

Radi ■ C ■ ntr ■ lled Soaring Digest

June 2013

Vol. 30, No. 6



June 2013

Vol. 30, No. 6



Front cover: A picture from the first fly-off at the Holland Glide F3J Eurotour 2009. At the front is Robert Braune's Satori. Photo by Magnus Hedlund
Nikon D300, ISO 400, 1/500 sec., f11, 105mm

- 3** **RC Soaring Digest Editorial**
- 4** **Adventures with Nonplanar Wings**
Chuck Anderson discovers a 1962 NASA paper and explores elliptical and circular dihedral as a method of reducing induced drag.
- 9** **Hallstahammar Aerotow**
A photo album by Magnus Hedlund.
- 17** **Last RCVN Winter League 2012/13**
A photo album by Martin Pilný.
- 31** **A pen and ink drawing by Julian Whittaker**
Courtesy of *Aspectivity*, April 1982, Victorian Association of Radio Model Soaring (VARMS), Australia.
- 32** **New Zealand SoarChamps**
Scott Chisholm, Allan Knox and Dave Griffin report on the various aspects of this contest - F3J, Premier Duration, ALES 200, F3K, the Radian contest, and the New Zealand F3J WC Team Selection.

- New FAI RC Soaring Records** **43**
 - Falcon RC Press Release** **44**
Grand opening and available offerings from Joe Falconer.
 - Upchucks - or - a failed attempt at verbal remote control** **48**
A look back at a HLG contest experience, told in a way only Philip Randolph can accomplish.
 - Raptor and HLGs** **50**
Photo sequence by Adam "Red" Weston, taken at the April 2013 SASS HLG contest.
 - Mike Furcolow, Big Mesa & Smith Mountain** **70**
The Western Colorado Slope Challenge participants honor the individual responsible for their flying sites. Documented by Greg Hines.
-

Back cover: Ren DiLeo's quarter scale Schweizer 1-26 over Torrey Pines.
Olympus E-300, ISO 100, 1/800 sec., f5.6, 150mm

R/C Soaring Digest

June 2013

Volume 30 Number 6

Managing Editors, Publishers

B² Kuhlman

Contact

rcsdigest@centurytel.net

<http://www.rcsoaringdigest.com>

Yahoo! group: RCSoaringDigest

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

R/C Soaring Digest (RCSD) is a reader-written monthly publication for the R/C sailplane enthusiast and has been published since January 1984. It is dedicated to sharing technical and educational information. All material contributed must be original and not infringe upon the copyrights of others. It is the policy of *RCSD* to provide accurate information. Please let us know of any error that significantly affects the meaning of a story. Because we encourage new ideas, the content of each article is the opinion of the author and may not necessarily reflect those of *RCSD*. We encourage anyone who wishes to obtain additional information to contact the author.

Copyright © 2013 *R/C Soaring Digest*

Published by B2Streamlines <<http://www.b2streamlines.com>>

P.O. Box 975, Olalla WA 98359

All rights reserved

RC Soaring Digest is published using Adobe InDesign CS6

In the Air

What with event coverage, photo albums, and the usual supporting images for specific articles, this issue seems to be filled with photos. Advances in digital imaging and manipulation software and the abilities of photographers to use those resources has meant tremendous strides in the quality of what we are able to present in *RCSD*. We hope you enjoy what you see in this issue as much as we do our being able to present it to you in the best way possible.

Yes, it's true, *RC Soaring Digest* is now on FaceBook!



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

The *RCSD* FaceBook presence was initiated as a means by which readers could get more of an "inside look" at what goes on behind the scenes.

It's not often that we come across an item which involves a comprehensive collection of RC soaring concepts and emotions, so we can't pass up sharing the following. (Guess we missed it when it first appeared on RCGroups and a few other sites back in 2002.)

"Crinkle, crinkle, little spar,
strained beyond the yield-point far.
Up above the world so high,
bits and pieces in the sky..."

— Darrol Stinton, author of
The Design of the Aeroplane,
The Anatomy of the Aeroplane, and
Flying Qualities and Flight Testing of the Aeroplane

Time to build another sailplane!

