

EL TORBELLINO

NEWSLETTER OF SAN DIEGO ORBITEERS FREE FLIGHT CLUB

OCTOBER 2020



Prez's Corner – Mark Chomyn

In this on again – off again, “new normal”, COVID 19 environment things keep changing like a person subject to unpredictable mood swings. At times, there does not seem to be any relief from unsettling news. Well, I hope that this column will help a bit to ease some of that. How? Why?

As you know from reading past rants in the Prez's Corner, our ability to resume our monthly outdoor contests has been complicated by two issues. First – How to deal with safety and social distancing at the flying field during the ongoing pandemic. Second – How to get the flying field in Perris back to a condition that will allow a reasonable walking retrieval of two-minute max flights.

The answer to our first issue, field safety, came by way of an e-mail from Don Bartick who had attended the USFF Championships in Lost Hills CA in September. That contest was held according to the USFF's new COVID 19 Protocol. That protocol contains five simple measures to abide by during model flying activities. The protocol was vetted and approved by the AMA. In short (paraphrased) the protocols encourage: 1.) If you have a temperature at or above 101, do not attend. 2.) Social distance (at least 6-feet from timekeepers, helpers and other competitors. If you MUST congregate remember to wear a mask. 3.) Please use hand sanitizer throughout the day. 4.) When using personal time cards to record your flights please record times in pencil as ink will run in contact with hand sanitizer. 5.) After completing a round please go to the scoring table and call out your scores for recording. Remember to social distance when near the scoring table (wearing a mask also helps – Mark). I will be sending a copy of the USFF COVID 19 Protocol to those on our monthly outdoor contest e-mail list.

Our second issue, conditions at the field that made retrieval of two-minute max fights difficult, was solved by a significant plowing-in of the mulch mounds. I visited the field about two weeks ago and was surprised to see that the mounds were totally plowed-in on the south and east side of the field and to a distance of approximately 300 to 400 feet beyond the first mulch line on the north edge of the field. I'm not aware of details of the negotiations and pro-activity that got the plowing accomplished but I think given past maintenance activities that the SCAMPS had some influence in getting the work done.

Given the above. I am pleased to announce that (weather permitting): **THE ORBITEERS OCTOBER 18 OUTDOOR CONTEST IS A GO!** Events will be coupe, glider and power. Flying starts at 8AM and ends at NOON. So, remember your hand sanitizer, masks, sunscreen and water and I'll see you in Perris on October 18. I've got a brand-new Winter Hawk II that I'm eager to test and if testing goes well. I'll be competing.

Let's hope that this starts the beginning of an uninterrupted run for our future outdoor contests. Looking forward to seeing you all on the field. It will be like a combination of “seems like old times again” and a reunion of sorts.

That's all for now.
Mark

“The raw materials of reality without the glue of time are materials adrift and reality is as meaningless as the balsa parts of a model airplane scattered to the wind” – Ken Kesity

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ORBITEERS MEMBERSHIP DUES

Annual Membership - \$20

Lifetime Membership - \$250

Non-Member Newsletter Subscription - \$15

Junior Members 16 years old or younger - Free

Submit Dues to Club Treasurer:

Howard Haupt
3860 Ecochee Avenue
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THE FINE PRINT THE FINE PRINT

El Torbellino is the official newsletter of the San Diego Orbiteers, an Academy of Model Aeronautics (AMA) Charter Club (#1113) and a California not for Profit Corporation. This newsletter is sent monthly to all paid members, selected exchange and magazine editors. Non-Members may subscribe at \$15.00 per year within the U.S.A., offshore price will be adjusted to reflect the postage required. Materials from El Torbellino may be reproduced on an unlimited basis by other publications, but proper credit is requested.

ORBITEER WEB SITE

www.SanDiegoOrbiteers.com

Webmaster: Kathy McLaughlin



Coupe launch – John Hutchison – Sept 2017

Wally Farrell's Rules of Thumb for Building and Flying Rubber Powered Scale Models

By Mike Jester



Wally Farrell of the DC Maxecutors model airplane club has accumulated an astounding 539 Kanones in Flying Aces Club (FAC) contests. A flier earns a Kanone for each event he wins where there are at least three competitors. Wally's total is more than one hundred greater than the next highest total. I have competed against Wally at WESTFAC contests in Buckeye, Arizona, and been beaten by him, along with everyone else. I recall that Wally won at least 12 Kanones at WESTFAC VII. Don DeLoach is probably the only flier that could beat Wally in FAC events on a consistent basis. Even then it would probably be a toss-up between these two legendary fliers in any given FAC event. I should probably put Tom Hallman and Herb Kothe in the same class. In 2012 Don published an article in the FAC newsletter telling everyone how to trim and fly an FAC scale model. His article included a formula for calculating the optimum CG for a scale model based on the tail volume, tail moment, etc. Wally has also published a few articles explaining his recommendations for building and flying scale stick-and-tissue model airplanes. I will summarize what I call Wally's rules of thumb in this article.



