

# EL TORBELLINO

NEWSLETTER OF SAN DIEGO ORBITEERS FREE FLIGHT CLUB



APRIL 2025

## Chairman's Corner – Mark Chomyn

April showers bring May flowers. That may be true in other states, but not Southern California it seems. My healthy-looking green lawn is already fading into light brown in some areas and to keep it looking like it does after a decent period of rain would require a nightly and costly run of the irrigation controller. As I use the backyard lawn as my test gliding area landings will get a little more jarring as the soil firms up and the lawn loses its thickness. Guess I'm going to have to beef up the landing gear on any planes I build and test fly in the back yard.

Given the lawn's fading glory, I've already done some upgrading on the landing gear of the 54-inch span Comet Taylorcraft I'm building. I'm proud to say that both wings are now completed, and the next step is sanding the leading and trailing edges. With that done I'll be ready to start applying dope (yes, I'm old fashioned) to the all of the framework and get ready for covering. It will probably take a multitude of tissue to get it done and the cost will likely exceed the cost of the plane's construction (kit, glue, Xacto blades etc).

Had I been able to see an example of the Taylorcraft bones in real time, I may have likely decided that the plane might be too large to tackle. But having attempted to build one as a 12-year-old kid and failing (only got the stab and rudder built and gave up) I was determined to atone for my failure. I'm sure that when it's finished I will marvel at my handiwork tissue covering wrinkles and all.



Our monthly contests are on hold for approximately two months due to some land survey activity being done by the field's property owner. Our ability to resume flying on the field will be subject to our obtaining a lease from the property owner. Tim Batiuk is leading the discussions and negotiation on the potential lease with the owner. We'd like to thank Tim for tackling this important task. Results of the negotiations will be offered if, and when, a lease has been obtained. Until then let's keep our fingers crossed and do not stop building. Maybe offer some prayers to Hung the god of thermals for a successful return to the field.

Other potential good news is that Don Bartick may have found an indoor flying site that is available and affordable. Don found the potential site on a facility scheduling website called Facilitron. The site he found is a gym located in a middle-school campus in El Cajon. Don has submitted an initial request through Facilitron and is awaiting their response. Thanks Don.

Our club member and member of the U.S. Free Flight Team, Mike Pykelny, is busy getting all the details covered for his trip to Europe to compete in the World Free Flight Championships. Mike is busy getting together the travel boxes for his plane, flight and hotel reservations, visas and car rental needed for the trip. The US team does have a coordinator so Mike will get some assistance when he arrives. Biggest challenge will likely be a possible language barrier with some locals who

may not speak any English. But, there are translation apps available that can assist with conversations. My wife and I recently took an Uber ride to Lindberg Field and our driver was a man who had immigrated from Belarus and who spoke only a minimal amount of English. He did however have a translation app in his mobile phone and it allowed us to fully converse with him. He could understand our questions and he spoke into his phone in his native tongue and the answers to our questions then were translated so we could hear his reply in English on the phone. Ain't technology grand?

It's April and April means Easter. As a firm believer in tradition, I will hard boil some eggs and dye them but will not roll them on the lawn in celebration of the holiday. I may however throw in a kielbasa since it was a staple in my family's home at Easter. For those of you who aren't of Polish heritage (my sympathies) cooking a nice Honey Baked Ham is a suitable substitution.

Happy Easter!

Mark

*"If you are running out of turns before you land your motor is too short or too fat. If you have any turns left, your motor is too long or too thin".*

From, Why Aren't You Flying No-Cal, by George Bredehoft, Flying Aces Club News March-April 2025

## MICRO-AERIAL ROBOT - Tech Briefs, March 2025



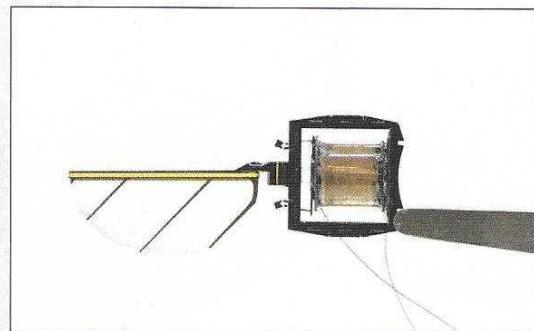
### Who

A fast and agile robotic insect developed by MIT could someday aid in mechanical pollination.

