

EL TORBELLINO

NEWSLETTER OF SAN DIEGO ORBITEERS FREE FLIGHT CLUB

SEPTEMBER 2015



The Prez's Corner – Don Bartick

Ah! September. This is the busiest month for the Bartick's. As all of you know out there in Orbiteers land, we have a vineyard and grow 4 varietals of wine grapes. Well, this is the harvest season. Normally from mid September to early October. Not so in recent years. The high temperatures in July and August have sped up the process considerably. The industry here in the Ramona Valley are now harvesting late August through mid September. This means lots of volunteering to help the local growers get there crop picked, crushed and pressed into wine. In fact, after I get this article sent off to Howard (late as usual) we will be pressing our Cabernet Franc. This will be it for us for now and I can get back to building and flying Free Flight. Yeah!

The Board met September 9th at Mike Pykelny's house. The food was great and the meeting prompted lots of discussion relevant to membership and locating a new local flying field. Look for the minutes of the meeting within this issue of the ET. BTW, we are still in need of a 7th Board Member. Please consider. It's the best way to get your voice heard and help the continuation/survival of our wonderful hobby. If interested, contact any Board Member. Members are listed in the front of the ET with contact information.

The indoor monthlies are now back in full swing since the 2 month break for Grossmont College to complete construction around the gym. Mother nature played havoc with the outdoor monthly in August due to extreme high heat. Us aging fliers just can't handle the heat like we used to. Let's hope September is different. BTW, the US Free Flight Champs at Lost Hills will be held just a few weeks (9/25-27). This is a must contest for serious Free Flights. There is a \$5000 purse to be distributed to those who place in any of the events. The events cover Old Time, Nostalgia, AMA and FAI. Go to the Lost Hill Free Flight

Model Airfield Association's website (www.lhffmaa.com) for details. Arline and I will be attending. Hope some other Orbiteers are going also.

We attended the last Scale Staffel's FAC contest held at Perris. As always, John Hutchison and William Scott put on a really nice event. I must say that flying scale aircraft is quite a challenge; at least for me. But as they say: "try, try again".

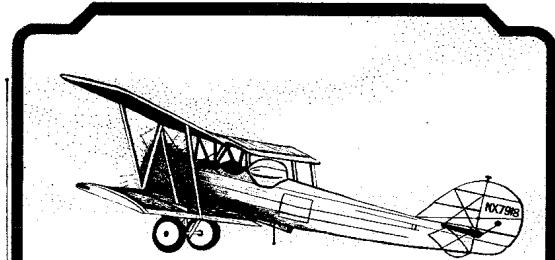
That's a wrap for now.

Remember: "Today is the tomorrow you worried about yesterday." -Author Unknown

Factualities

curious actualities

compiled by Louis R. Biro



Tuesday, September 24, 1929
Mitchel Field, Long Island, New York

Famous Aviator Lt. James H. Doolittle, in a canvas hooded cockpit, made the first "blind flight" in history. Operating entirely on instruments, he took off, flew a course of fifteen miles and landed safely. Hailed as one of the most important strides made in overcoming adverse visibility conditions, and perfecting practical commercial aviation for the future.



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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:

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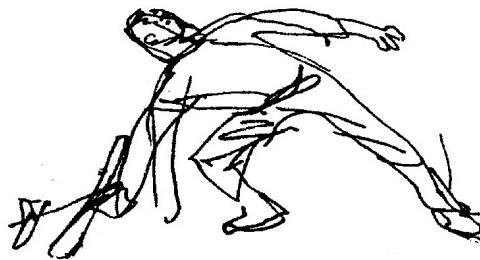
THE FINE PRINT THE FINE PRINT

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



2015 INDOOR FLYING SCHEDULE

Sept 6 - Catapult Glider, Embryo*

Oct 4 - A-6, Phantom Flash*

Nov 1 - Penny Plane, No-Cal*

Dec 6 - Catapult Glider, Embryo*

*Non-ORBITEER Points Event

2015 ORBITEER FLYING SCHEDULE

Sept 20 - **Coupe**
Power & Glider
(No rain date)

Sept 25/27 US FF Championships, Lost Hills*

Oct 18 - **P-30**
Power & Glider
(Oct. 25TH rain date)

Oct 21/25 WESTFAC V, Buckeye Az.*
Scale Staffel FAC Scale Contest*
(3 of 3)

Oct ???/? SW FAI Champs, Boulder City, NV*

Nov 16 - **Old Time Nostalgia Rubber**
Power & Glider
(No rain date)

Dec 13 - **Coupe**
Power & Glider
(No rain date)