Adventures with *Nonplanar Wings*

Chuck Anderson, chucka371@yahoo.com

While working on a V/STOL aircraft study back in 1968, I ran across a NASA report by Clarence D Cone Jr; The Theory of Induced Lift and Minimum Induced Drag of Nonplanar Lifting Systems (NASA TR R-139). This started me searching for other reports on nonplanar wings.

These reports indicated that induced drag could be reduced by using elliptical or circular wing tip dihedral instead of straight wings. Whitcomb has said that his winglet studies were inspired by Cone's work on nonplanar wings. Wings with winglets are also nonplanar and my experiments with winglets were reported in the July, 2012 of *RCSD*.

Polyhedral wings used by free flight fliers since the mid 30s are nonplanar and I used them on some of my early sailplanes. When I designed my 1973 sailplane, I considered using elliptical dihedral from Cone's report but didn't want to build the jig necessary for building a wing with elliptical dihedral. I was planning to use a polyhedral wing anyway so why not locate the panel breaks to approximate the elliptical dihedral recommended by Cone.

The 1973 model had much better handling qualities than my 1971 model with conventional polyhedral based on my free flight experience so I decided to use it on my 1974 Tern IV.



Figure 1. 1974 Tern IV

I finished the Tern IV (See Figure 1) only a few days before the 1974 SOAR Nats and hadn't finished trimming it out before flying in the SOAR Nats. It won Standard Class Precision Duration and placed 8th overall. Not bad for a new design less than a week after it's first flight.

Others flying at the 1974 SOAR Nats must have been reading Cone's reports because there were a few sailplanes using wings with circular tip dihedral described in one of Cone's reports. It must have not worked as well as expected because I never saw or read of any other sailplane with circular tip dihedral. Elliptical dihedral was another matter

In the February 1979 issue of *Model Builder*, Dave Thornberg gave a 3-view sketch of a sailplane called the Elliptical by Herb Semmelmyer. The Elliptical was a 117 inch span model with elliptical dihedral in the outer 18 inches. Herb built a plywood jig for the elliptical portion of the wing and three were built including one that was flown in the 1976 LSF Tournament. Herb described the model as a simplified prototype of a model with full elliptical dihedral that had not yet been built.

I found no other references to the Elliptical so apparently the elliptical dihedral didn't have enough advantages to make the extra construction effort worth while.

Did the linear approximation of elliptical dihedral reduce induced drag? I have no way of measuring any drag reduction. When I was experimenting with winglets, I was able to generate differences large enough to be measured by the equipment available to me at the time by using very low aspect ratio wings that generated strong tip vortices.

Mark Drela reported that they attempting to measure the performance of the Daedalus human-powered airplane by towing it to 100 ft and letting it glide back to the ground. They found that even though the conditions were absolutely dead still at dawn, they still got about 15% scatter in the L/D and sink rate. They had much better instrumentation than I had so

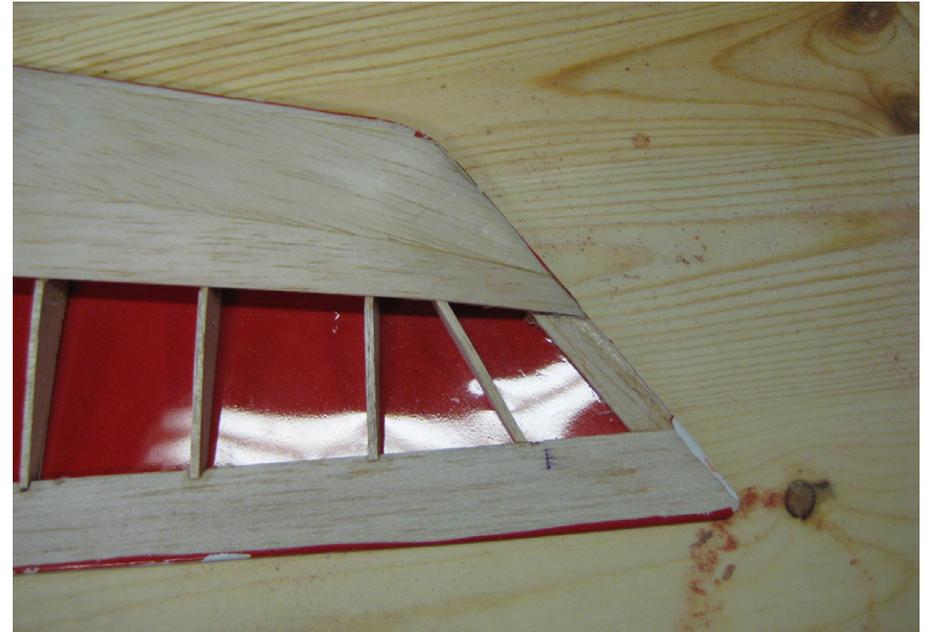


Figure 2. Raked wing tip

I didn't even attempt to check for any drag reduction from the Tern's polyhedral. I really liked the way the Tern IV flew so that was good enough for me.