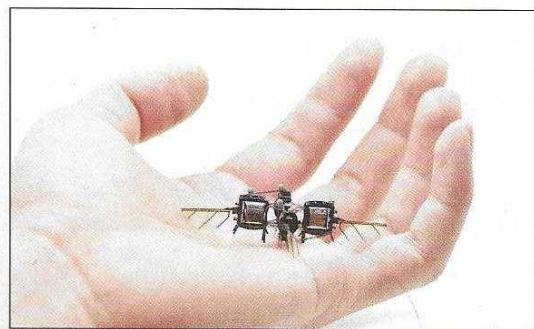


### What

MIT researchers are developing robotic insects that could someday swarm out of mechanical hives to rapidly perform precise pollination. Inspired by the anatomy of these natural pollinators like bees, the researchers have overhauled their design to produce a tiny, aerial robot that is far more agile and durable than prior versions. The new bot can hover for about 1,000 seconds, which is more than 100 times longer than previously demonstrated. The robotic insect, which weighs less than a paperclip, can fly significantly faster than similar bots while completing acrobatic maneuvers like double aerial flips. The revamped robot is designed to boost flight precision and agility while minimizing the mechanical stress on its artificial wing flexures, which enables faster maneuvers, increased endurance, and a longer lifespan. The new design also has enough free space that the robot could carry tiny batteries or sensors, which could enable it to fly on its own outside the lab. The robot also reached an average speed of 35 centimeters per second, the fastest flight researchers have reported, while performing body rolls and double flips.



The new design has enough free space that the robot could carry tiny batteries or sensors, which could enable it to fly on its own outside the lab. (Image: Courtesy of the researchers)



The micro-aerial robot can walk, hop, and jump into flight with the aid of birdlike legs. (Image: Courtesy of the researchers)