* Non-Club Points Event
Otay Field Weather (619) 661-8297

OLD / NEW BOX BUILD - D.Scigliano

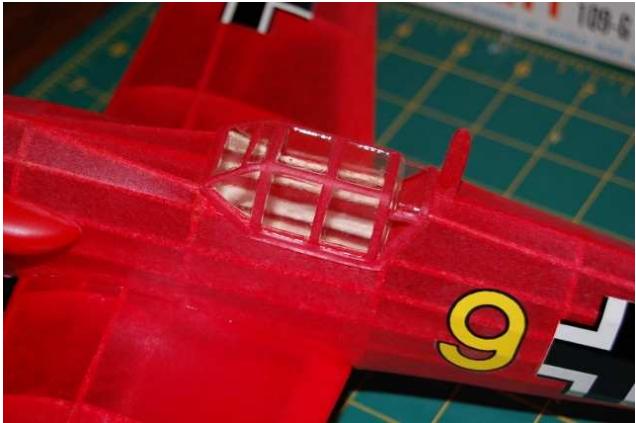
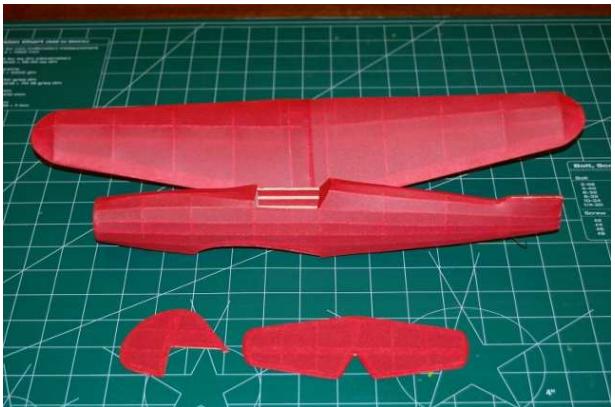
Here is a blast from the past, out of the box Sterling ME-109-G. This is an old Sterling kit build with all the kit wood with only modification was to the removable nose block. Typical Sterling kit with heavy die crunched wood but hey that's how it used to be right? As shown she weights a whopping 40 grams with 15 grams coming from the wheels. I can replace those with Peck wheels to save some weight if needed. The problem with the kit was all the plastic was red, and everyone knows trying to paint red plastic is tough. The tissue in the kit is light weight silkspan, great stuff but can be a little heavy for a model when painted. The other problem is the silkspan was brown from age, so I went with Peck Polymers domestic red tissue. The red was a perfect match for the plastic parts. I did find a couple of red ME-109's and of course one of my favorites is a old plastic Aurora model kit molded in red. The

construction was straight forward using Testors wood cement for the old porous balsa wood. Sterling kits are famous for hardware and making moveable parts such and a bomb dropping mechanism. For time of build I omitted this part of the build, could never get to work anyway. Covering was applied with thinned Elmer's white glue, wet domestic tissue for the fuselage and dry tissue for the wing surfaces. I covered the fuselage with 2 pieces of tissue, sure a lot faster than strips of tissue. Even though I used the thinned glue mixture for attaching tissue, I advise against it, since domestic tissue is delicate when wet. I have been covering this way since the early 80-'s when the forefathers at Scale Staffel taught me. If someone were to cover with wet domestic tissue I would advise to use a glue stick or the old dope method. After the covering was applied, I brushed on 2 coats of Aerogloss dope cut with Dave Brown Flexall to prevent warps. All and all a good trip down memory lane, cannot wait to take her out for a test flight.

As an additional note, I used the original kit decals, they went on pretty well with some help from thinned Elmer's glue.



ME-109 Build Pictures Continued:



PAST & PRESENT - K.Gies

Prelude: Bendix Golf Course in New Jersey August 6, 1939 & Somewhere in England year 1949 at a huge free flight contest on a large grassy field.

Late yesterday afternoon I went out to Lewistown International Airport (located in Montana) to fly my 1939 Korda Wakefield and 1949 Keil Kraft Gipsy Wakefield in preparation for the upcoming SAM CHAMPS. The temperature was in the high 60's and the breeze was reaching up to 8 mph.

The '39 Korda has a brand new single bladed folder that was just finished. It already had a couple of flights the day before and the prop ran smoothly thanks to Jim Mosley's suggestions on how to balance the single bladed folder. The prop balanced well, but bending back the counter balance arm a little bit did the trick.

The '39 Korda was launched and suddenly everything was different. *The day was extremely hot and there were many other modelers and a huge crowd of people. Other contestants were calling me Dick and congratulating me on a very long flight.* Then my '39 Korda came down and this transformation vanished. After a long walk, about a third of mile out, I got back with the model and put it back in the pickup.

Next up was the Keil Kraft Gipsy which has not been flown since massive repairs and recovering the entire model in addition to carving a new free wheeling prop. I made a couple of test flights and made an adjustment that would prove out. This time I put on about 300 turns and during a lull in the breeze launched it. Suddenly everything was quite different. *Looking down I discovered my jeans were now knickers and also found myself to be wearing brown oxford shoes and a nice shirt with a necktie. No longer was I flying on a wheat field but a huge open green field with literally hundreds if not thousands of people looking on and many other flyers and models in the air. My model had climbed*

pretty good and was now down. And there I was back in the stubble field alone with my pickup.