When I was working on V/STOL projects, I spent a lot of time studying Horner's classic book *Fluid Dynamic Drag*. In that book, I found data from a WWII wind tunnel test on the drag of wing tips being used at that time.

He reports that all wing tips except one had higher drag than the wing without a wing tip. The only one that reduced the drag tapered the wing thickness to a knife edge over the last chord length of the span. Horner called this tip full sharp and I used this on my 1974 Tern IV.

Raked wing tips are reported to reduce drag. Raked wing tips are not really nonplanar but are frequently included in articles about nonplanar wings. Someone once said that the most



Figure 3. 2006 LilAn

important thing about wing tips is the distance between them and raked tips at least increases the distance.

The raked wing tip I use extends the trailing edge two rib spaces outboard of the tip rib and increases span by 8 inches. (See Figure 2.) A 3/8 inch wide strip of 3/32 inch hard balsa connects the leading edge at the end rib to the end of the extended trailing edge. The leading edge sheeting is clamped and glued to the 3/8 inch strip. A diagonal rib is added

between the tip rib and the end of the trailing edge. The tip is then sanded to as sharp an edge as possible.

I don't know if raked wing tips really reduce drag but the main reason I have used them on my RES sailplanes for the last 30 years is they are quick and easy to build as well as being very light.

(See Figure 3) This is the 2006 LilAn, my latest RES design using linear approximation of elliptical dihedral and raked wing tips. I still haven't found a

better way to get the performance and handling qualities I want.

Between 1994 and 1996, I built several full house sailplanes with nonplanar wings similar to the Tern IV. All had better handling characteristics than my conventional sailplanes with planar wings.

After 1996, I quit bagging my own wings and only used nonplanar wings on RES sailplanes with built up wings.



Figure 4. DG-1000. Photo by Paul Hailday



Figure 5. Discus-2a. Photo by Andy Holmes

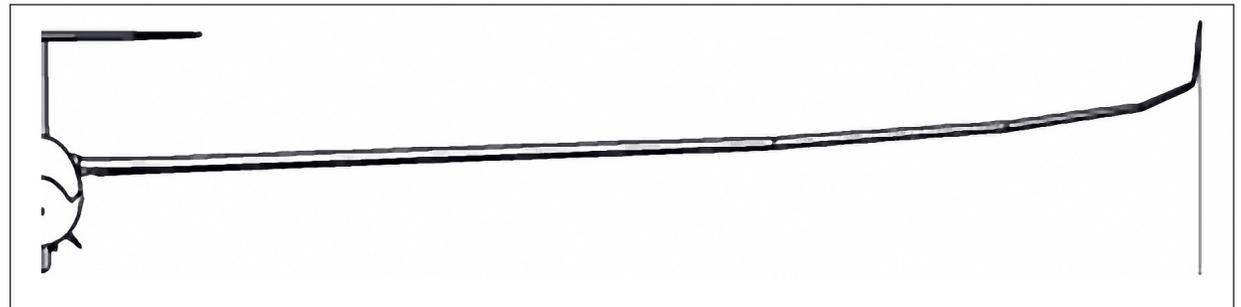
I did cut up the wing of a Grand Esteem to add tip dihedral and found that it was much easier to fly. Is the benefit of nonplanar wings for model sailplanes worth the effort? For me, the answer is yes. I consider stability and controllability to be at least as important as performance. Your needs may be different.

By 1990, full scale sailplanes were beginning to use winglets and this led to combining winglets with raked tips and tip dihedral.

A common application was tapering the transition area from the tip to the winglet and using the raked tip to locate

the winglet in the desired position. Later sailplanes add dihedral to the raked wing tip to further reduce induced drag. The DG-1000 (Figure 4) and Discus-2a (Figure 5) 15m sailplanes both used this.

