

# Radio Controlled Soaring Digest

August 2014

Vol. 31, No. 8





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**Front cover:** A two meter Lanyu belonging to Chris Leal makes a steeply banked turn near Cape Town, South Africa. Photo by Steve Meusel, courtesy of Kevin Farr. Canon EOS 60D, ISO 100, 1/1,000 sec., f5.0, 20 mm

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David Nutt presents a 90° alignment fixture of fiberglass and resin which has a number of applications.

## Tom's Tips Three Quick Tips 34

Tom Broeski demonstrates how he removes epoxied servos, prevents "bench rash" and the loss of small parts, and avoids the confusion inherent in using a gear wrench.

## International Vintage Glider Meeting 37 commemorating Vittorio Bonomi

Ten vintage gliders, five from neighboring Switzerland and five from Germany and Italy, participated in this event at Giancarlo Maestri Airport of Alzate Brianza (Como), organized by the Aeroclub Volovelistico Lariano (AVL). Text by Vincenzo Pedrielli, photos by Vincenzo Pedrielli and Stefano Corno.

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**Back cover:** Kevin Farr pilots Chris Leal's three meter F3B version of the Lanyu near Cape Town, South Africa. Photo by Steve Meusel, courtesy of Kevin Farr. Canon EOS 60D, ISO 100, 1/640 sec., f11, 85 mm

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# *R/C Soaring Digest*

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B<sup>2</sup> Kuhlman

Contact

bsquared@rcsoaringdigest.com

rcsdigest@centurytel.net

<http://www.rcsoaringdigest.com>

Yahoo! group: RCSoaringDigest

FaceBook: <https://www.facebook.com/RCSoaringDigest>

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## *In the Air*

Something a bit different leads off this issue... an 18 page pictorial. This covers in photos the construction of the Dynamo, a DLG being produced as a laser-cut kit by Felipe Vadillo, Argentina. Our thanks to Felipe for providing the more than 100 images included in this presentation. If you want a Dynamo kit or wish to laser-cut your own Dynamo, contact Felipe at [felipecvadillo@hotmail.com](mailto:felipecvadillo@hotmail.com).

### FAI provisional Class F (Model Aircraft) World record claims:

Claim number : 17254

F5 Open (Radio Control Flight), Electrical Motor Solar Cells

Type of record : Duration: 185

Course/location : Nantes (France)

Performance : 4 h 55 min

Pilot : Roger Thierry (France)

Members : Patrick Vallet (France)

Date :16.07.2014

Current record : no record set yet

Claim number : 17255

F5 Open (Radio Control Flight), Electrical Motor Solar Cells

Type of record : Distance in a closed circuit: 190

Course/location : Nantes (France)

Performance : 130.00 km

Pilot : Roger Thierry (France)

Members : Patrick Vallet (France)

Date :16.07.2014

Current record : no record set yet

Time to build another sailplane!



# Assembling the *Dynamo*

*a DLG designed and kitted by Felipe Vadillo*

Felipe Vadillo, felipecvadillo@hotmail.com

<http://www.fmgglaserkits.blogspot.com.ar/2014/01/minitermico-2014-dynamo.html>



*The Dynamo on the podium.*

The Dynamo is a laser-cut DLG kit available from FMG Laser Kits in Argentina. This model won first through third places in the Minitermicos event at the 2013 Argentina Nationals. See photo. Marcelo Azcurra took first with the 2014 version, second place Rodrigo Salvador and third place Matias Azcurra both flew the 2010 ultra light weight version.

In-flight video at <<https://www.youtube.com/watch?v=gl6W-LFyKek>>.

Two wings are available for the Dynamo. The “normal” wing utilizes the HM-51 airfoil, solid wing ribs and main spar, and D-tube sheeting along the entire span. The “light weight” wing uses the HQ 2.5 and has lightening holes in the ribs and spars, as well as having no D-tube sheeting in the outermost (#4) panel. The light wing version of the Dynamo has a flying weight of 210 grams/7.4 ounces. This pictorial covers both wings.

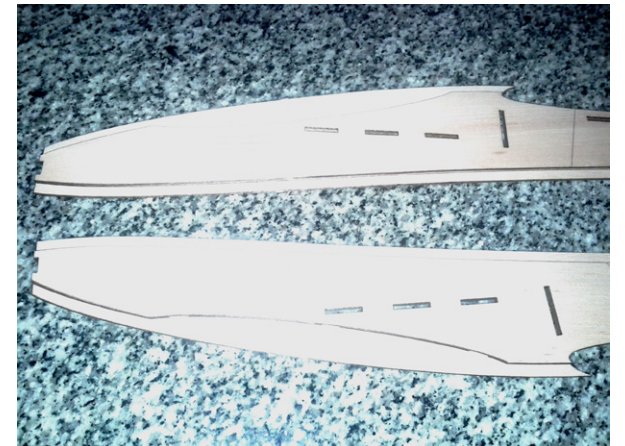
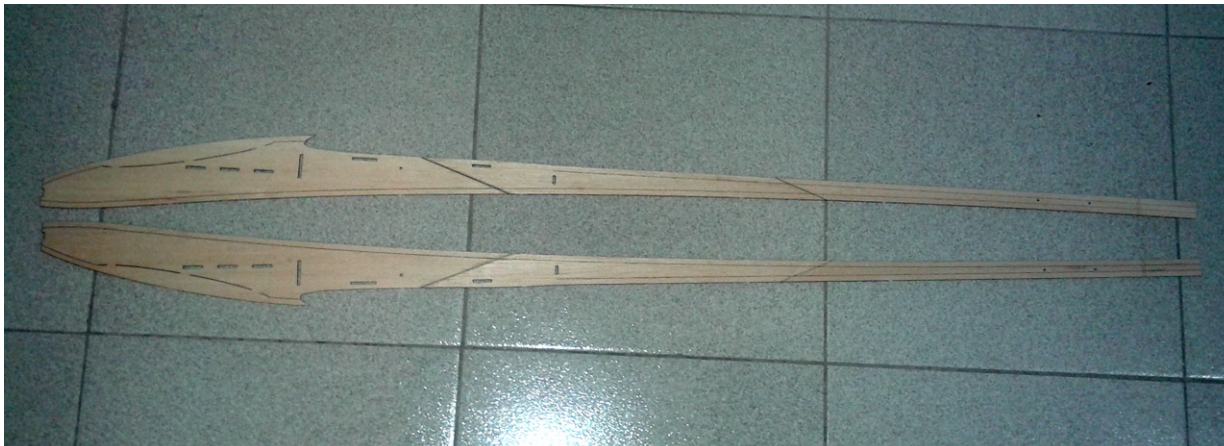
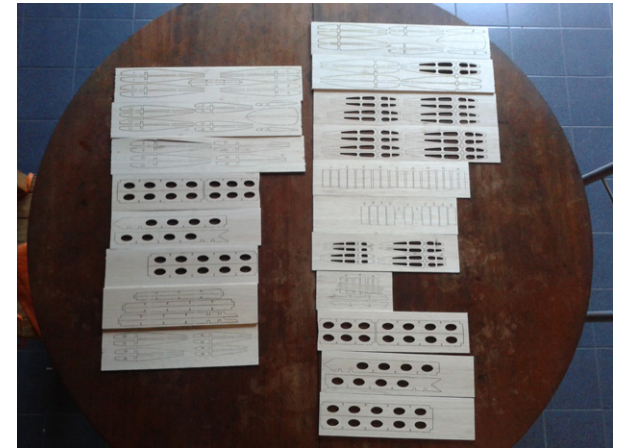
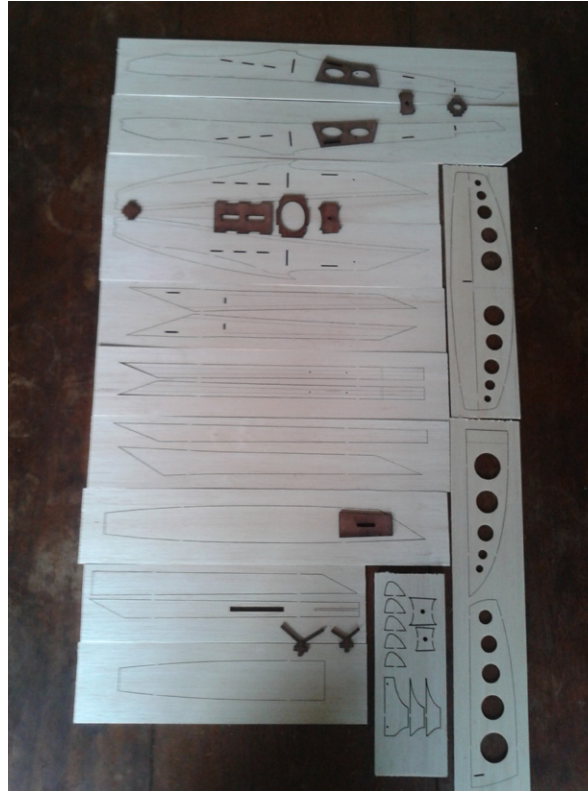
Kit pricing is as follows:

Fuselage kit	550 Pesos (ARS)
Versatile (normal) wing kit	650 Pesos (ARS)
Light weight wing kit	650 Pesos (ARS)
Combo 1 (Fuselage and either wing)	1100 Pesos (ARS)
Combo 2 (Fuselage + Versatile wing + Light wing)	1600 Pesos (ARS)

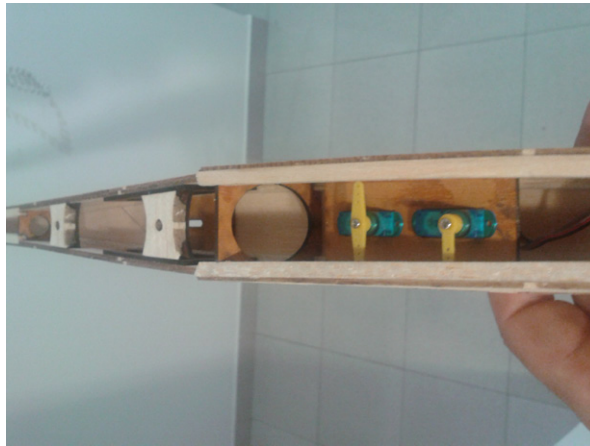
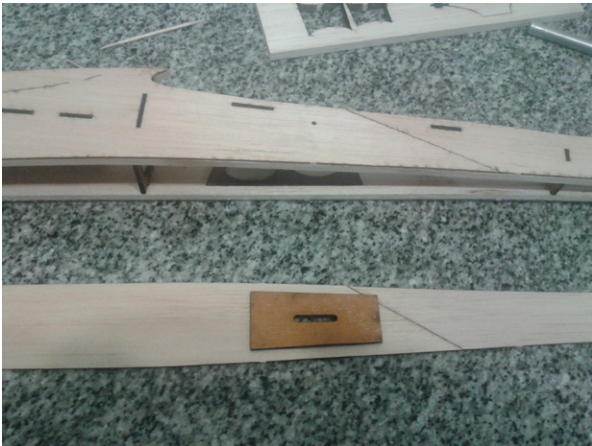
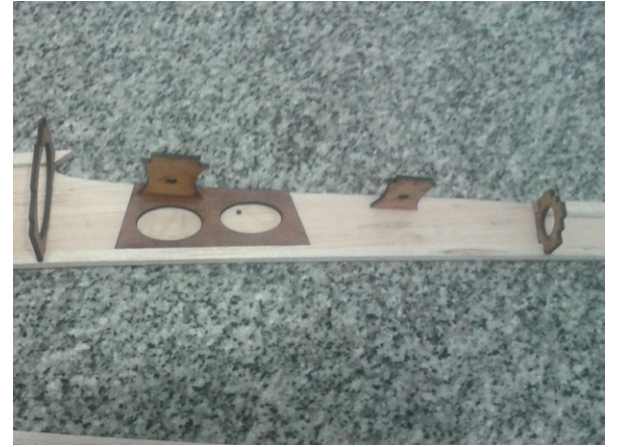
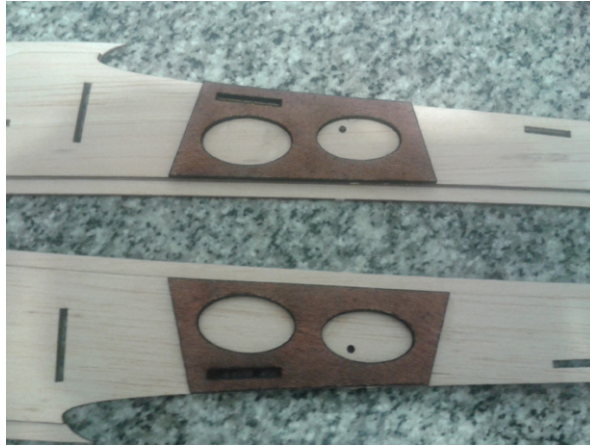
Kit includes wood, plans, tow hook, pull-pull control accessories, metal wing screw.