I returned home in time for supper preceded by a goodly amount of dry sherry resolving to get out and fly vintage Wakefields more often. Cheers, cccnh (Article photos follow)



39' Korda Wakefield as built in 1968, B/W
Photo of black and red plane.



39' Korda Wakefield recovered after crash
At 95 SAM Champs and flying today.

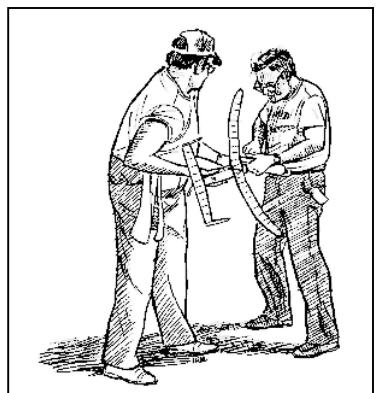


49' Gipsy Moth Wakefield Built in 1967, badly
damaged hitting car at 91 SAM Champs,
recently rebuilt as shown.

Ad as run in July 1949 AeroModeller



A striking photo taken of a Jerry Zeigenfuse BUSTER, built by Karl Geis



SEPTEMBER 2015 INDOOR RESULTS

September 6, 2015		Event: Catapult Launch Glider (7 entries)			Airplane		
CONTESTANT'S FULL NAME		1	2	3	4	5	(Best two of nine)
Greg Hutchison		22	23	23	11	20	5
John Hutchison		20	18	18	23	3	15
Bill Hill		8	8	4	4	10	7

tie was broken by best single flight out of three

Greg	23
John	22
	3
	21

CD: William Scott

CD: William Scott

JULY 26, 2015 OUTDOOR MONTHLY

P-30

		TOTAL	PLACE
1.	Mike Jester	360*	1
2.	John Hutchison	360*	2
-.	Ates Gurcan	316**	
3.	Greg Hutchison	276	
4.	Don Bartick	266	
5.	Mark Chomyn	258	
6.	Mike Pykelny	251	

*Mike Jester won in fly off with 160 to John Hutchison's 132.

**Ates Gurcan came down from the Bay Area to see his daughter.
He heard about our contest and dropped by to fly.

Power Combined

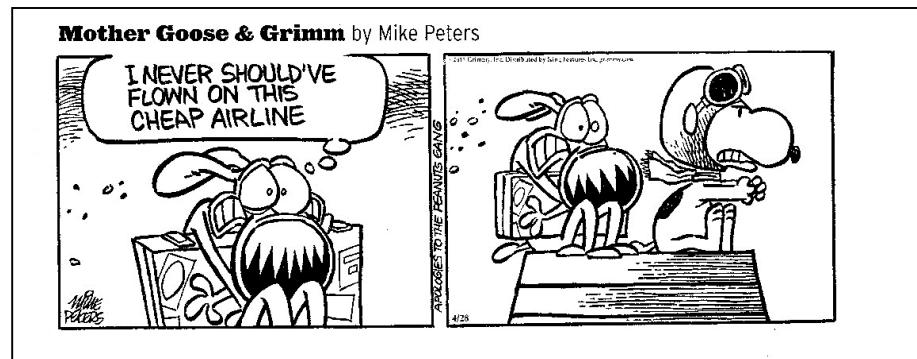
1.	Mike Pykelny	301
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Glider

1.	Mike Jester	122
2.	Don Bartick	99
3.	Mark Chomyn	57

Results supplied by M.Chomyn

Correction to July results published in the August El Torbellino. (Ed.)



San Diego Orbiteers Quarterly Board of Trustees Meeting September 9, 2015
Held and Mike and Linda Pykelny's home.

There were 8 of us in attendance tonight, including our gracious hosts, and also including President Don Bartick and Arline, John Hutchison and Kathy, Mark Chomyn, and John Merrill.

After a great dinner, Don called the meeting to order at 7:17p.m.

Minutes of the previous board meeting were approved as published. Many thanks again to Mike Jester who took meticulous notes at the last meeting.

Treasurer's Report: approved as distributed.

Membership Report: there are a few that have potential. No names given.

Old Business:

Membership Campaign: much talk of designing a "rack card" of model shops, flying clubs, etc. Linda will look into distribution sites. John H. will talk to William Scott about the design. Don and Arline will work on the artwork. John H. also said he would talk to William about how to get a space at the Del Mar Fair. Mike is also going to look into the possibility of getting a booth at the next Wings Over Gillespie airshow, which is normally in June and hosted by Air Group One of the CAF.

Search for a flying field: Don said he heard from Howard there is a possible site that is public accessible on Camp Pendleton in North County. Don and John M. will be going to the County Assessors office in El Cajon in the next week or two to see about another field that is closer to the location we've flown in for years down near the border. Lots of other land down there, and we can hopefully make some arrangements.

Website: Kathy will make sure the old flying site at Otay is off the website, and will ensure the new one in Perris, CA is installed.

Recommendations for 1 additional board member: none discussed. If anyone

wants to volunteer, you are more than welcome. Come and join the group that helps shape YOUR club!