Tom Arnold - CD (left) and Wally Farrell - grand champion (right) at WESTFAC VII in Buckeye, Arizona - October 2019

1. Build a model that appeals to you but preferably one that has around a 24-inch wing span and a long nose moment. The stab area should be about 25% of the wing area.
2. Locate the motor peg so that the CG is 50% of the hook-to-peg distance. This allows you to change the weight of the rubber motor without changing the location of the CG.
3. Plastic props are fine but best results are usually achieved by re-pitching or cutting back on the diameter which effectively increases the P/D.
4. Use a prop with a diameter about 30-40% of the wing span.
5. Use a reliable clutch such as a tube-in-tube arrangement to ensure free-wheeling.
6. Use the Gizmo Geezer nose button so that you can dial in precise thrust line adjustments.
7. Use a long rubber motor - up to 4 times the hook-to-peg distance.
8. The rubber weight should be about 33% of the all up weight.
9. Divide the all up weight by 90 to get an estimated optimum rubber motor cross section.

10. Braid the rubber motor.
11. The rear end of the rubber motor should have a wobbly motor peg.
12. Use an S-hook on the prop shaft.
13. Use a round nose block plug with a spline and make the plug about ½-inch deep.
14. Build most of the bones of the model with 6-7# balsa wood.
15. Trim the model using John Koptonak's 10-step guide for trimming. This guide instructs the use of initial glide tests using a dummy nose block instead of a prop and no rubber motor, but with the CG located per the plan. Trim for a straight glide.
16. Fly the model in a right-right pattern unless it demands to fly left.
17. Use right thrust for the right turn in the power phase and allow the free-wheeling prop to cause a right turn in the glide. Avoid using right rudder.
18. If you must change the location of the CG, adjust the decalage accordingly.
19. Wind your rubber motors with a torque meter.

Wally builds beautiful looking models. He obviously knows a lot about rubber winding. I got into a fly-off with Wally in the Embryo event at WESTFAC VI. It was a single flight, and the longest flier in the air would win. I locked down the DT on my MAXOUT X Embryo. As usual, it climbed like a rocket, much faster and much higher than Wally's Embryomatic Embryo, which had a motor run that went on forever. The Embryomatic is a Don DeLoach design. I lost the fly-off and lost my MAXOUT X Embryo when it flew out of site after two minutes. Two days of searching failed to locate my beloved model. I have since lost my replacement Embryo, a red and blue Debut Embryo, flying in a contest at Perris, California. This time the DT was set but the model got lost in the jungle of weeds between the flight line area and San Jacinto Boulevard.



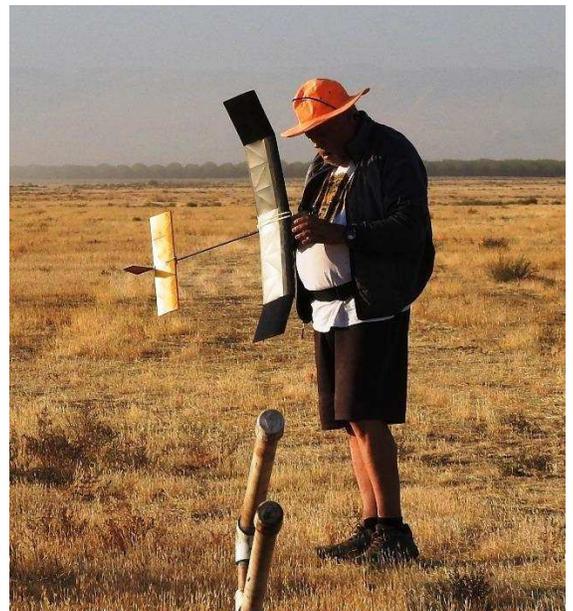
MAXOUT X Embryo by Mike Jester - Lost OOS in Fly Off with Wally Farrell