Laser cutting files are also available, contact Felipe for information.

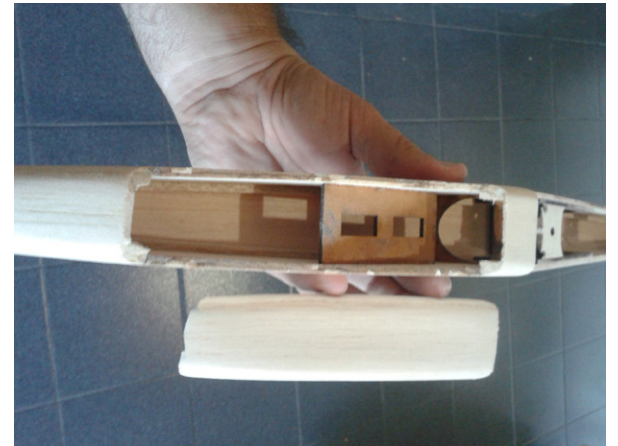
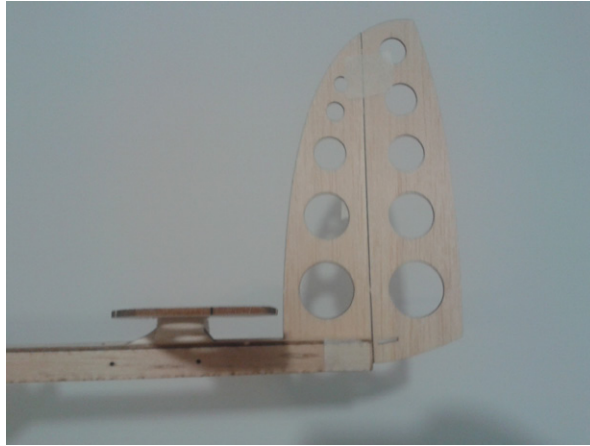
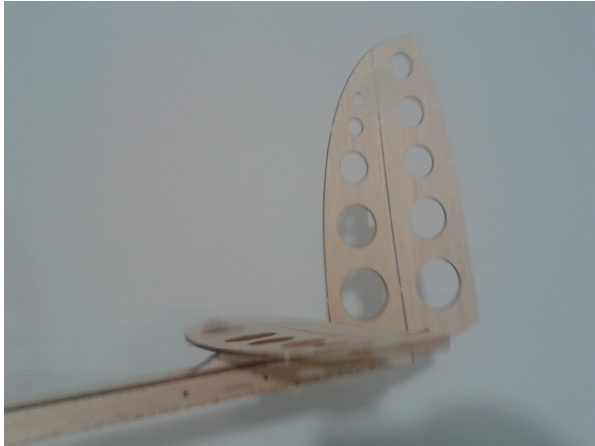




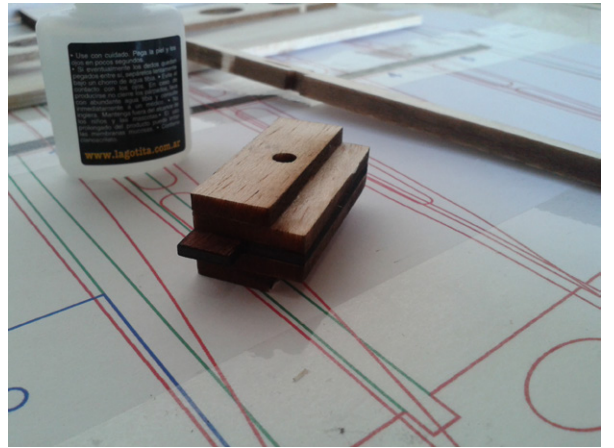
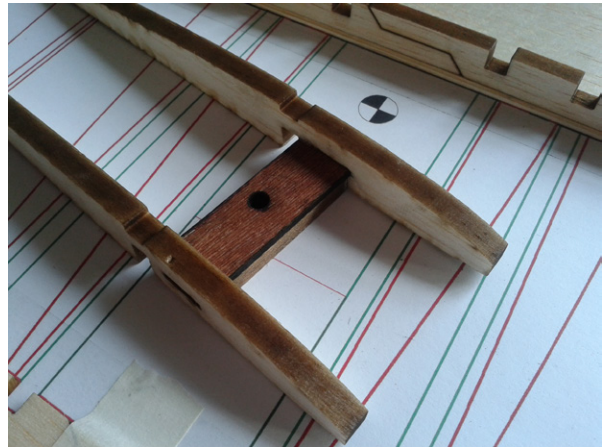
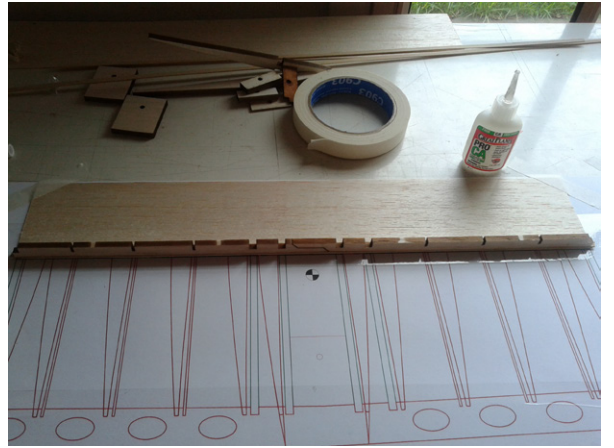




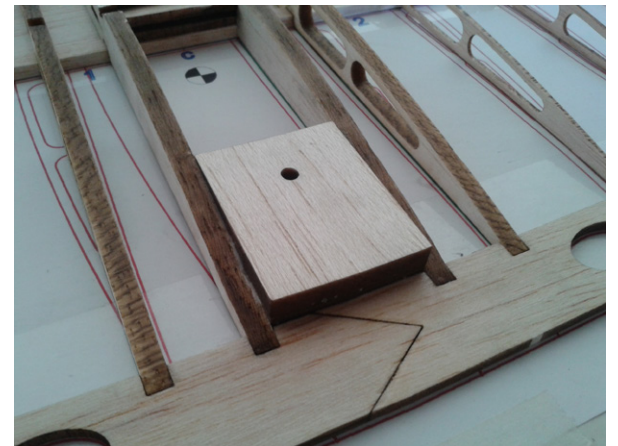
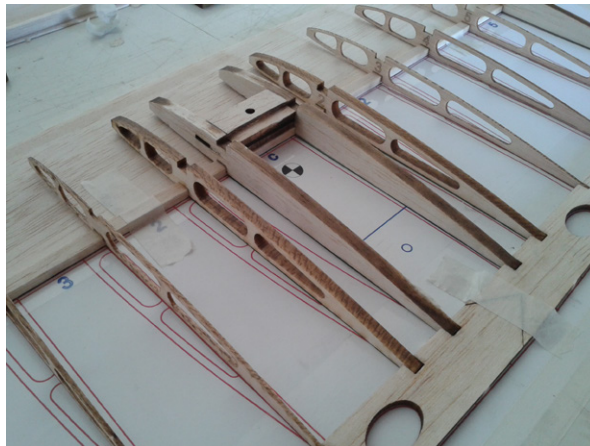
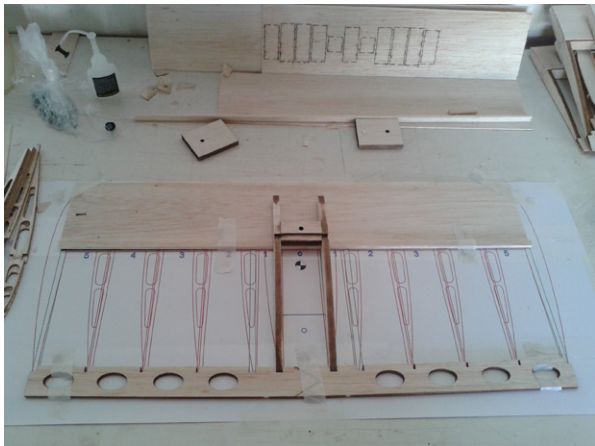
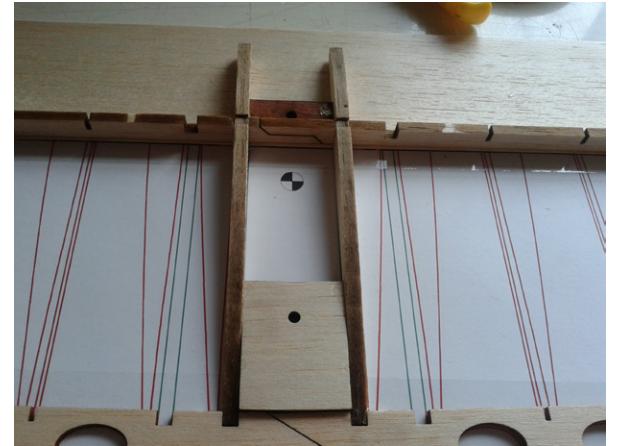
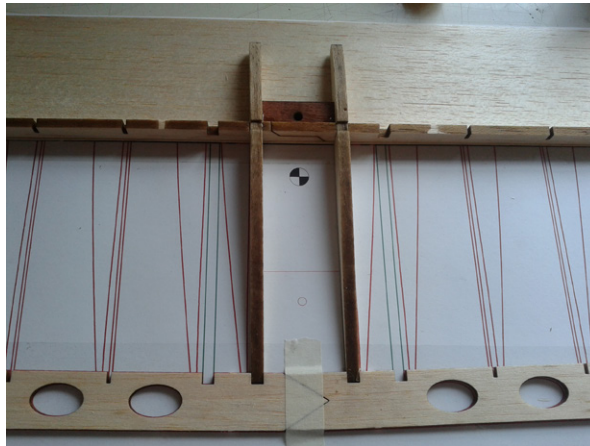
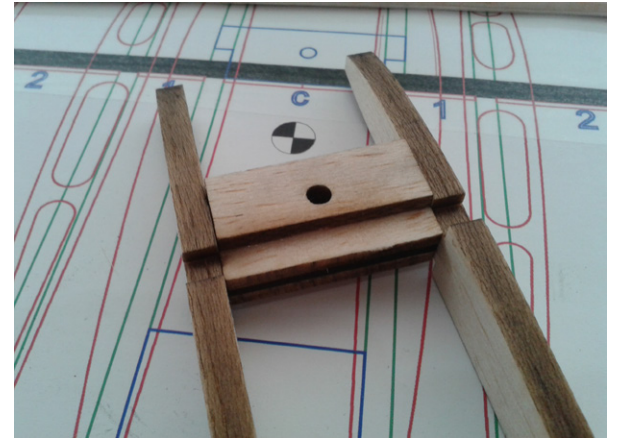
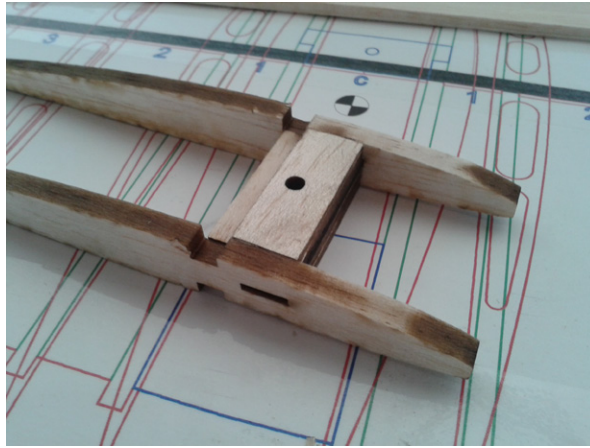