New Business: Some talk of policies and protocol regarding when and how to cancel contests, if need arises due to weather or other circumstances.

Schedule the next board meeting: Don and Arline will host next time, on Wednesday, December 9th, 2015. Next in the rotation after the Barticks are Jester, Hutchison, Merrill, and then Chomyn.

Contest Reports: John H. reported that Grossmont college gym is open, and at the last meet Embryo and Catapult Glider were flown. There was some good competition. The Scale Staffel contest was a few weeks ago in Perris, CA. There was a good turn-out, and lots of flying. The next contest is the big one, WESTFAC in Arizona October 21-25. Don mentioned the U.S. Free-Flight Champs coming up in Lost Hills on Sept. 25-27.

Good of the Order: Don and Arline took two kinds of wine to the Del Mar Fair this summer, and placed very well. Their Merlot won Silver, and the Cabernet Franc won best of class. Congrats to Don and Arline!

John H. reported that he heard from fellow Scale Staffel member that former S.S. member John Laycock had passed away. John L. was a magnificent builder and flyer, and came up with many innovations in the building of very beautiful model aircraft. John H. also said he will be having cataract surgery soon. This will be his second eye to have the procedure, the first went very well. We all wish John the best as he has his second one done.

Call for Adjournment came at 8:37. Thank you once again to our gracious hosts Mike and Linda for having a wonderful meal prepared!

Submitted by J.Merrill
- Board Secretary



Braiding Rubber Motors

By Mike Jester

Braiding of a rubber motor is done to prevent bunching of the rubber motor and shifting of the CG of your model airplane during the motor run while the airplane is in flight. This can be a problem where the rubber motor is much longer than the prop hook-to-motor peg distance. The reason for having a longer rubber motor is to pack in more turns, and hopefully keep the airplane aloft for a longer time. Rubber motors unwind from the front and remaining knots tend to crawl toward the rear. It is irritating to see your airplane start stalling during the glide phase of the flight, when you know that it was previously well-trimmed. If nothing has broken or warped on your airplane, the culprit could be a rubber motor that has bunched (and not unwound) toward the rear of the fuselage, placing a few extra grams back where you don't want them.



Even if the prop assembly has a conventional spring tensioner, like a Gollywock folding prop assembly, bunching and shifting of the CG can still be an issue. The GizmoGeezer prop assembly has a sophisticated spring tensioner. I have never had any rubber motor bunching problems during my years of experience with this easy-to-use prop assembly. Thanks Orv Olm! A graphic image in the GizmoGeezer marketing materials even includes a "No Braiding" legend. So if you stick with the GizmoGeezer prop assembly in all your models, you can avoid the hassle of braiding rubber motors. However, the maximum GizmoGeezer prop diameter of 9 ½ inches makes this prop assembly unsuitable for larger models like the Gollywock, FAC Jumbo Scale models and vintage Wakefields. The smallest GizmoGeezer prop assembly has a seven inch diameter prop and it is too heavy for Embryos, Peanuts, and No-Cals.

On airplane models that have no fuselage enclosing the motor, like the Phantom Flash and No-Cal models, an overly long rubber motor can dangle when the turns are gone. A dangling rubber motor pulls rearwardly on the prop shaft and often prevents a plastic prop with a helical ramp on its forward face from free-wheeling after the motor run is complete. Worse, on such models a slack rubber motor can detach from both the prop hook and the rear hook, and fall to the ground, resulting in a DQ if your stick-type model was on an official flight.



The Coupe (F1G) and P-30 classes each have a ten gram maximum limit for the rubber motor. In part because they tend to use standard props, nearly all of the designs for these classes have a prop hook-to-motor peg distance that makes it easy to make up a motor with the optimum cross section that is slightly under the ten gram limit and does not require braiding. Unfortunately, this is not the case for lots of rubber powered model airplanes in other classes, and scale models in particular.

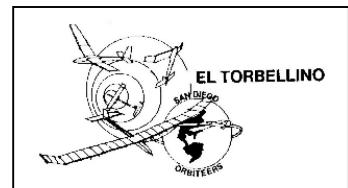
There are many different techniques for braiding rubber motors, but they all share the same basic principles. Of course the optimum weight and the overall thickness (cross section) of the rubber motor still needs to be matched to the airframe and prop. However, braiding does not affect these parameters for a given airplane model, it just usually eliminates the motor bunching and shifting CG problem. A side benefit of braiding is that it avoids the necessity of putting dental bands or thread around the loops at spaced apart intervals to avoid tangling during storage.

While the braided motor looks thicker, effectively it has the same cross-section as an unbraided motor made of the same number of identical width strands of rubber. Both braided and unbraided rubber motors that are made of the same number of strands of the same rubber strip width should generate the same torque for a given number of turns. It has been said that braiding rubber motors causes some loss of power. Even assuming this is true; the minimal loss of power is a very small price to ensure a no-stall flight. Prior to winding, the braided motor may only be a few inches shorter than its non-braided counterpart. However, when wound, the braided motor will behave as if it were significantly shorter in terms of avoiding bunching during the final portion of the motor run. Here are pictures of an unbraided 25 gram motor made of four loops of one-eighth inch rubber, and the same motor after braiding.



