KITPLANES+Weekly&utm_campaign=KP+Weekly+2020%2F04%2F28)

## CALENDAR - Canard Events in RED:

### Non-Builder owner advice:

**Changing tires - how do you get the old tire off?**

I've seen all manner of efforts to get the tires off the rim. Certainly take the 3 nuts off that hold the wheel halves together, but don't take the bolts out before you get the tire bead separated. Otherwise you will be grinding one wheel against the other.

1 way: Tom Robson, McDonough, GA: "Break the bead using a Drill press (not turned on) onto a piece of board just on the edge of the tire abutting the wheel. "

2<sup>nd</sup> way: Alex Liedl, Cozy builder: "For mounting, I used a few clamps spaced around the tire to compress it enough so the 2 halves of the hub touched each other in order to set the screws. During initial fitting, I had to move the hubs around a couple time and did encounter a few times where the bead was plenty snug. I lined a screw driver with duct tape and pried it free."

3<sup>rd</sup> way: I've seen Member Dave Ronneberg putting the wheel on the floor and standing on tire as close to the rim as possible - works for him, not for me.

4<sup>th</sup>/5<sup>th</sup> way: Beagle has two ways: I've heard that Go Cart guys have dedicated bead breakers that would work - just had no luck finding one on the web. I recommend the cheap Harbor Freight Motorcycle bead breaker which cost me about \$30 - but I don't see it in the web catalog any more, it looks a bit smaller but a similar model SKU: **92961** which I do see is item which comes to \$60 with taxes:



While there you should consider a motorcycle wheel balancer. Second way, in a pinch: If you have a vice, you can likely squeeze the tire and break both beads progressively turning the wheel a number of times - you can use this to get the wheel halves close together again so you can get a washer and nut on each of the three bolts later. I don't patch tubes, but in case you don't have tubeless wheels (a very few of us do) you need to get the tube in the tire and then avoid puncturing the tube - the two steps are a. to put baby powder inside the tire and spread it around and b. inflate the tire just enough so it doesn't squeeze in between the wheel halves as you go. It will be obvious that only one half has the nozzle hole and the brake disk goes on the opposite side. While you change tires, you should consider greasing the wheel bearings. The bearings fall out when you take the wheel off the airplane - try to keep them out of dirt. With the bearings out, you can actually stick a finger inside the 5" wheels and feel tube migrating between the wheel halves before you start closing that gap - and slide it back in. I haven't yet tested this on larger wheels - I actually carry a nose tire inflated on a nose wheel as a spare - they are harder to find than the others. Second, I carry an uninflated tube and main tire on longer trips if I have room for it - something for the old Baggage pods.

**Member Nick Ugolini** provided this on propeller history and theory:

<https://www.youtube.com/watch?v=0bP2MH3LqvI&feature=youtu.be>

## Congratulations:

**Member Gary Ernest, Saline, MI:** "I had my DAR FAA Airworthiness Inspection yesterday (I passed!!!) on my (Velocity) XLRG so could not make the Seminar. The inspector was awesome and I used a FAA DAR who walked me thru the new FAA online application process which was more than a bit confusing. It took a couple of days just to get the paperwork side of things completed and uploaded. Then a day for the in (person) final inspection. My DAR charges only \$500.00! Plus transportation (he waived his transportation, gas etc. as he was only 1 hour away at Ann Arbor, MI. He also offers for an additional \$50.00 to walk you and hold your hand so to speak thru the very complicated new **FAA ONLINE** process this has changed to." **The Beagle: California DARs seem to be charging \$800 to \$1000 and the FAA offices can delay a long time if you wait for them. Bigger union, I guess.**



Gary holding the Log Book

## Builder's Help Desk:

**Member Mike Satchell, provided this Epoxy presentation by Gary Hunter, a genuine Epoxy Engineer:** (Beagle has been keeping Gary Hunter's writings for the Library) – here it is:

[http://www.cozybuilders.org/Oshkosh\\_Presentations/2006\\_EpoxyDoDonts.pdf](http://www.cozybuilders.org/Oshkosh_Presentations/2006_EpoxyDoDonts.pdf)

**Member Izzy Briggs, Epsom, New Hampshire** on COBA discussion about mounting iPads: "I've used that same system of iPad and RAM Mount for my flights. A couple things I learned using the system: Make sure you have good clean USB power. One of the new USB Power cubes can work. Cheap power supplies can lead to excessive radio noise. Make sure it puts out over 3 Amps. 2.1 Amp chargers might not keep up with the power demands especially on the highest brightness mode and a cold cockpit.