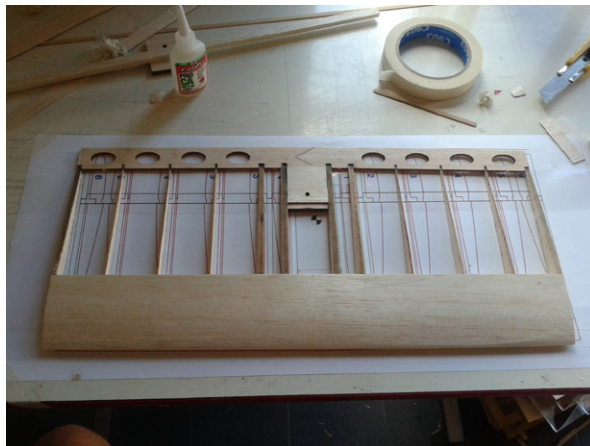
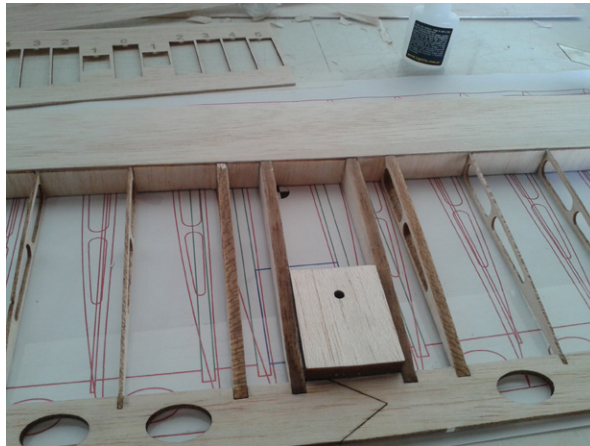
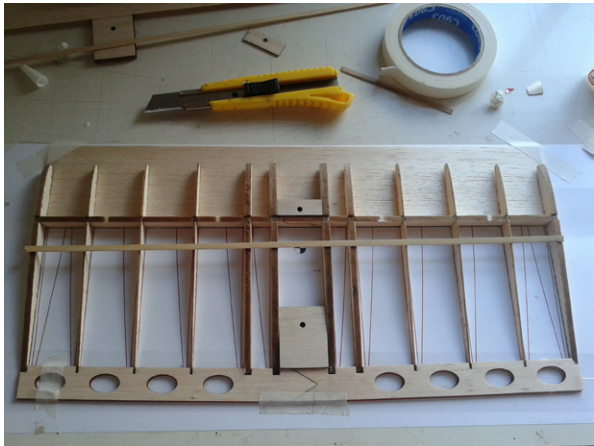
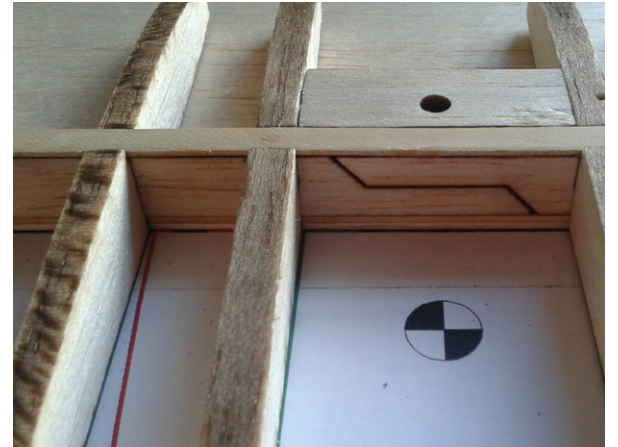
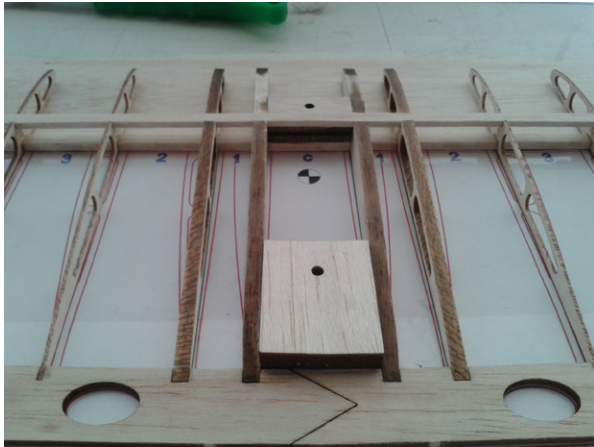




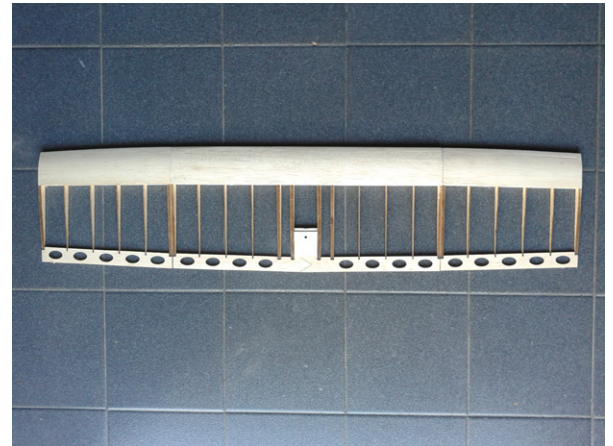
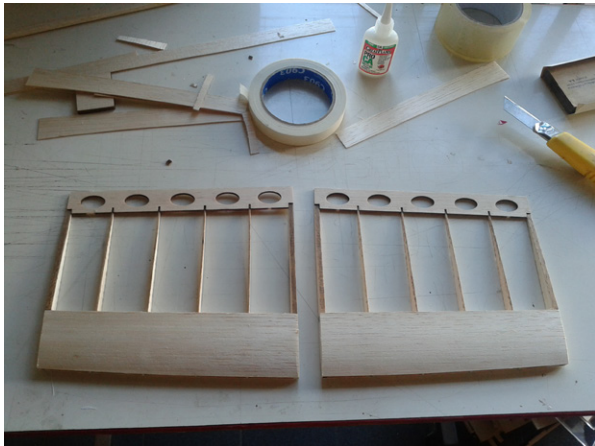
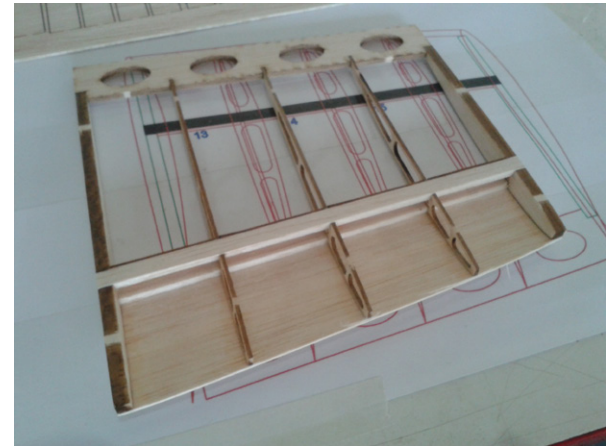
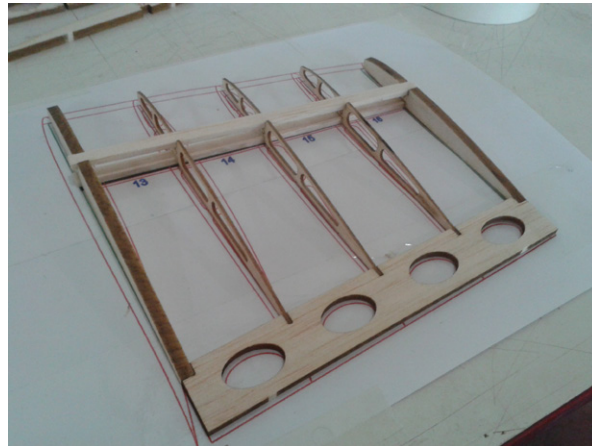
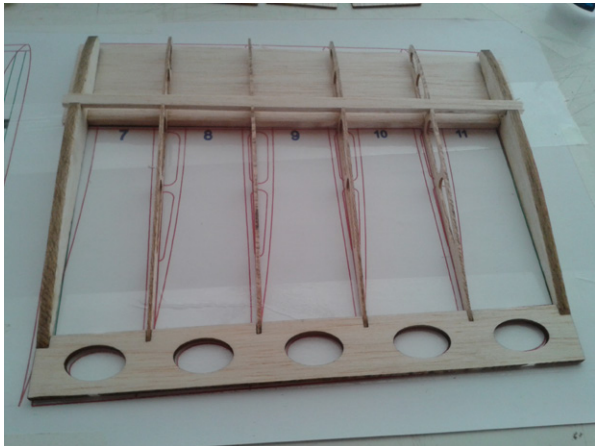
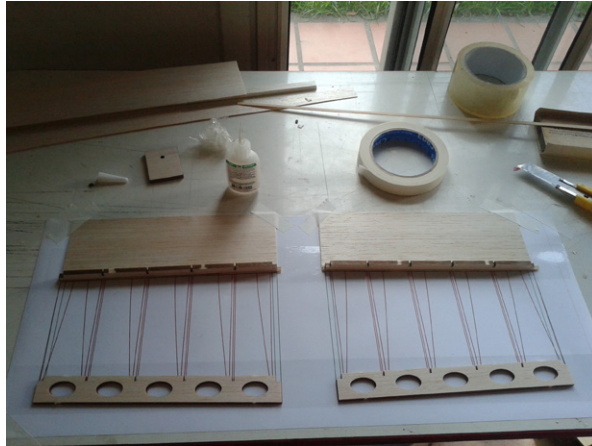
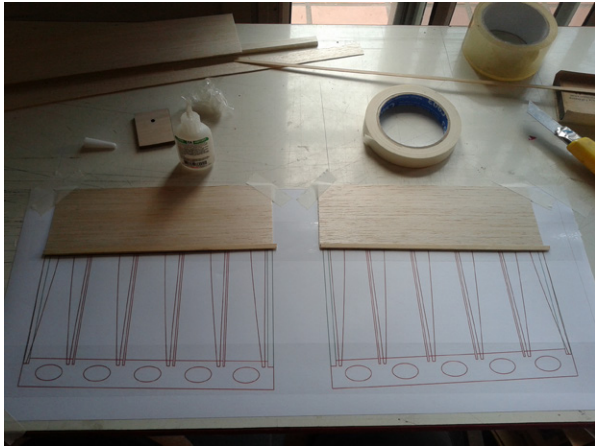