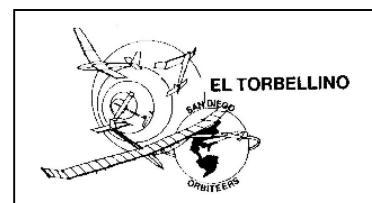
I will now describe techniques for braiding single loop and multi-loop rubber motors. You may have your own preferred techniques that are slightly different. However, hopefully the following explanations will be useful to the non-experts in our hobby.

Single loop rubber motors can be braided by first slipping an O-ring over a strand of rubber of suitable width and weight. A small loop is then tied in each end of the strand.



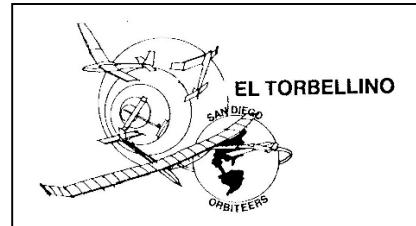


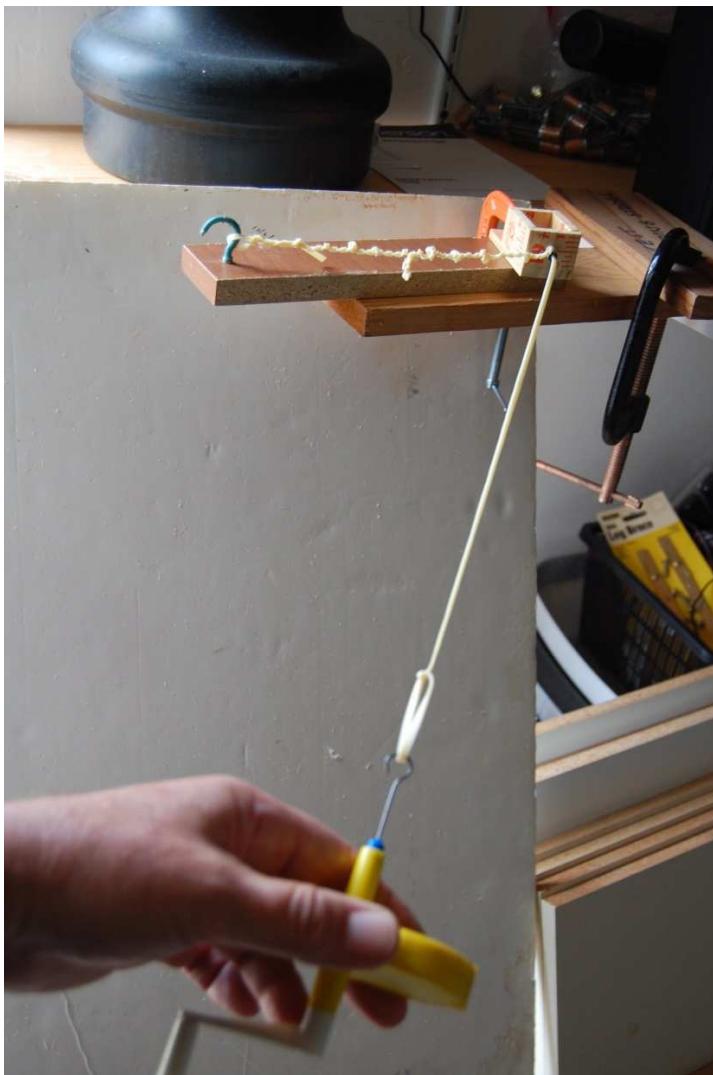
Put the O-ring over a fixed hook mounted to a fixture or work bench and pull out two equal length segments of the strand of rubber. Place one of the small pre-tied small loops over the hook of a winder. After stretching a bit, wind several turns per inch into the first segment, winding in a clockwise direction. The first segment should not have too many turns, i.e. as indicated by knotting. This can decrease the performance of the braided rubber motor. I like to put in just enough turns so that some knots begin to form and then back off just enough turns so that any previously formed knots disappear while the first segment is stretched out.