Be aware these devices batteries can be damaged if you operate them over 95F, and the device will shut down if they get too hot (114 F). If it does

shut down, it can be a challenge to find a way to cool it off enough to make it work again. The batteries won't work properly or charge if they get too cold (below 32 F). If the device is exposed to the sun with the canopy closed on the ground on a typical summer day, it might go into thermal shutdown and not be available when you're ready to take off.

Here's what Apple has to say about operating temperatures.

<https://support.apple.com/en-us/HT201678> RAM and some others make supplemental cooling trays if this is a problem for you.

Other than that, I find the iPad mini it an excellent companion for long flights. But I would not recommend it for a primary flight display instrument because of these narrow operating temperatures and it's tendency to shut down to protect itself rather than continuing to operate to destruction to protect the pilot and airplane."

**My Avionics friend, Chris Randall, Santa Clarita, CA, advised ACK ELTs (with 406mh) for years - his advice now:** "I like the Artex 345 nowadays. They're \$549 or so. They're totally kitted and even easier to install than the ACK. I've installed equal amounts of both. The ACK has a known issue. Sometimes, when the GPS signal is hooked up to the unit for position reporting when the ELT is transmitting, the ELT activates when power is applied, every time. It's a pain...mine does it... and ACK isn't quite sure what to do about it. The Artex 345 is also slightly smaller.. maybe a little lighter too. And we don't have to buy our own batteries for those switch and buzzer modules. SteinAir or Chief Aircraft you may save on the sales tax."

**Avoid nose lift bolts falling out - this from Marc Zeitlin:**

"I hope that I don't steal Jack Wilhelmson's thunder here, but I view this as a reasonably large safety issue.

So a few weeks back I was whining on the COZY list about Wilhelmson Nose Gear mounting pin bolts coming loose, and using Loctite and/or safety wire to retain them, and checking them often. There was some discussion on list about this, and Jack went off and to his major credit, did some experimentation on what could be causing the bolt loosening, which could lead to a nose gear collapse and extensive nose damage.

He determined that if there was excessive friction between the steel pin and the aluminum side mounting plate, the torque from this friction and the few degrees of rotation that occur could, over time, cause the bolt to loosen and fall out. Obviously, this doesn't happen to everyone, and doesn't happen all the time, but it does happen to a small but hardly close to zero percentage of folks with his system installed (same as Pmag/Emag issues).

After some discussion about possible remediations, Jack came up with a field replaceable set of pins and locking washers that I installed and am testing for him. It took me about 15 minutes to remove the old pins one at a time and replace them with the new pins. The idea is that there's an internal tooth lock washer between the curved washer and the pin that very slightly digs into both when the bolt is tightened, and ensures that it takes a LOT more torque to loosen the bolt when attempting to turn the pin from friction with the side plate than it did before. Jack did substantial bench testing of this system and was not able to get the bolts to come loose.



Now, I have NOT had this on the plane for very long, so only one landing so far and maybe 5 miles of taxiing. Hardly a conclusive test. However, the theory is good, Jack's testing is sound and this solution addresses the issue far better than Loctite alone (and I DID use Loctite as well) and alleviates the need for safety wire. It's very hard to imagine that this system has any downside at all from the previous system, and Jack stated that he's modified the instructions and will be shipping this pin system with all new orders.

For MY customers, I have 10 sets in stock that I can install for people at CI's or whenever, and Jack's selling them for \$20 + shipping. I highly recommend that folks upgrade at their earliest convenience for safety and peace of mind."

## **Key Maintenance Tip:**

**Member Paul Robert:** "Just a reminder to everyone to check your gascolator or sumps every time you add fuel. I once filled my 172 up with water. How did that happen? The line from the underground fuel tank had rusted a hole in it thus filling up with water. I caught it because I did check the tanks after fueling. This was a rural airport but none the less. Lesson learned. It causes me concern when folks fill up without checking. Just do it every time."

**Member Greg Norman:** "Had a friend lose his Cessna this week from water in the fuel. There were some good posts earlier about this topic. I remember in my boating days I had a friend with a water separator in his fuel system. Aside from the gascolator is there a good fix for water separation in aircraft?"