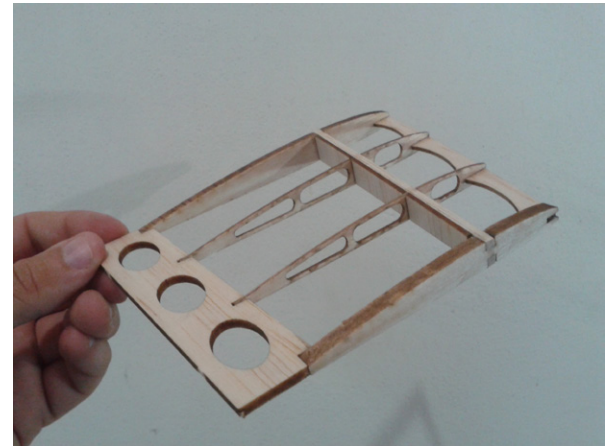
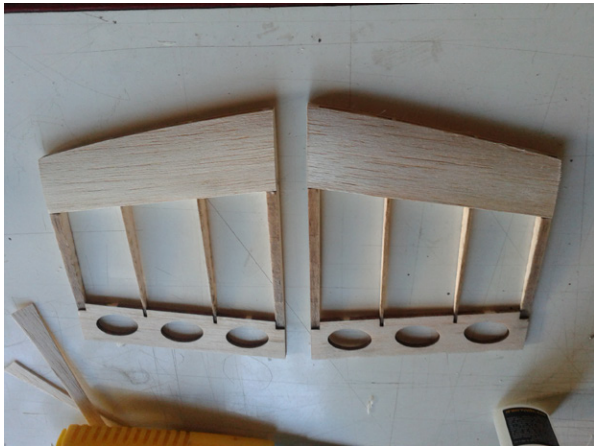
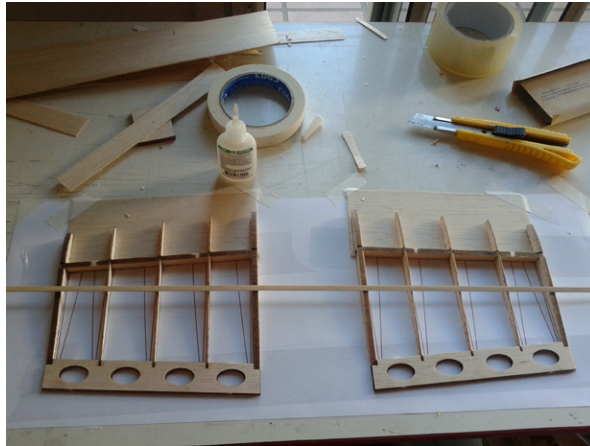
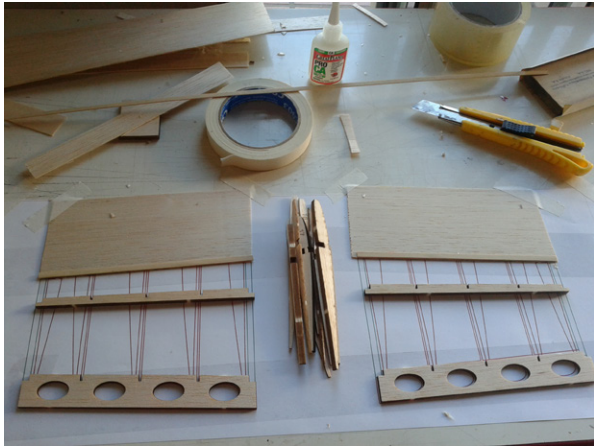




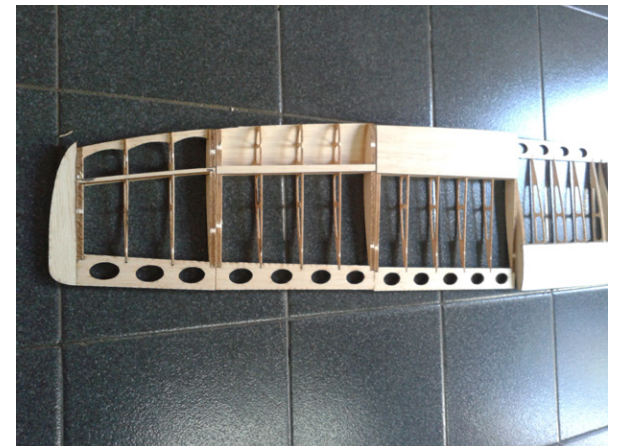
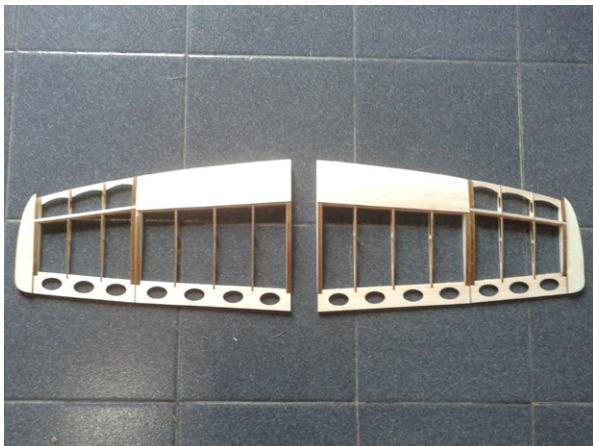
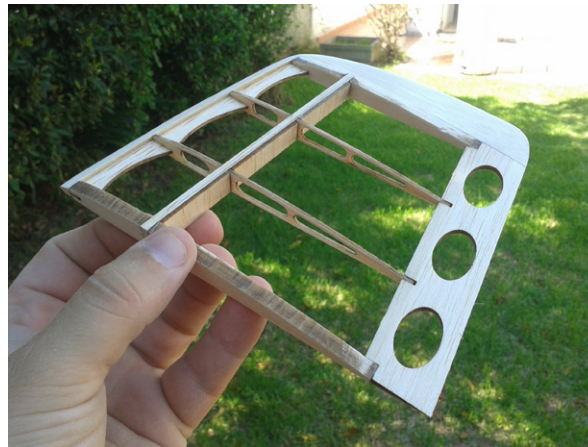
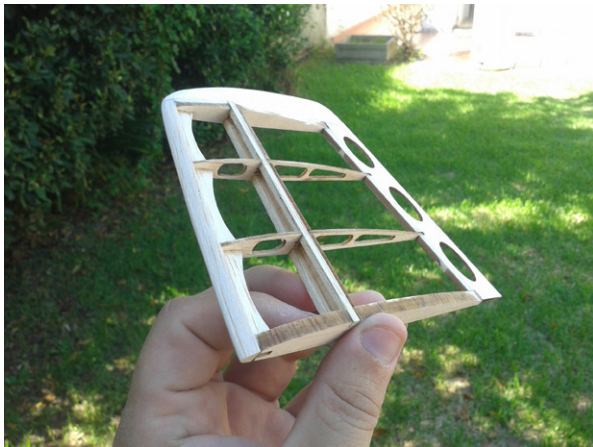
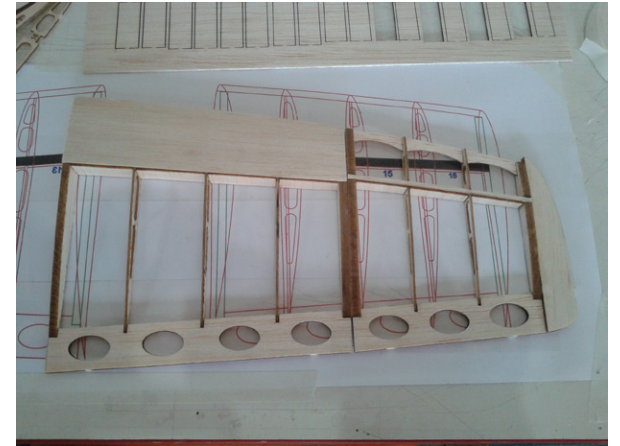
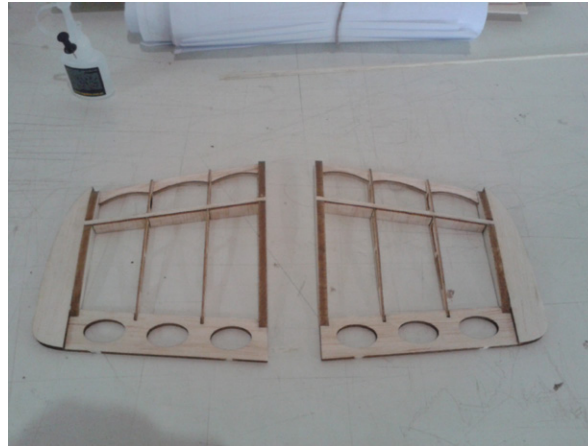
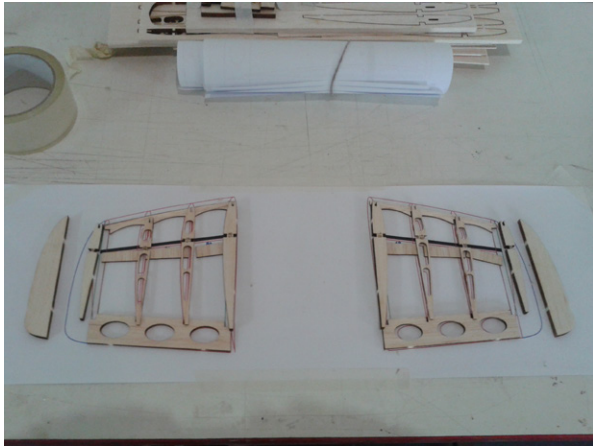