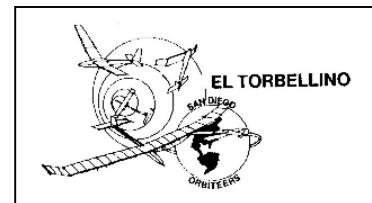


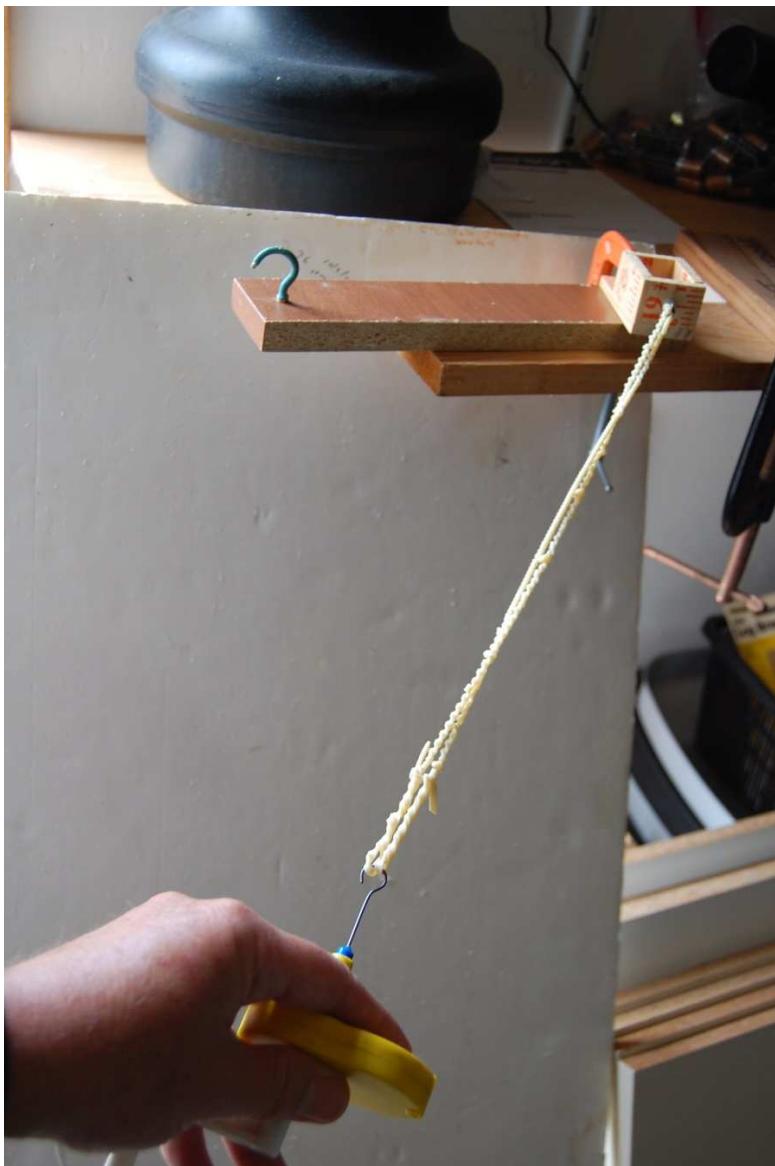
Remove the small loop of the wound segment off the hook of the winder and secure it to another fixed hook or other fixture. Alternatively, you can have someone nearby hold the small loop of the wound segment so that it does not unwind. The knots in the first segment which are visible in the picture hereafter formed after that segment was relaxed. Don't worry about them. They go away in one of the later steps of the braiding process. Place the small loop of the remaining unwound segment onto the winder and stretch it out a bit.



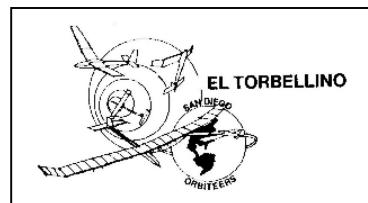


Wind the other segment in the same clockwise direction on the winder, with the same number of turns. Place the small loop of the previously wound segment back onto the hook of the winder.





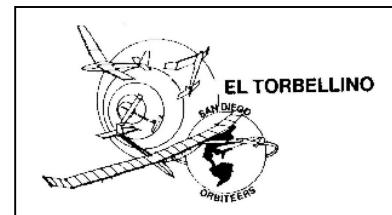
Let the segments unwind naturally around each other using their own stored angular energy, with the crank on the winder turning counter-clockwise. Smooth out the braiding by massaging, if needed.