**Beagle's experience in 30 year, in the US, Mexico, Canada, and the Bahamas:** I've not found water in my tank - with one exception. When my thermos type fuel caps were modified with a washer on which I first installed my safety chains - I've spent about 13 years outdoors in the Defiant and 5 years outdoors in the Long EZ and 2 years outdoors in the Berkut - never found water in my tanks - some say composite tanks don't weep like metal tanks. I solved the chain problem by drilling the lowest part of the bolt and safety wiring the chain to the bolt.

**HOWEVER** - With fuel suppliers sitting on a lot of fuel that is not moving and reduced manning of many businesses, there is a much bigger chance of water build up. Aircraft Spruce sells the 12 gal/min filter for \$52.95, The 5 gal/min for \$34.95 and ships most things free. If you have an Amazon free shipment plan, Amazon sells Mr. Funnel AF15CB Fuel Filter (12 gal/min) \$48.62 or AF8CB Fuel Filter (5 gal/min) \$33.48. "REMOVES WATER, Dirt and Debris from Fuel; Simple, Portable, and Self-Cleaning; Filters Gasoline, Diesel, Heating Oil, and Kerosene; No Replacement Parts"



**Why is the Three Bladed Prop quieter than the 2 bladed prop** - I asked Craig Catto after the VOBA guys were debating it - from Craig's keyboard to your screen: *"The largest difference in noise with the two and three bladed propeller is the frequency of the noise. Even with the same diameter, the frequency is much higher with the three bladed, and thus not the lower beat of the two bladed. And on the pusher aircraft with the two bladed, you do get a beat intensity during the passing of the wing flow of the two blades, and on the three bladed, it is only one of the blades.*

*If you run a two and a three bladed propeller of the same diameter the overall blade area will or should be the same, and thus a narrower chord on the three bladed. I mention this as the physical thickness in regards to percentage is important. If you can't structurally make the prop stiff enough with a shorter chord, then you need to increase thickness. A thicker airfoil will be noisier, usually. Airfoils near the tip should not be like a Clark Y. the thickness should be back 40 to 50%. At the higher mach numbers you need to separate the air gradually. A Clark Y at higher angles of attack can actually cause a shock wave at like Mach .55 to .60.*

*So many variables. But usually the two to three bladed noise issue is just due to the frequency of the noise. That is why they sound quieter, as long as a shock wave is not formed."* **Thanks Craig! (Craig, a former Long EZ owner, is a Squadron Member.)**

## **Requests to Individual Members:**

12 ISBERG, WESTON of Oakland, CA 510-847-8808 [wes.isberg@gmail.com](mailto:wes.isberg@gmail.com)  
Q200:N57RM O-200A Livermore Airport (LVK) *"I'm still looking for someone to oversee or do the work of getting my Q200 back in the air. I'm unfortunately in DC for near term instead of LVK. I imagine someone out there has extra time on his hands due to coronavirus shutdown."*

**Brian Uhler, of South Tahoe** is taking a new job and moving to Danville shortly - he needs to share a hangar with the locals, preferring Livermore, Byron or Concord. He has good experience sharing a "T" with "Z"man for most of a decade.

## **Beagle tries to keep lists of everything canard related:**

632-671-7399 1/04 - 3/20 UY, WINSTON Bldg. 30056, Unit 168, 4440 NY 73<sup>rd</sup> Ave., Miami, FL 33166 [builderscience@yahoo.com](mailto:builderscience@yahoo.com) \$62 for Long-EZ or CZ model. They have Cozy IV, Long-EZ, Varieze and the Q200 and can do the Dragonfly too. We can make all of the others as long as we can get a 3-view line diagram. We have made the Velocity, Cozy, Long EZ and Q200 / Quickie already. Its \$124.00 + \$42.00 shipping for a 10-inch long model. Sorry we don't (have a website). We just list them on ebay.

## **What the flyers are doing:**

**Member Russ Meyerichs, in Madison Alabama:** Added windows to his plane - got a donation of Plexiglas for the effort from Airplane Plastics:



Beagle's first look at this...thought it was a mockup with the whole side cut out...frightening until you get the perspective right.

**IAN HUSS, Boulder, Colorado:** "(I) sold the Solitaire



and bought a Strojnik S2-A.