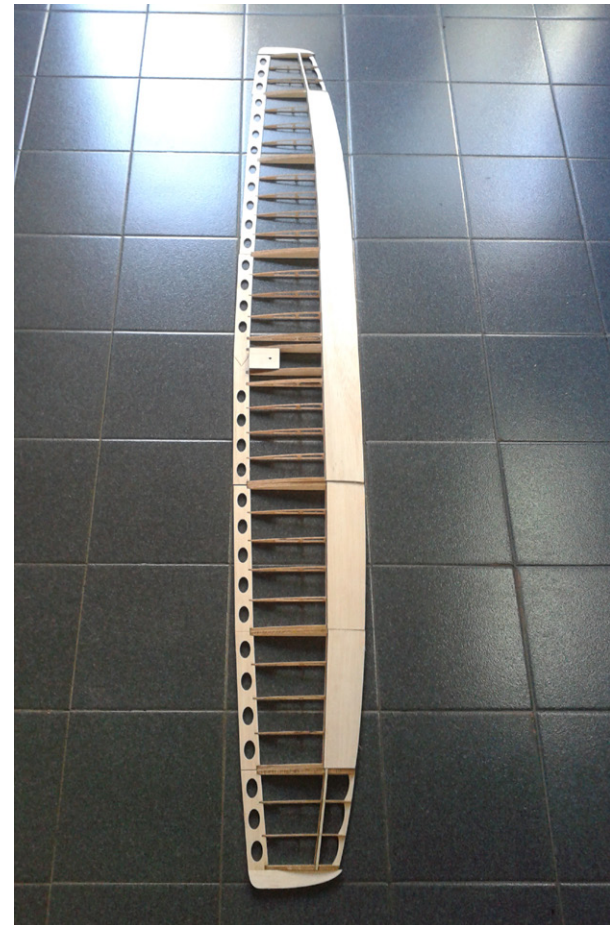
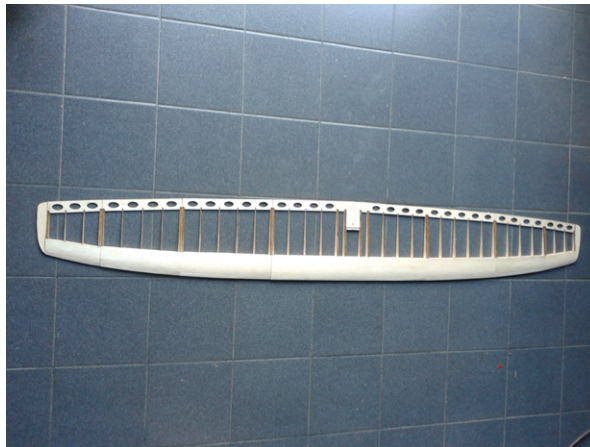
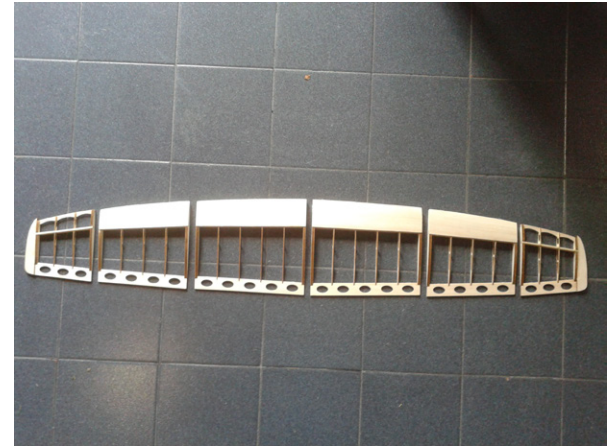
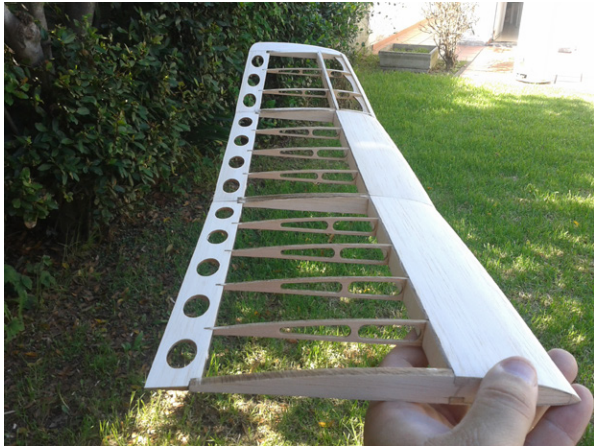




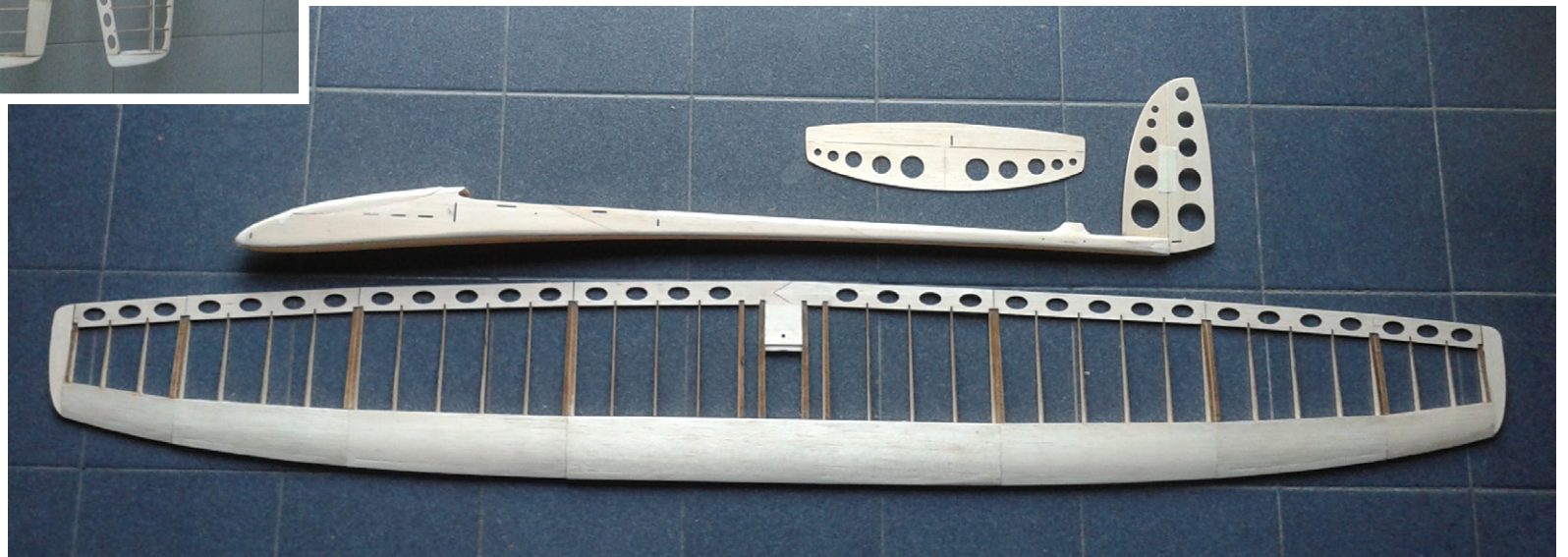
























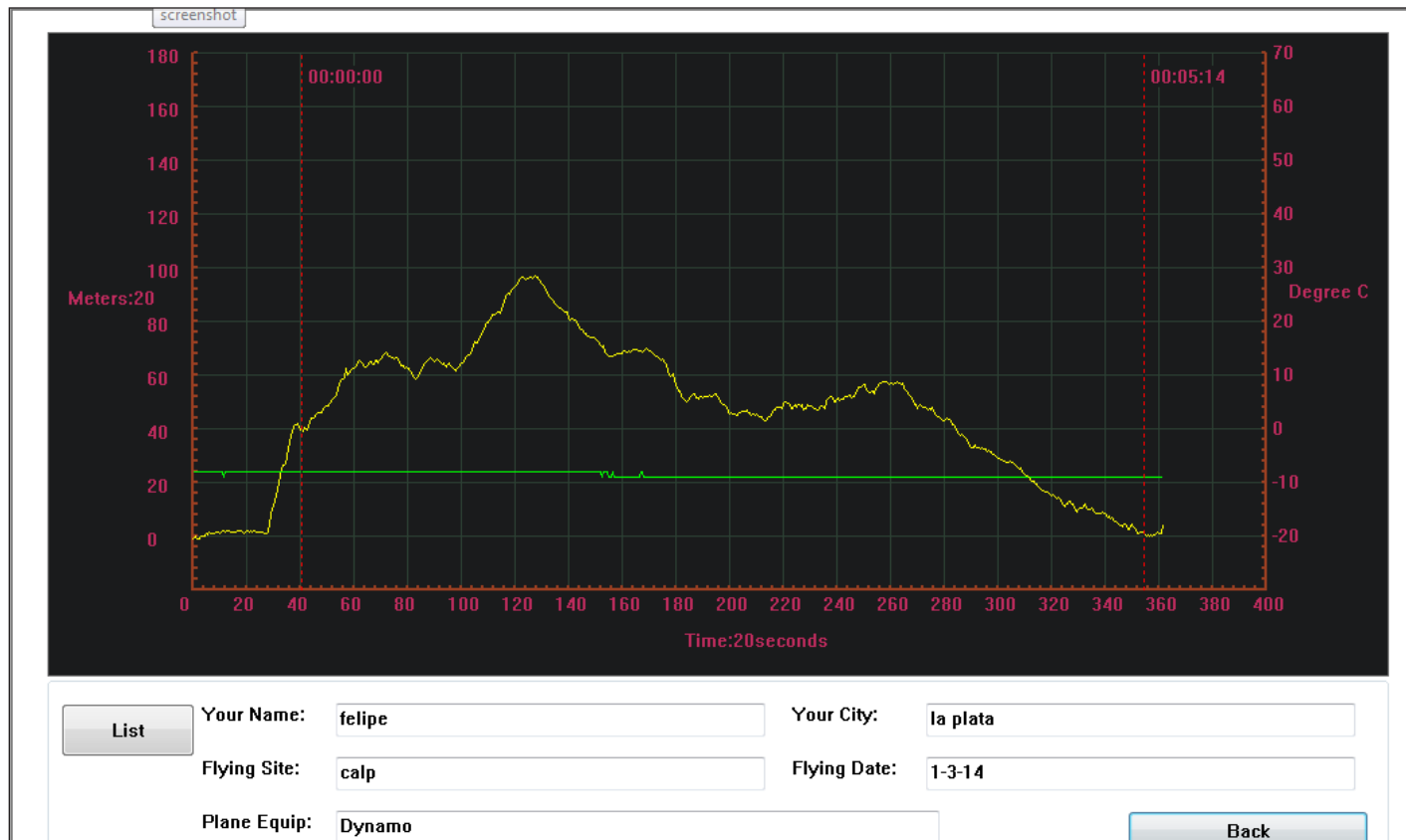
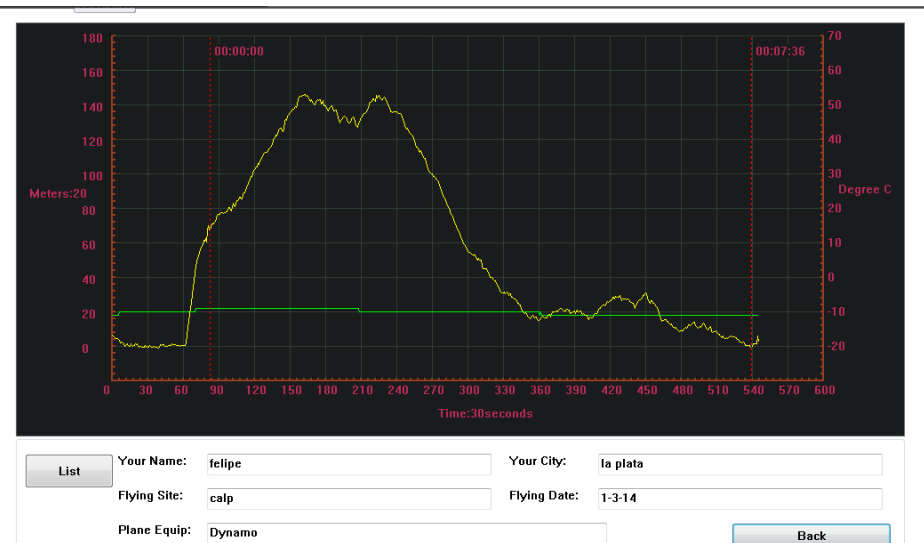
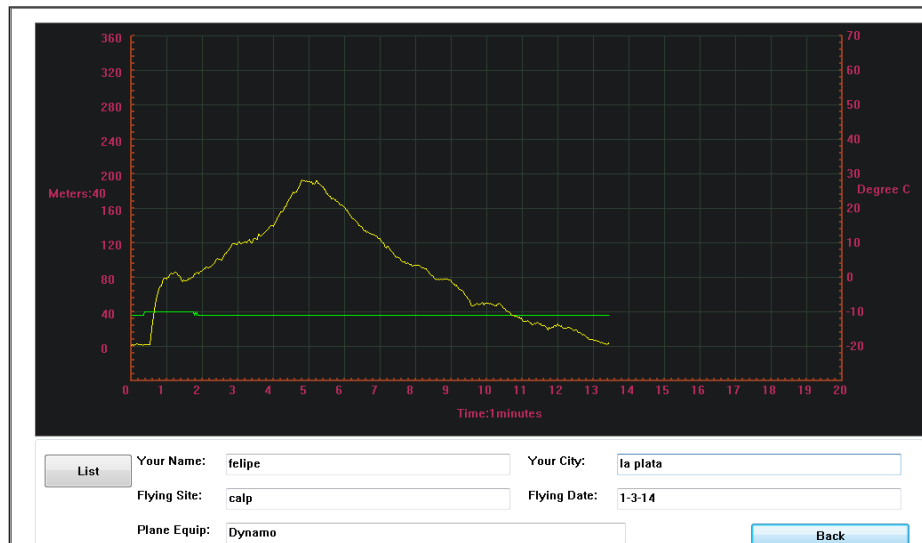