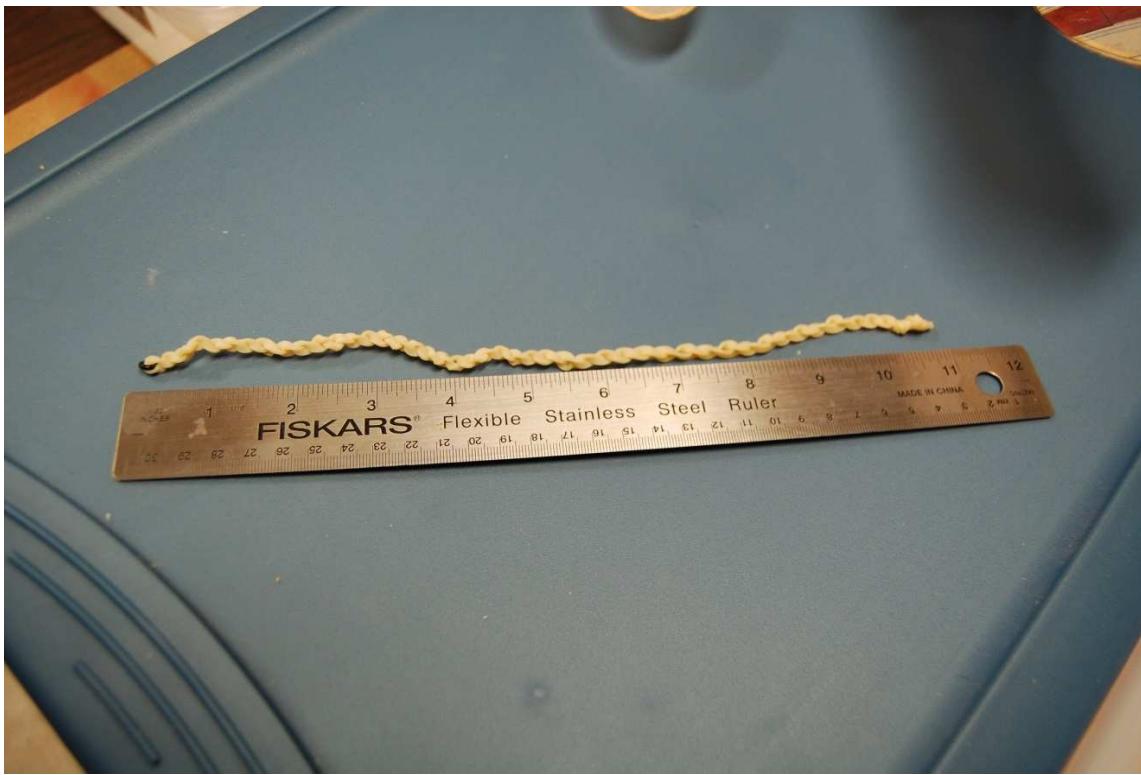
Cut off the small loops and tie the two segments together. If you know how to tie a fancy slip knot, like Bob Hodes, you can untie the small loops before tying the ends of the segments together. This makes it easier to get a single loop braided motor close to the target weight.

One way to avoid having to tie and untie the small loops is to use a pair of mini-sized Acco® clips. These are springy metal clips with black jaws that you can clamp to the end of each segment and then connect one of their chrome-colored arms to the hook of the winder. You can purchase these clips from any Office Depot or Staples store.





The 2.92 gram roughly 11 inch long single loop braided motor in the picture hereafter was made from one-eighth inch rubber using the previously described process. It was made for my Piper Pacer No-Cal model that has a prop hook-to-motor peg distance of only $7 \frac{3}{4}$ inches. When it unwinds on the motor stick after being fully wound, it doesn't extend the full 11 inches and doesn't hang very far below the motor stick.

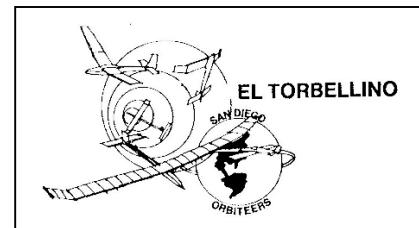


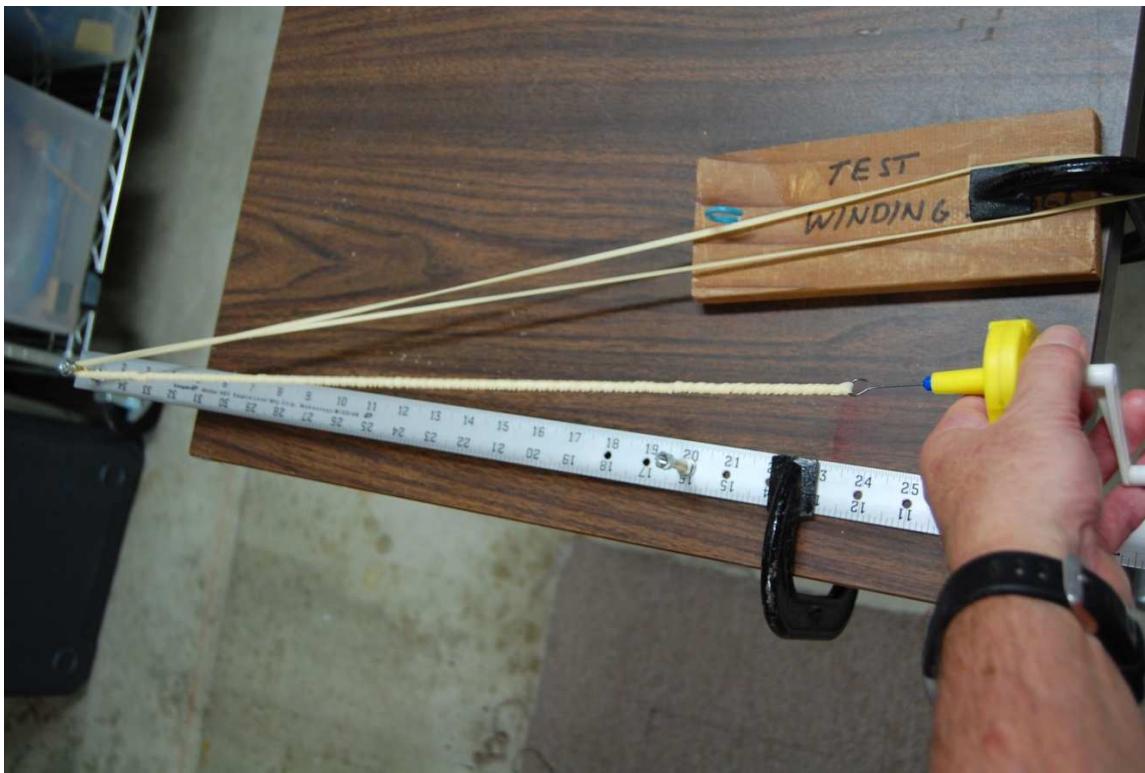
Multi-loop rubber motors can be braided using a similar process. First, tie the ends of a suitably long length of rubber together. Form the desired number of loops. It may help to use a rubber motor jig of the