I had the Silhouette



for about a year in the interim & found out more than I wanted to about the Silhouette: The factory LIED about the glide performance specs! A... 24:1 glide ratio claimed was theoretical - if you remove the drag of the prop! Yeah, like you can take the prop off when you're done with it. My tests and calculations say the glide performance was similar to the Quickie, or the EZ for that matter! It's an OK airplane (but not as good as the Quickie) and a joke as a motor glider. What else would you expect from the guys who stole Burt's intellectual property? The Solitaire was a decent self launch glider but didn't work with the taxiway lights at KLMO-or the twin otter jump plane for that matter.

I still can't believe how great the Long EZ is! I don't even go anywhere most days, the primary mission is to blast up over the continental divide in 15 minutes after work and for that the EZ can't be beat. I can usually get an hour or so putting around in the mountains at 17K ft. on 3-4 gallons of gas, with a heater! What's not to like? I'm retiring tomorrow after 39 years and was planning on going to more fly-ins, except now that's questionable too. Maybe I should keep working 'till the COVID thing blows over?"

**Tom Jewett, Morrison, CO:** "Yes, I am building again. I purchased an unfinished project. I am making several changes based upon my experiences with the first one. I have outlined the changes in an article published in CSA. I hope to share details of the changes in future articles." Beagle: There are only a few people who have built more than one Long EZ.

**Andre Rousseau, Mont Laurier, Canada:** "We're working on the fuel pump install and other parts installation on fire wall. We're still lockdown unfortunately! We should start the [E-Racer] electrical wiring soon."

**Hennie Engelbrecht, Perth, Western Australia** - now has a Canard project - member Simon Ramirez sold him his Aerocanard project - From Simon: "Hennie was trying to figure out a way to get my Aerocanard project there, and at first he said he had it all figured out, because he had shipped things internationally by boat. But when it came time to crate it, he couldn't find anyone to do it. My wife, Karen, shipped stuff all the time for her company, and she recommended Craters and Freighters. I gave Hennie the data for him to contact them. They struck a deal, and the crating company came by and moved everything from the hangar to their warehouse. I went there to see how they were doing, and they did a great job. They broke the airplane down with my direction, through the pieces into custom crates with sufficient padding, and wheeled it to Jacksonville, FL. There a ship picked it up and made several stops in the Mediterranean, then went through the Suez Canal, on to Indonesia, then finally Perth, Australia. I monitored the whole movement using the following link (provided by Karen). [www.vesselfinder.com](http://www.vesselfinder.com) Hennie has had people come by his hangar and impressed with the workmanship. I really can't take credit for it, because Jeff Russell built all the important pieces." **Congratulations Hennie!** Beagle also has a source who actually stores aircraft in a 40' container and creates a cage around it and then fills the rest with home furnishings and baggage.



They ship cars and Robinson Helicopters around the world this way too - the mixed load shares the container cost. The cost of an exclusive 20' or 40' container is considerably higher. Building crates likely means putting the crates in a container too...but on long routes like this, the containers may be broken down and the crates moved to a new container or containers at an interim port - which involves a lot more trust for the shipping company.

**Mark Zeitlin, Tehachapi, CA: Excerpted:** "For the past four months and about 400 hours, I've been working on my plane. I've completely sanded and repainted the interior... I also replaced the instrument panel,... ripped out 99.3% of the electrical system and put in a whole new system based on Bob Nuckolls' Aeroelectric Connection diagram Z-14, which is about the most complex electrical system a single piston engine aircraft can have. Dual battery, dual alternator, X-feed, etc. Rather than letting stuff grow organically, as the previous system had for 18 years, I spent a LOT of time planning both the panel



and the electrical system, because at 62 years old, I don't EVER want to have to do this again. ...If I had to guess, I spent 100 - 200 hours designing and tweaking the IP, and probably close to that designing and tweaking the electrical system. THEN the ~400 hours doing the installation, and that's with an electrical harness fabricated by SteinAir (with a LOT of supervision and review). I've placed pics of everything on Dropbox, here:

<https://www.dropbox.com/sh/8jqxgwby1xgtkqy/AAAvID0wdnuWzRWPwt-IwAKna?dl=0> Since the pics were taken, there's been a bit more work."