The 2006 JS-1 Revelation sailplane goes a step further and has a four panel polyhedral wing with winglets giving even closer approximation to elliptical dihedral using flat wing panels.



JS1 Revelation dihedral



Figure 6. JS1 Revelation. Photo by Andy McKittrick

Wonder how this wing would work on a thermal soaring model? It certainly could be built without wing molds and provide straight trailing edges for flaps and ailerons. One step up from the LilAn wing.

The Wikipedia article on Wingtip Devices has a lot of information about nonplanar wings for full scale aircraft.

I enjoy experiments like this much more than just assembling a moldy or foamy.

When the 2006 version of the LilAn was not ready to fly at the Nats that year, I flew a Super Ava in RES. When the new LilAn flew just as well as the Ava, I sold the Ava and built another LilAn for backup.

Hobbies are supposed to be fun.

Designing, building, and flying my own designs is the most fun and that is what a hobby is supposed to be.





Hallstahammar Aerotow 2013-04-21

Hedlund, Magnus, via FaceBook

Photo Album

















LAST RCVN WINTER LEAGUE 2012/13

Poříčí, Czech Republic

Martin Pilný, pina1971@gmail.com



Photo Album



























FOR SALE



I would like to sell this model as well as the plans, patterns and instructions for kitting it and the manufacturing rights to it.

This airplane placed third several years ago at the Nats. It is an exact 1/5 scale of Raul Balckstein's real T31-B.

I also have all photo documentation of the full size airplane.

This airplane can be kitted using regular shop tools.

I will also instruct anyone on how to kit it.

Maybe you know someone who might be interested?

Buzz Waltz, bwaltz@dc.rr.com



Australian Victorian Association of Radio Model Soaring (VARMS) *Aspectivity* April 1982

REPORT

NEW ZEALAND SOAR CHAMPS 2013



Scott Chisholm, Allan Knox, Dave Griffin, david@griffin.org.nz

SoarChamps 2013 will be remembered for the great location, excellent turnout, weather (good and bad) and the Radian Flypast... more on that last one later!

Lake Station is an excellent location for soaring, lying as it does about as far from the sea as you can get in New Zealand (about 80 km) in a shallow valley, surrounded by lift producing features and beautiful scenery. A few km's further away are mountains reaching over 2200m, at the northern end of New Zealand's Southern Alps. What more could you want? Well there was a nice hotel nearby with a good range of accommodation options, craft beer on tap and great food!

Twenty-one fliers from as far north as Auckland and south as far as Timaru, plus Dave Pratley from Australia, arrived on Thursday and ready for the event. This was one of the better attended SoarChamps in the last few years. It was really heartening to see many new fliers to our sport along with the smiling faces that we have flown together with for many years. It was also great to welcome Suetonia Palmer, our first lady flier (ever?). She has been calling for husband Andrew as he flew Helis and Aerobatics for many years. As Andrew (in soaring!), she quickly learned to fly a Radian electric glider and was able to beat Andrew in the Radian contest!

It was great to also see many visitors and supporters travel to this remote venue. Thanks for making the effort.

Events flown were F3J, Premier Duration, ALES 200 (200m altitude limited electric soaring), F3K and Radian.

F3J

Scott Chisholm

F3J was set to go first on the Friday. The forecast for Friday wasn't the best, with showers through to 3pm then clearing. Everyone woke to find low cloud with drizzle out their windows. Nonetheless it had been decided we would all meet out at the field bright and early and make the call if we would kick it off or

retire back to the lodge to wait the weather out. It soon became apparent that the forecast was bang on and we were off back to the lodge for coffees. As the day went on the weather cleared quicker than expected and we were all back out to the field in the early afternoon to kick it all off.

The F3J task provides a 10 minute working time to try for as much flight time as possible within that time period. Pilot's flight times don't start until their model releases from the tow line and the model isn't allowed to be thrown until the start signal is heard. Pilots play with danger at the end of the round also to land as close to the end of the 10 minute working time as possible without over-flying the time frame and to hit the landing target.



Dave Pratley flew over from Melbourne for the event.