Photos from 2020 USSF 50TH Annual Event, August 2020 - Photos by Arlline Bartick



Don Bartick – Pit work, and Launch ----->



Stan Buddenbohm Power launch & flight preparations



Clint Brooks Power



Mike Pykelny
← Coupe Retrieval
&
Launch →



World Wide Balsa Wood Shortage

By Mike Jester

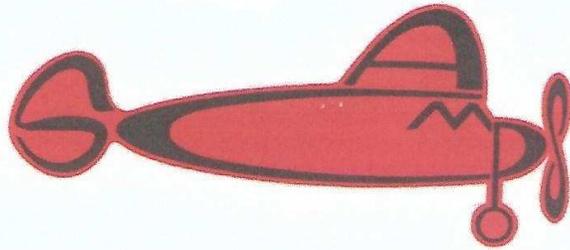


I was just getting over the discontinuance of the production and sale of Esaki tissue and now I have confirmed an even worse supply issue for our hobby. I had heard rumors of a world- wide balsa wood shortage. I recently asked John Hutchison about this rumor and he said that the shortage is due to the fact that balsa wood is being used in wind turbine blades and in double -hulled tankers. A little research confirmed what John told me. One article described balsa wood even being used as insulation in an LNG tanker. Imagine how much balsa wood that would amount to for just one ship. Query, why can't they use foam in wind turbine blades and tankers? It would not seem that the special tensile and flexural strength of balsa wood is needed in those structures. Allegedly the Chinese have cornered the balsa wood supplies in Ecuador. Prices of balsa wood are increasing significantly. About the only good news is that very light balsa wood may not be acceptable for industrial use. But what if we can no longer buy 6 – 10# balsa wood? What if the price of that wood in sticks and sheets produced for our hobby skyrockets? George Bredehoft, the proprietor of Volare Products, recently wrote that he was having to increase the cost of his short kits due to the increasing cost of balsa wood. One informed author on the Toronto Electric Model Aviation Club Forum predicted a doubling of balsa wood prices. I thought I had enough balsa wood in my inventory of model airplane building supplies to take care of many years of my own model building. I fear that I don't. So, I fired off an order to Specialized Balsa Wood, LLC for sheets of 6 –10# balsa wood in a variety of thicknesses. I may scour some ACE hardware stores for balsa wood when this darn pandemic goes away. I have had almost no luck at buying any decent balsa wood at Michaels stores. The Midwest Products website lists no sheet balsa wood products for sale. The prices listed for balsa wood on the Easy Built Models web site seem pretty steep.



Wind Turbine Blade





SCAMPS/SCIFS Old Time Fall Annual

Combined with SAN VALEERS Nostalgia Annual

****** Any Event can be flown on either day, do not have to finish same day! ******

October 24th & 25th, 2020, Lost Hills, California

Saturday

7 AM to 4 PM

*½ A Texaco (7 AM to 11 AM)**

A/B/C Pylon

30 Second Antique

SAM Gas Scale

Small Rubber Cabin

Large Rubber Stick

OT HLG/CLG

Bungee Launched 36 Inch Towline Glider

Large C/D Classic AMA Gas

Sunday

7 AM to 2:30PM

Texaco (7 AM to 11 AM)

A/B/C Cabin

.020 Replica

Large Rubber Cabin

Small Rubber Stick

Pee Wee Antique

Electric Nostalgia

Small A/B Classic AMA Gas

E36 Electric

Entry fees: \$10.00 registration (includes 1st event), \$5.00 additional events

Lost Hills Membership required

Gollywock Mass Launch Saturday 8:30 AM

Twin Pusher Mass Launch Sunday 8:30 AM

**1/2 A Texaco: 8cc fuel, any .051 or smaller engine, best single flight of 3 official flights*

SCAMPS CD Daniel Heinrich (909) 593-5789 AeronutD@cs.com

SAN VALEERS 71st ANNUAL & 32th NOSTALGIA ANNUAL October 24th & 25th, 2020 - LOST HILLS, CA. AMA Sanction 9761

A NFFS NATIONAL CUP & AMA AA SANCTIONED CONTEST
(SCAMPS/SCIFS contest same weekend with SCAMP CD Dan Heinrich aeronutd@cs.com)