**Augustin, Millan, Spain** has used this time to rebuild his O-360 for his Cozy:



## **A piece of odd history:**

### **Scratching A Canard Memory Itch – from John Lambert...race historian...**

*"It was a bright Sunday morning, flying my Varieze back from a weekend in San Louis Obispo, taking in the Hearst Castle and flying up to the SF Bay bridge, compass now generally pointed back south toward the hangar at Ramona. I decided to drop into Santa Monica (where I learned to fly) to see what the "Hole-In-The-Wall" gang was doing, the Ronneberg clan usually making fiberglass dust and EZ chatter in the laidback work clothes that is normal for playing with our canard toys.*

*I taxied up to the large old Quonset hut hangar, and the door was open and Ezes were in unusual abundance on the ramp. Strangeness was happening, like the airplane fairy had blew away the normal glass and epoxy haze and sprinkled the place with pixy dust! Everyone was dressed to the nines (as they said in old movies) and on a well-used couch just inside the hangar doorway, sat a very nicely dressed lady, alone looking rather gloomy, while all others were cheerful and somewhat giggly, festive, as if in anticipation. Of what? I killed my mags and the 0-235 ceased it's bark as I rolled to a stop, canopy open, asking ...'Whas-up?'*

*I got an instant invitation to ("Hole-In-The-Wall" EZ builders) Dedier and Mary's wedding, about to happen in an old twin Beach out over Malibu with a "V" shape formation of EZs in trail during the actual airborne wedding ceremony. See the photo attached.*





*Oh yes... The less-than-happy couch lady ...? The mother of the bride had a fear of flying, and though there was a seat just for her in the plane, she absolutely and resolutely refused to go near the twin engine chapel!*

*Fun formation flight over the pretty Malibu coast with EZ engine staccato replacing traditional wedding bells! Escape tradition and fly an EZE adventure!!! GREAT Memories!"*

## **Corona Virus Oddities:**

### **John Wayne experience**

Tower actually closed at this big commercial field when the tower was found contaminated with Covid19. After a few weeks, the tower had a limited crew. Over the past 4 months Beagle has been drafted into the John Wayne pilot group called TGIF. They go to a restaurant Friday night, then Saturday they fly out to an airport restaurant - I set up formation training with Cookie Skovbjerg - we waited a while - the TGIF civilians changed times by a late e-mail to their cell phones and so we two took a retired Marine and went to a great local restaurant, only to discover the TGIF group arriving much later. Thank goodness we could work in some formation training.

**But with Covid19,** TGIF set up a plan starting April 16th to take a camp chair each, a lunch basket each and they meet on the empty ramp of an airport around Southern California.



They are getting back to their original sized "flyouts" and joke about social distancing at 4500' and I've watched one or two just not social distancing on the ramp - and I feel a little awkward warning those two regulars off as did one of the current "air boss". One student pilot came in with a fellow "99" aircraft owner and she was elated to have found an instructor at a nearby airport in the coming week to continue her training - again, no social distancing on several levels. April 25th Raddison Hotel on the Santa Maria Airport allowed us in, tried to practice social distancing and offered "take out lunches" which they served on well spread out tables in the large lobby - not out at all. The old pilots were glad of having men's rooms too. The cook took the orders with us 6' apart, served the food and then came and told us the hotel had about 20 guests instead of hundreds and a staff of 8 instead of many more. The hotel feeds the staff, so the kitchen runs a normal schedule - with a more restricted menu. Santa Maria is the helicopter base for the Channel Island oil rigs and he told us the hotel often has many oil men from Gulf Coast staying there. The Channel Island oil rigs have shut down.

Flight following both ways revealed a lot less traffic, and fewer frequency changes Santa Maria had no ground controller and sent us to monitor ground after issuing taxi instructions on Tower frequency- in fact the ATC guy handling the over Los Angeles Approach frequency was not familiar with the VFR Coliseum Corridor (9,500') and mumbled "cleared as filed", in a mile or two he gave me a heading paralleling the much more commonly used Hollywood Park Corridor (9,500'), by which I mean to say, they moved unfamiliar people into various chairs covering this vital airspace.

## **Arizona Bunch**

**For May 2, 2020 The Arizona Bunch were doing a Social Distancing Flyin:**

*"The Payson airport restaurant is serving takeouts and have several picnic tables close by where social distancing can be practiced. If you feel comfortable with this arrangement plan on an 8am arrival. Gary Hertzler"*



I'm not certain I can publish everyone's experiences, but If you have an flying opportunity to report and want me to send it to Squadron members in your locale, just e-mail me - hopefully in time to get a response from me and the locals. If you are in SoCal and want to bring a chair and bag lunch to TGIF events, just ask me to put you on my e-mail list.