### Where

Massachusetts Institute of Technology, Cambridge, MA

## Volare Products New 10:1 Mid-Range Winder

By Mike Jester

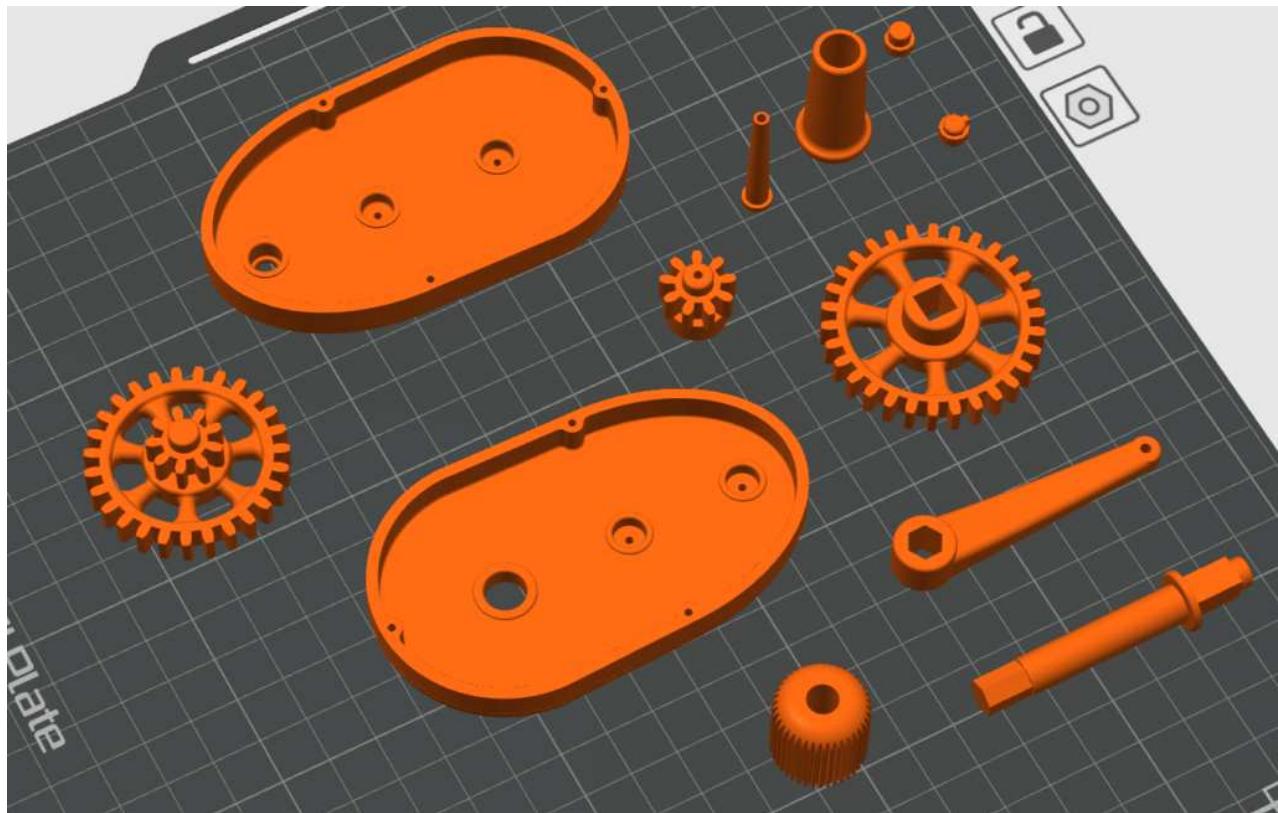
Good tools are essential to our free flight hobby. They will usually last a lifetime and are relatively inexpensive compared to the cost of traveling to contests. I like to buy useful tools for building or flying free flight models. I know that cottage manufacturers make small runs of these tools and often discontinue making them when the time and effort far outstrip the meager profit that they usually make. Sometimes you can purchase used tools for free flight from estates.

Presently the only small winders being manufactured are the inexpensive yellow plastic 15:1 KP winder and the red plastic winder 20:1 winder that comes with the AMA Alpha and Beta slide together model airplane kits. Their gear trains are stressed if you wind a rubber motor larger than 2 x 1/8-inches of TSS rubber. Ditto for the 20:1 Geauga winder that costs \$435 but is a beautiful piece of equipment for serious indoor fliers. It is basically a copy of the Wilder indoor winder which is long out of production. I gave up using my Gizmo Geezer winder as it has a 5:1 ratio and winding a mid-sized model with this tool takes forever. This winder is no longer in production. The reverse winding 10:1 Rees winder is good for medium sized rubber motors but is out of production. The large yellow plastic KP winder is good for winding rubber motors up to 10 x 1/4-inches of TSS rubber. If you can afford them, the F1G and F1B Blazhevych winders are exquisite pieces of equipment. I use my Merrill winder which looks like a large hand drill to wind my large Old Time Rubber (OTR) models. It can take up to 100 inch-ounces of torque but is no longer manufactured.



**Volare Products 10:1 Mid-Range Winder (photo credit - George Bredehoff)**

George Bredehoff has recently addressed the need for a 10:1 winder for mid-sized models like most FAC outdoor models and P-30 models. Volare Products now sells his mid-size winder that is made of 3-D printed plastic parts. The only metal parts are the 1/16-inch music wire shaft with the hook for the rubber motor and a 4-40 cap screw that holds the knob on the crank. George tested his new winder up to 15 inch-ounces of torque with no breakage but recommends you wind no larger than 6 x 1/8-inch or 4 x 3/16-inch rubber motors. They will typically break at 8-9 inch-ounces of torque.