type that used to be sold by Starlink Flitetech Models. You can make a similar rubber motor jig with a metal yard stick and a couple of spools made of Brass tubing that rotate on bolts secured to the yard stick. One of the spools is longitudinally moveable to different attachment holes spaced along the yard stick. While one set of ends of the loops are on the spool furthest away from you, pull out on the loops until they are equal in length. Make sure that the knot is at one end of the set of loops.



Tighten on a dental band near the far spool, around all of the loops. John Hutchison prefers to tie thread around the rubber loops rather than use dental bands. Divide the loops into two groups each having an equal number of loops. The desired rubber motor may need to have an odd number of loops to achieve a desired overall cross-section. In such a case, one the pair of groups can have an additional loop and be wound in the same manner. In the example shown, one group consists of two loops and the other group consists of one loop. Wind each group separately taking care not to form any knots.





If you are making a braided rubber motor for a model with a folding prop, make sure it is not too short, otherwise the prop won't fold. You can lengthen the braided motor by lessening the equal number of turns you put into each group of loops.



Wind each group in a clockwise manner, and then place the wound groups together on the winder. Let the joined groups unwind naturally, i.e. under their own force, in a counter-clockwise direction.

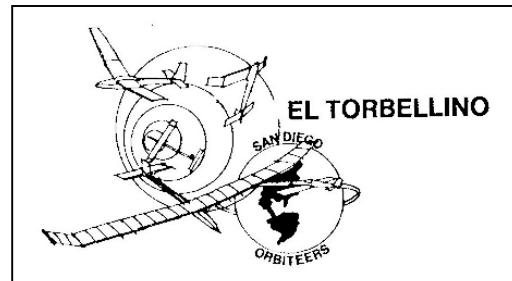


Tighten on another dental band to keep the other ends of the loops of the braided motor arranged for inserting a motor peg or Crocket hook through the same, depending on whether the knot is at this end. Of course the knot should always be placed next to the motor peg when the rubber motor is installed in your model airplane. It may help the braiding process to lube the loops of rubber before braiding and to smooth out the rubber motor once braided by massaging the same. In the example shown in the last five pictures a 12.95 gram braided rubber motor was made from three loops of one eighth inch rubber. This rubber motor would have been 26 inches in length if it had not been braided. Braiding reduced its length to 20 inches.



In making up multi-loop rubber motors, I have found it more difficult to form an odd number of equal length loops, particularly with 1/16 inch rubber, unless you use a rubber motor jig. A very long strand of rubber that is small in width can quickly turn into a tangled mess if a winding jig is not used. It is relatively easy to tie the ends of a long strand of one-eighth inch rubber together and then fold the initial large loop to achieve two loops, four loops, eight loops, etc. I can also fold in thirds to achieve six and twelve loop motors. If I really need a rubber motor with a cross-section that cannot be achieved in this fashion I can try using a single long length of rubber of one-sixteenth of an inch in width, or in some cases, three-sixteenths of an inch in width. I recently used 0.083 inch rubber strip to form a motor for my Gollywock that has eight loops. I wanted a cross section that was greater than one inch but less than one and one-half inches. The resulting cross section of this rubber motor was 1.33 inches. Four loops of one-eighth inch rubber give you a cross-section of one inch. Six loops of one-eighth inch rubber give you a cross section of one and one-half inches. I didn't want try to make a rubber motor of five loops of one-eighth inch rubber.

One expert has commented that the process of braiding rubber motors is really harder to describe than to execute. Try it, if you haven't already. You'll be glad you did.



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WHAT'S HAPPENING - SEPTEMBER / OCTOBER 2015

Sept. 20 **Orbiteer Outdoor Monthly,**
SCAMPS Field, Perris CA., 8:00 am.
Feature Event: **Coupe** Other Events: **Power & Glider**

Sept 25/27 US FF Championships, Lost Hills CA.

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Oct. 4 - **Indoor Flying**, Grossmont College (Upper Gym), 7:30 am to 11:30 am.
Feature Event: **A6**, Other Event: **Phantom Flash***

Oct. 18 **Orbiteer Outdoor Monthly,**
SCAMPS Field, Perris CA., 8:00 am.
Feature Event: **P-30** Other Events: **Power & Glider**