**Paul Wychaert, Dentergem, Belgium:** *"I was very happy to receive the squadron mailing this morning, at least one "regular" that isn't locked down because of Corona.*

*Here in Belgium all "non-essential" flying is forbidden since March 13th, to make things worse, weather has been perfect for flying since then (after a succession of storms in January and February). But indeed more time for building now as we are also not allowed to leave home except for essential errands. Working from home as well on a 3 out of 5 days schedule.*

*(Daughter) Claire managed to empty her house in Long Beach (California) and book a flight (for her and her dog) to Amsterdam last week. She's now staying with us under a quarantine regime of sorts. My two other daughters are also staying with us so it is a full and busy house again."*

**You might look up a piece of Corona Virus entertainment of Dr. Ben Marsh History lecturer, University of Kent at Canterbury, on YouTube.**

<https://www.youtube.com/watch?v=W2nogTPy038>

**Reuters shows airline traffic down, graphically:**

<http://graphics.reuters.com/HEALTH-CORONAVIRUS/FLIGHTS/qzjvqeqrvxm/>



Flight Aware

**Per member Ron McGee:** The FAA moved the North Las Vegas controllers to Las Vegas Intl. and limited traffic to IFR trips only. I imagine the Las Vegas controllers will be "over it" by the time you read this - but who knows who else might drop out.

**South American Velocity Advocate, Alejandro Rhodius:**

*"Argentina is struggling to get by this difficult moment. The Covid-19 is in all the news, but that doesn't mean we will be lucky not to get the Virus.... I really don't know if all the news is true as I don't trust this government at all, I don't like them, they always lie, they are going to ruin this beautiful country."*

*I bought a hangar at Vero Beach Airport, FL, just by PIPER, trying to have better days and better life. Now we're stuck here for a while, maybe another month or two. We'll see."*

**Steven and Julie McShae, parts unknown:** *"Julie and I spent a glorious year flying Twin Otters on straight floats in the Caribbean. Last April we decided to move aboard our boat and cruise the Bahamas and (luckily) put our boat to bed in GA for hurricane season. In December we moved most of our life (AirCam, Tiger, Zenith and boat) back to the west coast. This was done via Oshkosh, of course, for the Zenith and Aircam."*

**John Dibble, Ocean Springs, MS - VOBA:** *"I understand that Sweden is basically allowing the virus to run its course with little social restrictions. It will be interesting to see how they fare compared to us."* **Larry Epstein, New Rochelle, NY:** *"England tried that for a few weeks, until the hospitals were overrun and people were dying in the street. It might work in rural areas with large hospital capacity, but definitely not in the cities."*



*We are currently "social distancing" on our boat while cruising the Channel Islands off Southern California. We plan to spend much of this summer and fall doing a lot of AirCam and Zenith flying (including Oshkosh, if there is one) and*

*then cruise the South Pacific next year. We plan to spend Cyclone season in New Zealand and will definitely reach out to our canard family when we get there.*

**Peter Fischer, Bachenbulach, Switzerland:** "Swiss Borders are officially close;, in the news they said it's an offence to cross; with border patrols and even helicopters with night vision equipment. Most of small routes blocked with concrete barriers. I have no chance to go and do updates on my Long EZ (in Germany), besides Germany officially closed down all club flying that isn't absolutely essential. It's a shame, with such a beautiful spring!"

## New members:

### Two new area codes in the address list:

**904 (nFL) :**

**Already a member:**

97 GUY, KENNETH 4365 SW 118<sup>th</sup> Terrace, Ocala, FL 34481 904-237-8154  
[Lo0ngEZ06522@Centurylink.net](mailto:Lo0ngEZ06522@Centurylink.net) Long-EZ:N57KG 795 hrs. O-235-N2C Marion County Airport (X35) **Flying Nickname?**

**Already a member:**

99 CRAIG, DARRELL Dr. "DOC FLOSS" & CAROL 10 Seminole Landing Rd., Atlantic Beach, FL 32233 904-247-1597 905-874-8250 (cell) [darrellcraig4@bellsouth.net](mailto:darrellcraig4@bellsouth.net)  
Long-EZ Destroyed; sold: Berkut:Ch15 IO-540 Cozy IV:N