### CAD Layout of 3-D Printed Parts for VPS 10:1 Mid-Range Winder (image credit - George Bredehoft)

The new VPS 10:1 mid-range winder can be purchased from Volare Products completely assembled for \$40 or the parts can be purchased for \$20. You can assemble the parts by following the provided 5-pages of instructions. I purchased several assembled units of the 10:1 VPS winder. It is lightweight, very ergonomically friendly, and winds very smoothly. I cannot wait to wind my FAC and P-30 models using this lightweight, compact winder. I will be winding with a relatively short, external torque meter coupled between the rubber motor and the hook of this VPS winder. Remember to also order some kits, plans, parts, tools, and/or supplies from Volare if you buy the new VPS mid-range winder as this will spread out the shipping cost. Volare Products sells nothing but quality products for our free flight hobby and they are all very reasonably priced.

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SCIENCE AT WORK - Flying Model Airplanes will prolong your life!

A new study shows that  
buying supplies for a  
hobby prolongs your life

Looks like I'm going  
to be immortal.



Held at Mark and Nancy's home, with 8 in attendance.

After a wonderful lunch was served, the meeting was called to order at 1:10p.m.

The Minutes of the previous meeting were unanimously approved as published.

The Treasurer's Report was approved as provided to the board.

**Old Business:**

Continued search for potential indoor flying sites. We investigated the possibility of using vacant warehouses in the area, but to no avail. Mark, Mike, and Linda, we all appreciated the effort! Don reported he may have a lead on a large gym at a middle school, we will let everyone know what comes of this, likely by a separate email blast.

Mark is also looking into an alternative outdoor site off Guejito Road. Again, we'll keep everyone posted.

Don gave an update on the AMA P-30 history exhibit he's been working on for the AMA museum. It will be quite extensive, as he's giving them 5 airplanes, including a Hot Box. He will also be including several types of DT's, as well as several types of front ends. This will be an impressive exhibit!

**New Business:**

Taibi Field in Perris is off limits until a month-to-month lease is acquired with the landowner. The 2025 Club Charter has been filed as of March 2<sup>nd</sup>. Thanks Mark!

David Wade is coordinating with John Bolin on modeling items in Orange County. As of this meeting, we weren't sure of the progress yet.

Finally, there was talk of the possibility of assisting with the SDSU Spring semester aeronautics class. We haven't had confirmation from the professor yet.

**Contest Corner:**

As mentioned above, contests at Taibi Field are on hold until further notice.

Don talked about the Southwest Regionals, held Jan. 18-20, in Eloy AZ. It was previously reported on, so no further information at this time.

The Issacson Classic/Kiwi Cup was held Feb. 8-11 at Lost Hills. Don reports that it is an international event, and the AMA portion had poor attendance. The FAI portion appeared to do quite well.

Scat Annual March 15-18, also at Lost Hills did not have great attendance either.

**Open Discussion:**

The use of the alfalfa field for trimming, just off the I-215 near the Home Depot has had a recent access conflict. The field is okay for trimming, but not to hold a contest.

The next board meeting was scheduled to be at Mike and Linda's home. We are tentatively scheduled for July 9<sup>th</sup>, but the date is subject to change.

The meeting was adjourned at 2:23 p.m.

Respectfully submitted by John R. Merrill, terrible secretary (should be fired!)

## FROM THE WORKBENCH - J.Merrill



I believe I'm going to call this one done. It's the Guillow's Hawker Typhoon. I got the 2 rounders on the fuselage sides, that's all the prototype had, none on the wings. The last thing I added was the carved exhaust stacks. -----→



Still working on the 2x Mooney Miles Sparrowhawk. Since the last report I've gotten the wing done with the exception of shaping the leading edges. Also added the formers to the top of the fuselage. -----→



Finally, I started yet another new project. It's a kit from a British company called Vintage Model Airplane Co. They make some WWI, WWII, and some other miscellaneous aircraft. The one I just started is an L-19, known as a Cessna Birddog. Haven't gotten very far yet, as you can see. -----→



That's it for this month. The only thing I can add is that I haven't worked on the Neo-Dime scale Chambermaid for a while. So yes, I do have 3 models in the "bones" stage at the same time.

So, what's on your workbench?

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## WHAT'S HAPPENING - APRIL 2025



Flying field currently closed for environmental assessment and study.