A photograph of three gliders flying in a cloudy sky. The gliders are white with dark markings. The sky is filled with soft, grey clouds, with some patches of blue visible. The gliders are positioned at different heights and angles, suggesting they are in various stages of flight.

# CEWAMS

Chris Erikson's Wild Arsed Mountain Slopers  
**Table Mountain, early July 2014**

Philip Randolph, [amphioxus.philip@gmail.com](mailto:amphioxus.philip@gmail.com)



*Near a near loss of Liberty in Washington State*

*or*

*The inverse relationship between aesthetically pleasing  
and aesthetically pleasing*

Photos by Erik Utter, Chris Erikson, Mike Daily, Steve Allmaras, and Philip Randolph. Archive photo by Sanders Chai

Do you believe Liberty is important? I do, though I have also looked down upon Liberty, and recently. But I need to tell you about it, for such a close call should not be forgotten. Two years ago all Liberty was nearly lost, here in Washington State. It was so close that for a time there actually were no persons residing in Liberty here in the upper left-hand corner. Liberty was evacuated in September of 2012. It didn't actually burn. You thought I was sneaking a political diatribe into *RCSD*? Pah! I would only pretend to stoop so low. But a heck of a lot up here did burn. Including half of our favorite, cliff-top campsite, somehow partially spared in one of Washington's hugest conflagrations.

It's Friday afternoon. Steve Allmaras is driving. We pass a sign:

"CAUTION. Entering the 2012 Table Mountain Fire Area.  
Weakened trees may fall at any time. Travel at your own risk.  
U.S. Forest Service."

It will get worse in five or ten years. As roots rot, trees will fall. We're headed up 6000' Table Mountain. The Forest Service road is paved to 5400'.

For miles we drive through alpine fir, slow growing things often hundreds of years old, now dead, clean yellow wood showing through where blackened bark has fallen away. Occasional breaks of green survivors.



Photo by Erik Utter

When we get to our campsite, we'll discover that the fire was so hot it vaporized the duff right down to mineral soil. Much of this area will be slow coming back, at least to trees. But not to – there are more wildflowers than I have ever seen, anywhere. Evidently the little guys thrive on a bit of destruction.

Ah, yes, our campsite does look down on Liberty. Or would, had it eyes. It's a west facing point of basalt cliff. Terrible place to fly toys one values. Great lift. Spectacular scenery – Mounts Stewart, Rainier, and Adams, in our Cascade coastal range.

CEWAMS founder Chris Erickson (CE's Wild Arsed Mountain Slopers, what?) arrived Thursday night driving Melissa in the famed 1970 Datsun 510 Deathmobile. Steve and I, and then Erik Utter with twelve-year-old Riley and four-year-old Cole arrived Friday, July 4. Saturday Mike Daily arrived.





*Wild flowers erupt next to vaporized duff.*

The fire stopped about halfway through this cliff campsite. We walked out to the 40' wide strip of softball sized rocks and wildflowers we call a landing zone. Where once low fir branches softly caught many a plane that missed the rocky LZ there is nothing. Well, a maze of blackened sticks that tripped me when I was retrieving a plane, so that I fell right on my transmitter, oddly undamaged.



*Burned out tree.*

Friday afternoon, we all toss toys off the cliffs. And within five minutes, Whack! My Sonic (4' chevron) and Steve's Bowman Hobbies Super Scooter (standard planform) collide. We both go down.

But the Scooter is blown back into those big dead trees, all of their smaller branches ripped off by the hurricane winds of the firestorm.





The point by which we camp. Liberty is a tiny green space a little over halfway down the right side of the photo.



Erik with 48" Bee, Cole (4) & Riley (12). Mt. Stewart.

Steve says, "It caught a wingtip, whipped around, the nose hit something and broke clean off." Steve's nose has suffered a lot. I suggest that rather than gluing it all back together he secure it with pop beads, so at least it can be snapped back into place.

Steve won't let on that he is also suffering till early Sunday morning, when he'll explain that by Friday evening his gut was slightly queasy, perhaps food poisoning.

Saturday's quote (Chris to Melissa): "Watch Philip's plane. He likes to fly close to the ground. It gets interesting." That means the Sonic bit the ground a few too many times. The first time, well, Chris was trying to talk to me, which meant he'd walk just to my left, which was where I was flying, to my left, and he'd be watching his EZ glider, and about the time my Sonic was close to the cliff top the tip of his 72 MHz antenna appears about four-inches from my sunglasses. So I flinch, and Whap! Piles into rocks.

But the other times I piled in all by myself, like a big boy.

Now, one other guy with superb flying skill is Erik. Erik's Bee (Another 4' chevron) screams about four feet in front of us. He explains, "I like the challenge of control when close to the ground." Response: "Control yourself."

Other related quotes:

"Maybe we should accidentally step on all his planes."

"No, that's a waste of good planes. How





*Upper left: The fringe of our landing zone was once soft fir branches that wouldn't damage a foamy. Not now.*

*Above: Contrast... In 2011 our rocky LZ was bounded by soft fir branches. Archive photo by Sanders Chai.*

*Left: Flowers. Photo by Erik Utter.*





*Above: Looking from the south at the cliffs we fly.*

*Left: Looking south at Lion Rock.*







*Mike launching an electric EZ Glider. Note the rocky landing zone. Photo by Erik Utter.*



*Steve, Melissa, Chris, Mike, Philip. Photo by Erik Utter.*

about if we just beat him up?"

"Maybe we should rip his antenna off."

"Woops, we broke your module."

Segway quote: "Remember the time at Wahatis when Chris was way down the slope and we were all dive bombing him?" Chris: "When you guys started to get too close was when I started throwing rocks. Nearly got one of your planes."

Non-segway quote -- Philip: "Back in the 1890s Frederick William Lanchester patented winglets." Chris: "Did he have span limitations?" "Philip: No, in his later years he got somewhat portly." Standard cliff talk.

The wind is pretty good, maybe 15 or 20 straight in, with a heck of a rotor blowing against our backsides, which makes it hard to land. I knock out a servo on the Sonic. Steve has glitch problems, probably a broken antenna,

with his Boomerang (48" chevron). He walks a third of a mile along the cliff tops. Chris, Mike, and I get EZ Gliders in the air. We attempt formations and simultaneous loops. No collisions. Then goofy landings. Repairs. And off to the usual steaks.

Now there is this about the RC glider sport, at least in Washington's Cascades, and especially when our Fearless Leader has a penchant for cliffs and rock piles. Aesthetics are in competition





*Above: Erik and Riley (eclipsed by Erik) holding Philip's feet while he retrieves Erik's Bee. Photo by Chris Erikson.*

*Right upper: Retrieval. Photo by Mike Daily.*

*Right lower: Halfway up. Photo by Steve Allmaras.*

with aesthetics. Usually. Most places here, where the scenery is bleeding gorgeous one doesn't want to fly a gorgeous toy plane, and especially not one that doesn't bounce well. So we mostly fly EPP or Elapor, resilient foam planes and flying wings, often covered with packing tape. But we go to incredibly beautiful places to fly our trashy planes in air that is usually more variegated but less subtle than one finds in flat-field flying. And then evening comes.

Someone has built a three-sided fire pit about five feet across. We build a huge fire in it. I'm first down at about 11:00. Hours later a few of them are still boisterous. Which all means I'm







*Your author in a typically egotistical selfie.*



*Cole handles the shovel while Chris plants a seedling alpine fir.*

first up Sunday morning. I putter around, eat a couple onion bagels, and take my Electric EZ glider out to the cliffs. Lift is light and very smooth. I fly for an hour-and-a-half. Every once in a while there is a sink-thermal that I have to power out of. But the sky is blue, the scenery great. I play circles in the bowl to the left.

After the rest are up and breakfasted, a few go out to fly. Erik chucks his Bee off. Promptly hits sink. Almost gets it back. It's actually steeper than it looks like in the picture, with Erik and Riley holding my heels while I hang down the cliff top to grab it, laughing the whole time. Steve launches a Red Herring (34" EPP delta). It zips around like they do,

exciting little planes. I actually do a rare good landing with my EZ. A bit later Steve points down the cliffs and talus. Maybe a quarter-mile down. He says, "I hit a sink cycle, and attempted to find some lift." He's looking a little green, so I say, "I'll get my boots." I actually enjoy scrambling on talus slopes. Makes me puff. Probably good for me.





Chris Erikson



*Afternoon Sunday we all head out.*

Quotes:

“Between us we must have at least three sets of walkie-talkies.  
Do we bring ‘em? No.”

“Nor helmets.”

“Nor ropes.”

Oh well.

And then our most responsible four-year-old (nearly five)  
official CEWAMS member and acting head of the Ecological  
Committee, Cole, assists natural restoration.

Afternoon Sunday we all head out. Good times.







# Nutt's Z-Ninety

*David Nutt's 90° alignment fixture*

David Nutt, [dnutt2300@aol.com](mailto:dnutt2300@aol.com)







Saturday I broke the upper half of the vertical stab on my Miles 2m. (See the top two photos on the title page opposite.) But I knew it would be an easy fix using my Nutt Z-90 tool, a device that works pretty good for me.