AMA CAT II & NOSTALGIA CAT II** (WEATHER PERMITTING)

| SATURDAY 8 TO 5 | SUNDAY 8 TO 3 | BOTH DAYS |
|------------------------|----------------------|--------------------------------|
| 1/2A GAS | A GAS | P-30, HLG & Catapult Glider |
| 1/2A Nostalgia** | CD GAS | 1/2A Golden Age |
| B GAS | Nostalgia** | Nostalgia Rubber |
| Vintage FAI | BC Nostalgia** | Dakota One design timed target |

(all flights same day for each entry)

VINTAGE FAI

SATURDAY 8:00 am-1:00pm (5 1hr rounds) All flights 180 secs Flyoff at 2:00pm with 10 min window. Additional flyoffs if required 1 hr apart with 10 min window.

HUNTER MEMORIAL SUNDAY MORNING (weather permitting)-Sponsored by Mike Thompson

RULES: Any gas free flight airplane. 15 second VTO, 12 second H.L. Highest single flight time (no max) Starts Sunday at sunrise with 1 hr window (start time announced). Entry fee (\$1.00 per flight)

****NOSTALGIA** per latest rulebook except motor runs which shall be 10 sec HL, 13 sec VTO for 1st 3 flights, 7 & 9 secs on all flyoff flights. Classes scored separately for National cup but awards given for 1/2A Nostalgia, A Nostalgia, and BC Nostalgia combined.

1/2A GOLDEN AGE 1/2 A Models from 1957 to 1969 Engines:TD OR HH .049/.051, motor runs same as Nostalgia

Joe Wagner Memorial Dakota One Design Set target time before 1st flight. (Lowest score wins (seconds above or below target time) 3 tries. \$100 to winner

MERCHANDISE AWARDS (engines, kits, fuel, wood, \$\$\$, etc)

AMA CD: Norm Furutani norginf@gmail.com

Nostalgia CD: Terry Thorkildsen (805) 495-6135

AMA & Nostalgia: 1ST event: \$10.00, Additional events: \$5.00 per event or \$35 unlimited entry,

JRS FREE. Please bring exact change if possible to reduce handling money.

Masks when in proximity to others and social distancing per Covid-19 will be strictly enforced. Time cards to be kept by contestant until finished and times and model type, engine to be verbally given to CD's after each flight except HLG and Catapult Glider.

"JUST BRING YOUR MODELS AND SLEEPING BAG AND HAVE FUN"

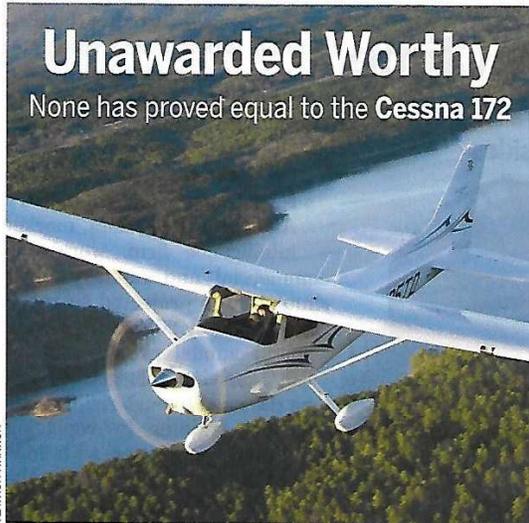


INSIDE BUSINESS AVIATION

WILLIAM GARVEY

THE COLLIER TROPHY GOES TO “the greatest achievement in aeronautics or astronautics in America” during the preceding year. One year it went to Chance-Vought’s F8U Crusader, a just-launched U.S. Navy fighter. Fine choice, but the right one?

After all, there was another aircraft that also first flew in 1955, Cessna’s Model 172 Skyhawk, a Mach 0.17 (125 mph) performer versus Crusader’s Mach 1.2. And yet that and its other modest numbers, including a



base price of \$8,750, made Cessna’s new low-tech model an instant hit. Why?

An iteration of the four-seat, high-wing Model 170, the 172’s principal difference was its landing gear. The 170 was fitted with two main fixed gear forward and a tailwheel, a so-called “conventional” configuration, whereas the 172 substituted a nosewheel for the tailwheel—a “tricycle gear” setup. To the unfamiliar, that may seem inconsequential, but most pilots prefer the latter by far.