Joe Wurts prepares to launch Dave Griffin's Maxa

Seventeen pilots entered for the days flying and were divided into three flight groups flown within each round. This meant we could get through the rounds reasonably quickly, and given the late start it was an impressive effort by Dave James the CD of the day to complete 6 rounds in the afternoons flying.

Early on lift was light. As the weather cleared more though the afternoon we began to see patches of lift come through and people were achieving their flight times making the landing points even more important.



The battle at the front was intense with Joe Wurts, Sharn Davies, Peter Williams and Scott Chisholm all close together, making it very important to ensure landing accuracy.



Shelter from the rain!

It was great to see the rise in Sharn Davies' skill levels, in the past year he gets my "most improved" award. He continues to get better with each event and his experience grows.

It was also great to see newcomers Alex Hewson and Andrew Palmer both doing well in their first F3J competition. Andrew would have achieved a high placing if it wasn't for a sad situation seeing him look away from his model for a moment then looking back at another model whilst his proceeded to destroy itself. Andrew is showing very early signs he will be at the front very soon once his new toys arrive.

Late in the afternoon and as it turned to evening, it became extremely important to get good high launches and leave the model alone as much as possible to preserve its height.



Allan Knox with kiwi Icon.



We refer to this as being min-sink mode and it is a very good method to achieve good flight times in marginal lift like we were seeing. These conditions can see the scores separate quite often and results change.

At the end of the day, under almost darkness, we completed round 6. Joe was declared the winner. Yet again Joe's consistency and accuracy had him at the top of the results page followed by Sharn Davies and Peter Williams in third. Again top marks must go to Dave James for achieving so much from such a small space of time. Dave, it was very impressive and we all appreciate your efforts.

Premier Duration

Dave Griffin

Day 2 dawned clear and calm as we set up for NZ Premier Duration. This is a thermal contest requiring a 10 Minute flight in a 12 minute working time, with precision landing. It is flown in rounds and groups like F3J.

We managed a couple of rounds then clouds gathered and an active front could be seen heading our way on the weather radar iPhone app. It soon arrived and the rain set in. Models and valuable equipment were covered, a gazebo erected, and coffee and pies ordered. About an hour and 30 later we got back to flying for the rest of the day.



In the morning lift could be found and exploited, but after the rain the lift was harder to find and difficult to climb very far in. The best tactic seemed to be to cruise around very slowly in min-sink mode, working any gentle bubbles that occasionally showed a little climb potential.

Joe excelled as usual both in the flying and landing elements of the event.

Alex Hewson flying his "Perfect Maxa" - a model made from parts of two damaged models - flew really well all day placing just behind Joe.

Dave Griffin's new Maxa 4M and some smooth flying helped Dave into 3rd place



with more than one low level save to make the time target.

Our Australian guest Dave Pratley, flew well all day for 4th place.

Ted Bealing from Auckland, one of the older gentleman of NZ Soaring, flew really well with his new Maxa for 6th place.

After a great day Friday, Sharn struggled to find form in the light conditions struggling to make much more than eight minutes in many rounds.

Scott Chisholm flew well, but suffered a loss of time in the first round when he discovered his transmitter non-responsive to the on switch. A blown fuse was quickly swapped and he got started late to record five minutes.

Both Friday and Saturday evening we adjourned to the hotel for dinner and entertaining conversation on subjects dear to our hearts.

Saturday evening we were treated to a night flying demo by Andrew with his LED equipped heli. Andrew is a truly talented and well practiced pilot, really putting the machine through its paces. Via its LED system the helicopter glows various colours and flashes up a number of images such as stars, smiley faces and Pacman - very clever!



Long tail Maxa 4M made the most of the light air

ALES 200

Allan Knox

This is a brand new event this year with the rules approved at the Nationals AGM. It was flown between rounds of PD on Saturday. Weather, as noted elsewhere, was pretty awful at times and the lift conditions challenging. Despite this, 11 fliers fronted flying a variety of models. Everything from Radians to high end machines like Joe's electric Maxa. There were a number of other converted thermal soarers and couple of high end dedicated electrics including Pete Deacon's Graphite and Pete France's big 4m open structure machine. Allan Knox flew his own small design, a light 2m V-tail he calls the Apex. It is very agile and has good speed range, kind of like a big DLG.