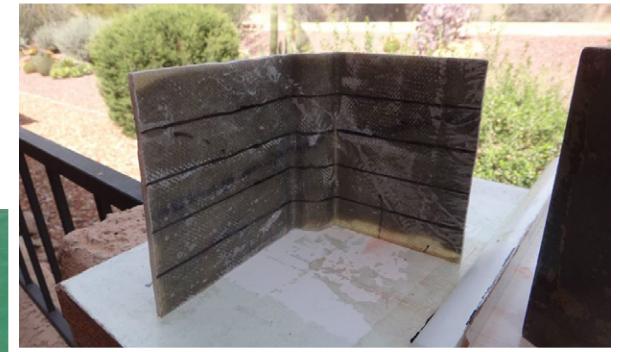
The idea came to me after I snapped the tail off my CR Fun 1 while landing on "A" mountain here in Tucson.

So with the use of my machinist end plate, a melamine board and a piece of quarter round moulding the fabrication of the 90 began.

The idea of the moulding was to clear any tail re-enforcement, like the angle stock my Fun 1 has.

I wanted to make it a little flexible so it was laid up with just a polyester gel coat and four or five layers of glass.

I'm only sorry that I didn't come up with this idea years ago.





# TOM'S TIPS

## Three Quick Tips

Tom Broeski, T&G Innovations LLC, [tom@adesigner.com](mailto:tom@adesigner.com)

### 1. Removing a servo with a metal jacket

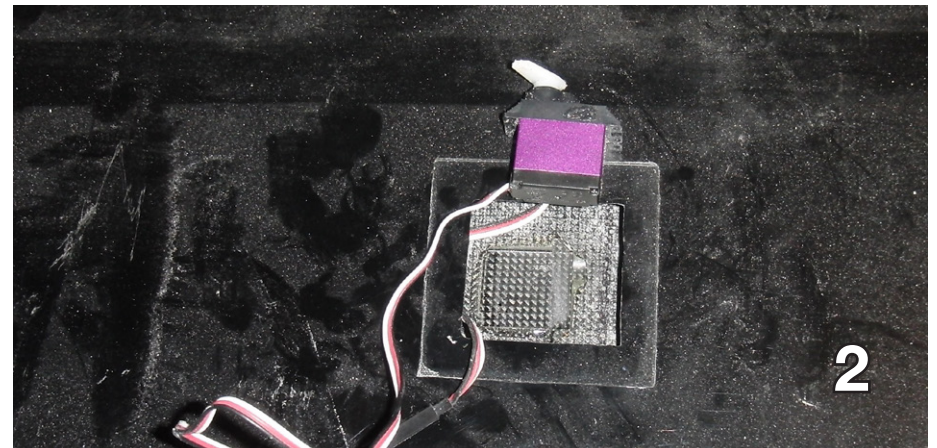
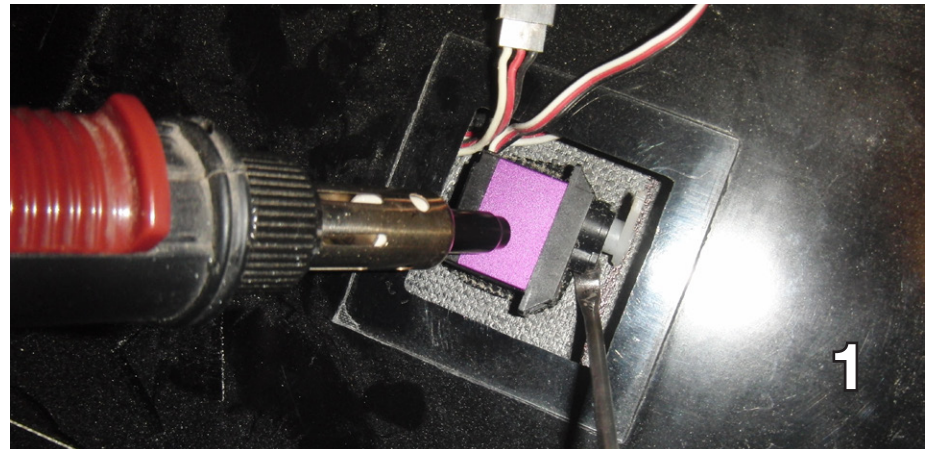
(a) I had a couple of servos with metal jackets epoxied into a used wing I bought. I took out both.

I took a tiny solder torch and heated just the metal jacket. (See Photo 1.)

The servos popped right out. (See Photo 2) The dust is from grinding off the epoxy that remained.

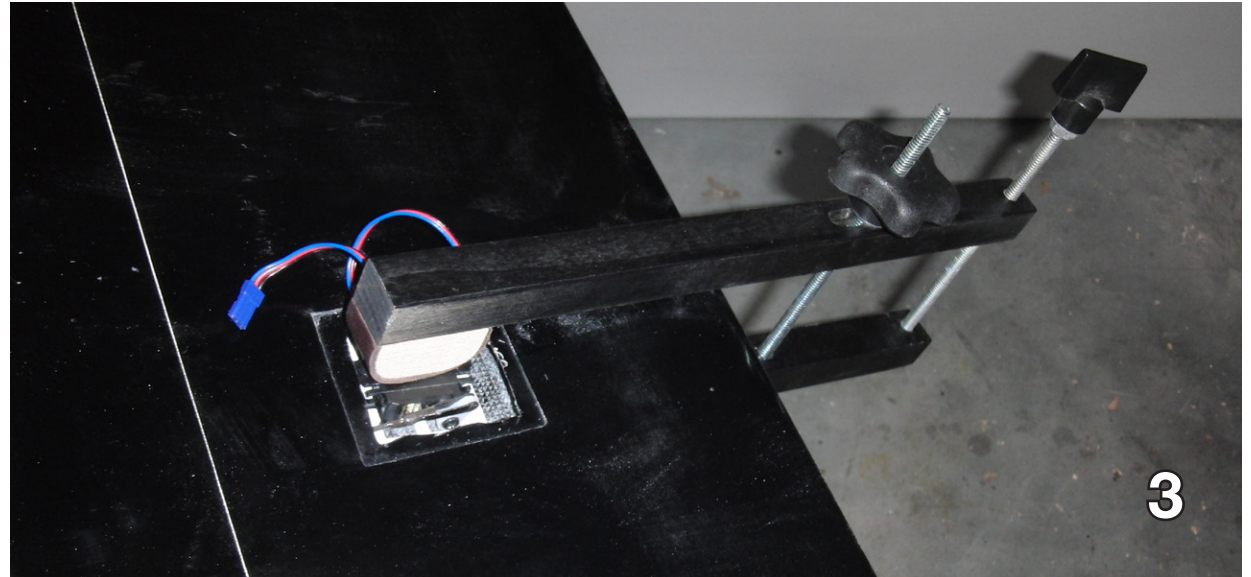
I'm not sure what damage, if any, is caused by using this technique, but it went very quickly. One servo was already bad, so it didn't matter; the other is working fine, but I would never use it again anyway.

(b) I use Goop and/or servo frames for all of my servo installations. I hate when people epoxy servos in. Inevitably, they crap out and have to be replaced. Before I started making my own servo frames, I used Goop and it works great. Goop is easy to dissolve with Toluene - you can use a string dipped in Toluene to cut it right off.





(c) Installing or re-installing a servo is very easy with the use of a deep-throated clamp as described in "Tom's Tips" in *RCSD* March 2014 pp. 22 - 26. See Photo 3.



## 2. A soft spot for my planes.

About 15 years ago, I ran across some hospital mattresses at a local surplus depot. I couldn't have designed a better item for preventing bench rash.

Over the years I've kept an eye out and occasionally pick some up.

The ones I've found come in 33" to 36" x 72" and 2" to 4" thick.

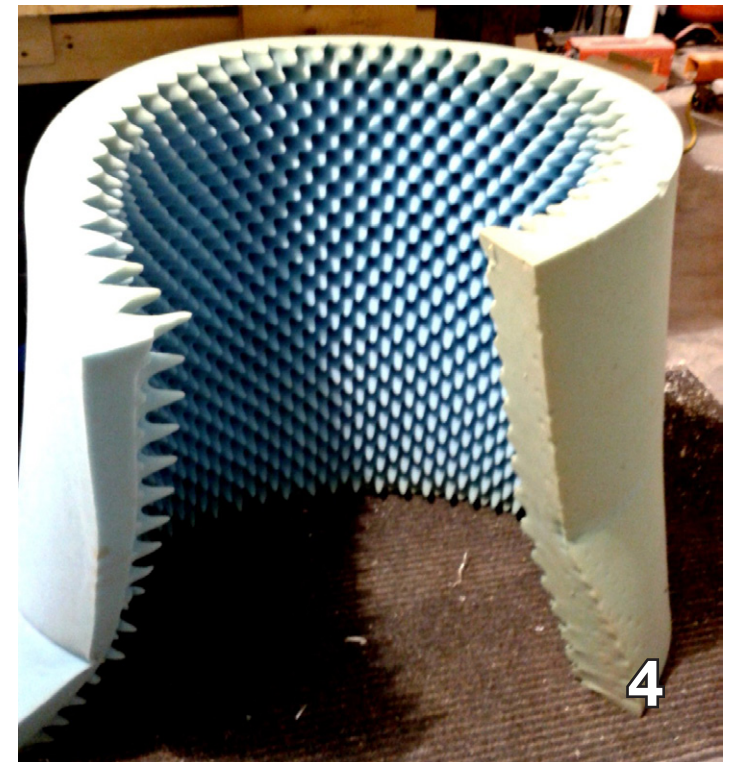
The dang things are convoluted.... that's what they're called - Convoluted Foam Pads.

Photo 4 shows a 4" thick one, but I use the 2" thick ones the most.

As you can see from Photo 5 on the following page, no more bench/hanger rash!

I cut one in half to use on a regular basis, and use the larger one when I am working on something with lots of parts I want to spread out.

And..... I never have to worry about a small part or screw ending up on the shop floor or getting lost.