### Joining:

16 CANETTI, DAVID & ANNA 465 Palm Ave., Ormond Beach, FL 32174-3312 904-253-1393 [CanettiD42@GMail.com](mailto:CanettiD42@GMail.com) Long-EZ: N277DE Partner Earl Friesel

**863 (sFL) :**

**Already a member:**

97 BARTLEY MD, TERRANCE E. & KITORA "KITTY" 2012 Teakwood ln., Port Orange, FL 32128 [386-] 443-463-6465 [TBartley@TEBartley.com](mailto:TBartley@TEBartley.com) Long-EZ:N425KT 107 hrs O-320-E **Flying Nickname?**

**Already a member:**

82 COUGHLIN, TOM "Hooter" 12 Jackson Creek Cir., Sebring, FL 33870 863-381-7762 [tomcoughlin99@gmail.com](mailto:tomcoughlin99@gmail.com) Emeritus Sold Long-EZ Cut up Varieze

**Already a member:**

10 SOBOTKA, PETRA "Diva" Lake Okechobee, FL 778-322-7716 [863-]  
[petra506468@gmail.com](mailto:petra506468@gmail.com) 1000 hrs, owns Piper wants EZ. Boundary Bay Airport.

### Joining:

04 WIKSTROM, BURLEIGH Box 129, Brady, MT 59416 406-753-2309 [BYEWikstrom@Gmail.com](mailto:BYEWikstrom@Gmail.com) Varieze:Ch? Aeromomentum AM-13 (Suzuki) 3 blade prop.



### Joining:

20 PUTNAM, GEORGE 11641 Woodbourne Dr., Anchorage, AK  
99516 [GeorgePutnam@me.com](mailto:GeorgePutnam@me.com) Cozy III:Ch?

### Joining:

20 ROBERTSON, MICHAEL L. N94W24707 Bark Rd., Colgate, WI 53017 810-623-4013  
[Mchl93@Gmail.com](mailto:Mchl93@Gmail.com) Wants to build, Mazda engine

### Joining:

09 GALY, LAURENT 28 rue Ville Pepin, 35400 Saint Malo, France +33 616 691  
319 [LaurentGaly@Yahoo.fr](mailto:LaurentGaly@Yahoo.fr) Varieze: F-PGLY 900 hrs O-200



### Joining:

17 TAPP, BRANDON & ASHLEY 8409 Rockwood Ln., Austin, TX 78757-6919 817-229-  
5164(Cell) [512-] [brandontapp@mac.com](mailto:brandontapp@mac.com) Cozy IV:N615PM 600 hrs, O-360  
*"I would love to be part of the Squadron. I fly N615PM as often as possible,,,  
about 100-150hrs per year. Using it for business travel and having it IFR legal  
certainly helps keep the hours up. I do hope that we can meet in person soon at  
a fly-in...whenever those come back online."*

### Changes in E-mail:

Bill Hunter, Aguila, AZ: [billhuntersmail@gmail.com](mailto:billhuntersmail@gmail.com) (Careful, you only  
dropping the second "e")

### New Address:

**Left SoCal, moved to Florida, moved to AZ:**

98 GABRIELSON, JEFFREY "Angel" & STACY 4240 E. Ahwatukee Dr., Phoenix, AZ  
85044 941-716-3017(Cell) [480-] [jeffgabes@yahoo.com](mailto:jeffgabes@yahoo.com) Emeritus Sold Long-EZ



95 KEZELE, WILLIAM "KEZMAN" 4370 Stonebrook Ln., Idaho Falls, ID 83404  
208-280-0680(Cell) [WillKezele@GMail.com](mailto:WillKezele@GMail.com) Long-EZ RG:Ch. 26 O-320 (Infinity)  
Rigby Airport (U56)

**To Test at Idaho Falls International - soon. Needs Spirit ride to train.**

03 EMLEY, STEVE "SNAPPY" 2023 E. Sims Way, Port Townsend, WA 98368 541-892-  
7531(Ocell) [saemley@gmail.com](mailto:saemley@gmail.com) Long-EZ:N988AB 2100 hrs O-320 160 hp Formate  
Jefferson County International Airport (OS9)