A tailwheel plane’s nose points skyward while on the ground, and the angle can be so pronounced as to block the view of the pavement ahead. Consequently, the pilot must sashay while taxiing. And when landing, the runway can disappear again just before touchdown, making rollout an act of faith. Additionally, crosswinds require serious rudder and aileron work when taking off, touching down and on the ground since the forward placement of the main gear results in an aft center of gravity (CG), which, combined with a castoring tailwheel, can cause the aircraft to “weather-vane” into the wind.

By contrast, tri-gear aircraft sit level, providing a clear view forward when on the ground. And most nosewheels do not swivel, which, along with a forward CG, helps stabilize the aircraft from crosswind forces while on the ground.

The seemingly simple switch resonated with buyers, and Cessna delivered a remarkable 1,400 172s in 1956, the first full year of production. Thanks to that nosewheel and the aircraft’s stellar operating record, they have been buying ever since.

Martha King, a co-founder with her husband, John, of the well-known King Schools pilot instruction company, recently described the 172 thusly: “It’s dependable, predictable, well-mannered and maintainable by almost anybody.” To which John added: “And trustworthy, reliable and capable.”

In addition to their Dassault Falcon 10, the Kings have owned several 172s, purchasing their current one last year. Long a staple among flight schools globally, the Skyhawk, according to the Kings, is “part of the foundation of civil aviation.” Indeed, it seems most pilots, including many military aviators, have logged time in a 172.

And Mark Baker, president and CEO of the Aircraft Owners and Pilots Association, opines that the 172 is “about the most versatile and forgiving airplane out there, and a great choice for those both learning to fly and looking for their first airplane.” Baker has owned four of the type in his life, including one for his son’s and nephew’s flight training.

Cessna has updated the model regularly with more powerful engines and improved avionics—the current 172S features a 180-hp Lycoming engine and a Garmin G1000 cockpit—but save for the swept fin and rear windows added in the 1960s, its configuration is close to the original. Operators seem to approve.

The 172 Skyhawk has been in manufacture, with a notable interruption, since the outset. Cessna reportedly turned out more than 4,000 during the model’s first five years, but between 1986 and 1996 it suspended all lightplane production while the industry campaigned, ultimately successfully, to resolve product liability issues. Since then, annual Skyhawk output has ranged from 490 in 2000 down to 85 in 2010. Last year it delivered 126 and another 48 in the first quarter of 2020.

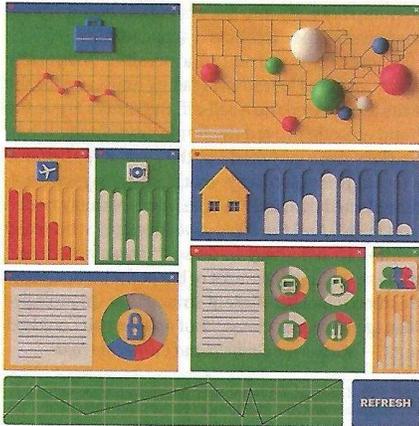
In total, more than 45,000 Skyhawks have been delivered, making it by far the most populous airplane ever produced, with more being added every month.

And while the retail price of a new 172 is now \$400,000, the Aircraft Bluebook notes that prices for 10- and 20-year-old models average \$280,000 and \$135,000, respectively—reasonable in a market where the age of a single-engine piston aircraft averages 46 years. As for an original 1955 Skyhawk: yours for \$25,000.

All in all, these are impressive numbers for a Medicare-qualified flying machine, one that continues in both widespread service and production. It seems award-worthy to me. Meanwhile, of the 1,261 Crusaders built, the Navy retired its last 33 years ago. ☺

William Garvey is Editor-in-Chief of Business & Commercial Aviation.

SAN DIEGO ORBITEERS
Howard L. Haupt / Editor
3860 Ecochee Avenue
San Diego, California 92117-4266



WHAT'S HAPPENING

-

October 2020

Local Events:

SDO will be flying Sunday October 18TH

F1G/Coupe, Glider, Power
2 minute max, Glider 90 seconds

See you at Perris CA - - - - - → October 18TH 2020



Regional Events:

San Valeers 71ST Annual & 32ND Nostalgia Annual

October 24TH & 25TH 2020 – Lost Hills CA.

AMA Sanction 9761 (See enclosed flyer for details)

SCAMPS/SCIFS Old Time Fall Annual

October 24TH & 25TH 2020 – Lost Hills CA.

(Combined with San Valeers Nostalgia Annual)

See enclosed flyer for details