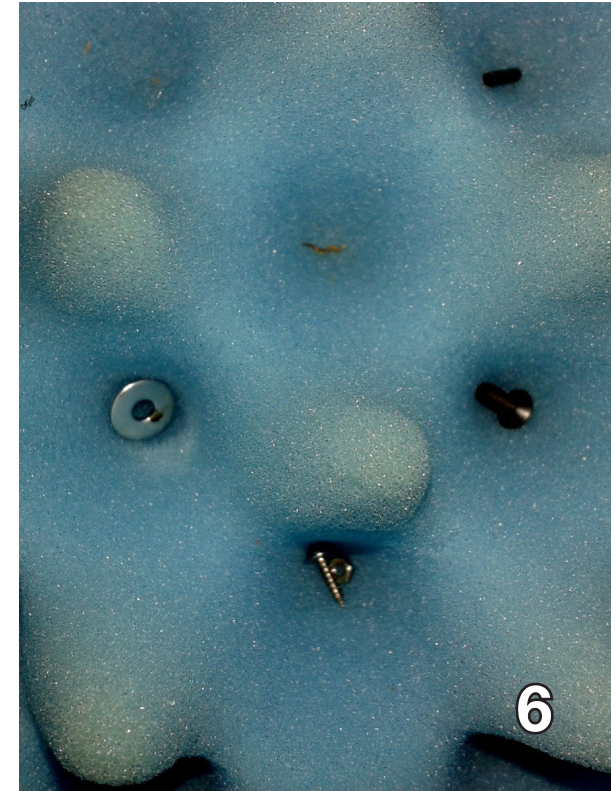
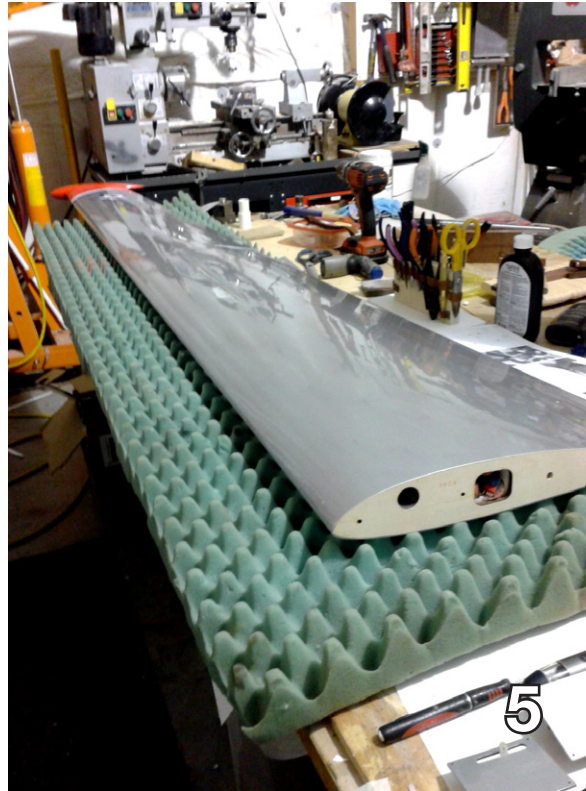
They just fall right into the dimples. (See Photo 6.) And that includes those teeny tiny itsy bitsy control arm screws from micro servos.

I paid \$10 each for the those I got, but they are worth it even if you have to get one from a hospital supply. Search around. Prices range from \$18 to \$80.

Try VAL-MED <<http://healthproductsforyou.com/p-2573-val-med-convoluted-foam-hospital-bed-pad.html>>

and Amazon <[http://www.amazon.com/s/ref=nb\\_sb\\_noss?url=search-alias%3Daps&field-keywords=Convoluted+Foam+Mattress+Pad&rh=i%3Aaps%2Ck%3AConvoluted+Foam+Mattress+Pads](http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=Convoluted+Foam+Mattress+Pad&rh=i%3Aaps%2Ck%3AConvoluted+Foam+Mattress+Pads)>.

Both of those sources have a wide variety from which to choose.



### 3. No more confusion

Tired of flipping my gear wrench around to find on or off..... I simply painted the "on" side.

No more confusion!





*The first International Vintage Glider Meeting, in commemoration of Vittorio Bonomi, famous sailplane pioneer who contributed to the development of gliding in Italy in the 1930ies, took place at the Giancarlo Maestri Airport of Alzate Brianza (Como), organized by the Aeroclub Volovelistico Lariano (AVL), from 16th to 24th May 2014.*

Vincenzo Pedrielli, vincenzopedrielli@gmail.com  
Photos by Vincenzo Pedrielli and Stefano Corno

Ten vintage gliders, half of them coming from the neighboring Switzerland, took part in the event. The other half were German and Italian.

On Saturday 17th, blessed by a gorgeous meteorology, the flying activity started, not before having given all pilots a familiarization flight with an AVL instructor, as the landing approach to the airfield is rather peculiar, due to the difficult orography.

On Sunday 18th, the airfield was opened to the public and a large crowd was poured in to see the vintage sailplanes take off and to take photography. Before the sailplanes were towed by a Stinson L5, some RC models of pretty large scale made demonstration flights. When in the air, nobody could believe that they were just models.

Among them, I like to mention the *Allievo Cantù*, which is also recalled in the promotional poster of the event and which was built by "Aeronatica Lombarda," led by Vittorio Bonomi, in over a hundred units and adopted by most Italian gliding clubs at that time. This model was built in 1:5 scale by my friend Carlo Zorzoli, a very experienced pilot and a great model builder.



**1<sup>st</sup> International  
Vintage Glider Meeting  
Vittorio Bonomi**

**1<sup>o</sup> Raduno  
Internazionale  
di Alianti  
d'Epoca**

*Allievo Cantù*

Con il patrocinio del  
Comune di Alzate Brianza

**AVL**  
Aeroclub Volovelistico Lariano

**From 16<sup>th</sup> to 24<sup>th</sup> May 2014  
Dal 16 al 24 Maggio 2014**

**Aeroclub Volovelistico Lariano  
Aeroporto Giancarlo Maestri  
Alzate Brianza (Como) Italy  
info: [www.avl.it](http://www.avl.it)**





*Allievo Cantù* in 1:5 scale by Carlo Zorzoli.

Much admired for the accuracy of the details, was the *Kranich IIB* of Carlo Cobianchi, the owner of “MOVVO,” one of the best model shop around Milano. Also belonging to him a nice scale model of the *Sperber Junior*, designed in 1936 by Hans Jakobs just for Hanna Reitsch, no one else could enter in the cockpit and fly that sailplane.

Another nice looking scale model was the D28b *Windspiel* of Helmut Denno, built in 1933 by the Akaflig Darmstadt students. A very special sailplane of 12 meter wingspan, very light, only 55kg, less than the weight of the pilot.

Gianluca Bartolini was present on the airfield with his 1/4 scale Schweizer SGS 1-26D. The 1-26 series started in

1956 as kits, but later, more and more, the Schweizers sold the sailplanes already assembled. The “D” version came along with dive brakes instead of spoilers, metal skinning on the nose of the fuselage, improved canopy allowing a better visibility and more room in the cockpit. To be noticed how Gianluca nicely reproduced the metal skinning of the SGS 1-16D with its rivets.



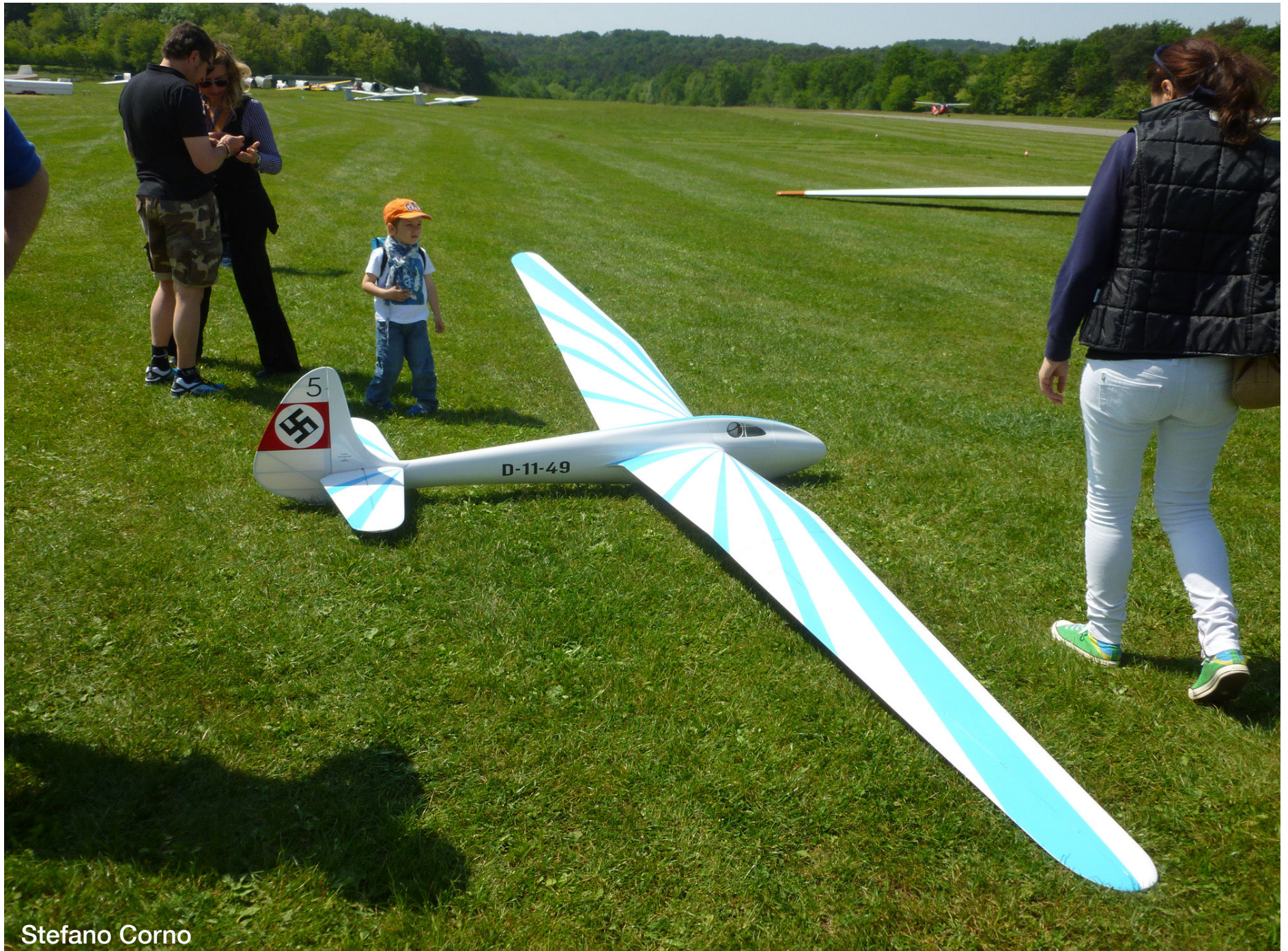


Carlo Cobiانchi's *Kranich IIB*



Stefano Corno





Stefano Corno





Above: Carlo Cobianchi's *Kranich IIB* in the foreground, the D28b *Windspiel* of Helmut Denno directly behind.

Opposite page: Carlo Cobianchi's *Sperber Junior*





The 1/4 scale Schweizer SGS 1-26D built by Gianluca Bartolini.





Stefano Corno

Gianluca Bartolini's LF107 *Lunak*.



Stefano Corno





Stefano Corno



Stefano Corno

Gianluca Bartolini attended at the Alzate event with another splendid historical model. The LF107 *Lunak*, the Czech aerobatic glider designed by Rudy Letov in 1949 and further developed by a group of sailplane pilots and aeronautical engineers. The original glider was donated to the Museum of Flight in Seattle Washington USA by Mira Slovak. The model by Gianluca is a real masterpiece, finely decorated as the original, and has proven to be an excellent aerobatic glider in the Alzate sky.





The LF107 *Lunak* on tow.



Last, but not least, the Schleicher Ka8 of Lorenzo Lorenzoni and Helmut Brenno. There are many full size Ka8 still flying in Europe. Also this model, faithfully reproduced in a scale of 1:4, gave evidence of good soaring.



Stefano Corno



Eventually, on the day open to the public, the RC vintage model builders attracted the attention of a large public, added to those of the full size vintage gliders, and showed their great satisfaction for the successful event.



PS: To entertain us in the evenings of the meeting and before dinner, Frederick Fischer, the Swiss composer musician, flew his large scale radio controlled Eagle, supplied by an American manufacture and driven by a small electric motor. Very impressive and realistic flight!