11 UHLER, BRIAN "TWILIGHT" ESTELLA 356 S. Eagle Nest Ln.,  
Danville, CA 94506 415-418-9001(cell) [btuhler@yahoo.com](mailto:btuhler@yahoo.com)  
Berkut:N67XP IO-540 sold Long-EZ Looking for Hangar/airport

93 WEBER, BARRY Q. 605 N. M Street, Livermore, 94551 925-  
454-0627 [BQWeber@gmail.com](mailto:BQWeber@gmail.com) RV-4 sold Glasair III sold  
Long-EZ Sold Q2 Sold RV4 Livermore Airport (LVK)

84 BOOTH, PAUL "Ox" CANER, JOHN & CARTER 2215 Roosevelt Ave., Berkeley, CA  
94703 805-907-6658(Cell) [paulebooth@msn.com](mailto:paulebooth@msn.com) had Cozy IV Project Hayward  
Airport (KHWD)

06 MAKAROUNIS, JOHN "ZORBA" 2720 Cutler Ave NE, Albuquerque, NM 87106 480-  
246-1169 [505-] [jmakarounis@gmail.com](mailto:jmakarounis@gmail.com) **FOUND:** Long-EZ:N400BG 1700 hrs 0-320  
Albuquerque Int'l Sunport (KABQ)

### **Added to the Electronic Squadron library:**

2MS26 Apr'20 The "Scratch Test" and Epoxy sitting too long by Gary Hunter  
3CO1: Apr 2020: Discussion on Speed by Blackler and Xavier  
22CZ11 Apr'2020 Sizing the wire is very important by Wayne Blackler  
22CZ12 Apr 2020: What Marc Zeitlin used for planning and wiring his plane  
22MS89 Apr 2020 AOPA web article on how ADS-B helps in locating ditching Cessna pilot in the  
Bahamas by Mike Collins  
23LP11: Sep 1988, page 21: O-320 discussion on Oil Pump AD 81-18-08.  
23LP12: Feb 1988, page 13: "Slow Cranking: Causes and Cures".  
23LP13: Aug 1988, page 12: "Spark Plug Basics".  
23LP14: Dec 1987, page 12: "Understanding the Aircraft Magneto".  
23LP15: Mar 1988, page 11: "How to Fabricate an Ignition Lead".  
23LP16: Feb 1987, page 14: "Engine & Prop Dynamic Balancing".  
23LP17: Apr 1988, page 8: "Valve Erosion in Lycoming Engines - Will there ever be a cure?  
Superior Air Parts, armed with German Know-how, says yes."  
23LP18: Apr 1988, page 20: Lancair builders questions on Lyc 0-235-L2C pistons and mags.  
23LP21: 1985?, "Methods of Safelying".  
23LP22: Nov 1983, page 1: "Engine Break-in After Overhaul".  
23LP23: Sep 1985, page 1: "Top Overhaul Facts & Fiction".  
23LP24: Jun 1987, page 11: "Twenty Questions to Ask Your Overhauler".  
23MS81 Apr 2020: Ignition Coil Reliability by Light Speed Engineering (Heat Exposure, Output  
Resistance, Broken wires, high quality spark plugs with correct gap, bigger coils for Turbo/  
Supercharged engines.)  
23SIII34 Apr'2020 Discussion on various types of Spinners and sources by David Orr 30VV17  
Unknown date "Velocity Standard, 173 Fixed and RG Aircraft Owner's Flight Manual - scanned  
version.

### **From Last issue:**

**Actually from the November 2003 Squadron news – Steve Emley sent this:** Please tell ten friends  
to tell ten today. The Breast Cancer site is having trouble getting enough people to click on it daily to meet their

quota of donating at least one free mammogram a day to an underprivileged woman. It takes less than a minute to go to their site and click on "donating a mammogram" for free (pink window in the middle). This doesn't cost you a thing. Their corporate sponsors/advertisers use the number of daily visits to donate a mammogram in exchange for advertising. Here's the web site!

Pass it along to 10 people you know.

<http://www.thebreastcancersite.com> **Beagle was surprised the site is still up and you can cause a donor company to pay for Mammograms if you just click the pink box – you don't then have to donate money or anything – pilots are charities to themselves, right?**

**But the RED CROSS is really out of blood – you need to give blood – you brave pilots – you!**