ALES 200 uses a cheap altitude switch to turn off the motor at 200 meters above ground or 30 seconds, whichever the sooner. The goal is to complete a 10 minute flight including engine run time. A spot landing bonus of up to 50 points applies.

This contest was flown in four rounds with two groups and someone always got away to max out. Joe Wurts won all his groups, as we have grown to expect from this great flier, but others placed well too with Peter France (2nd overall), Dave Griffin and Allan Knox (3rd overall)



Andrew and Suetonia Palmer - new kids at the game, showing huge potential.



The F3K contingent.

winning groups. The little Radians struggled in the conditions but given a hint of lift they were maxing out just like the big expensive stuff. It certainly proved that ALES, 200 or 123, can be flown effectively with these cheap ARFs straight out of the box.

It was great to see Suetonia Palmer flying her Radian in this event, there are too few women in our sport. Suetonia joined in enthusiastically with all the weekend's

activities and I noticed that husband Andrew had a broad grin on his face as she dragged yet another winch line back. Well done that, lady.

All in all this was a great launch for ALES. I think it has firm support for the future. Look out for opportunities to fly it on the NDC calendar this year.

F3K

Dave Griffin

This was flown Sunday morning in bright clear conditions with enough wind to need ballast and to catch pilots out!

Quite a few, perhaps even all the fliers, landed out of the box at least once.

Many flights found no lift while others found lift that soon carried them a fair way back, leaving models needing to



John Shaw, Dave Griffin offer advice to Joe (yeah, right).

push back into the strong thermal fed wind to get back to the box. Eighteen pilots lined up for six rounds of F3K.

Joe and Alex flew perfects 1000's in each round to tie for first place. Scott was 3rd.

The Radian Contest

Dave Griffin

For many this was the highlight of the weekend (fun-wise, anyway!) The event was open to all Radians - Standard and Pro - with unmodified props and motors.

It had been announced beforehand that the task would be decided on the day to suit the prevailing conditions.

We set 15 seconds motor run and six minutes flight time with a landing within the landing tape adding 50 points.

All models were launched and climbed together for 15 seconds, and then fliers called their landing so the time could be recorded.

Three rounds were flown, with good scores posted by most fliers. Laughter could be heard much of the time - seemingly directly related to lift conditions.

Alex Hewson placed first, followed by Dave Griffin and Peter France. Congratulations to Suetonia placing 4th - ahead of husband and teacher Andrew in 5th!!

NZ F3J Team Selection

Dave Griffin

The SoarChamps also doubled as the team selection for next years F3J World Champs in Slovakia. Five fliers were keen to try for the team - Joe, Scott, Sharn, Aneil and Dave Griffin.

Scores from F3J and Premier duration were combined and the worst score dropped to select the team.

As noted above, the fortunes of pilots changed with the varying conditions over the two days. Eventually the top three were selected: congratulations to Joe, Dave and Scott. We have a world class team with these guys!

A great weekend's flying and camaraderie. Special thanks to David James, the Secretary of our NZMAA Soaring Interest Group and also the guy who gets stuck in and does so much of the organising and running of our events. Thanks David!

The Radian Flypast! No photo, sorry, but one of the highlights was seven Radians in formation (sort of) flying over just before the prize-giving. Great stuff.

Thanks everyone who came for making this one the best SoarChamps.

See you next year!

FAI has ratified the following Class F (Model Aircraft) World Records

Claim number: 16666
Sub-class: F3 Open (Radio Control Flight)
Category: Glider
Type of record: Distance to goal and return: 158
Course/location: California Valley, CA (USA)
Performance: 57.56 km
Pilot: John Ellias (USA)
Date: 28.09.2012
Previous record: 39.1 km (16.04.2005 - Gary B. Fogel, USA)

and

Claim number: 16667
Sub-class: F3 Open (Radio Control Flight)
Category: Glider
Type of record: Distance to goal and return: 158
Course/location: California Valley, CA (USA)
Performance: 57.56 km
Pilot: Dean Gradwell (USA)
Date: 28.09.2012
Previous record: 39.1 km (16.04.2005 - Gary B. Fogel, USA)



P.O. Box 64
Broomfield CO 80038
720-626-5576
support@Falcon-RC.com
Falcon-RC.com

FALCON RC
FALCON-RC.COM



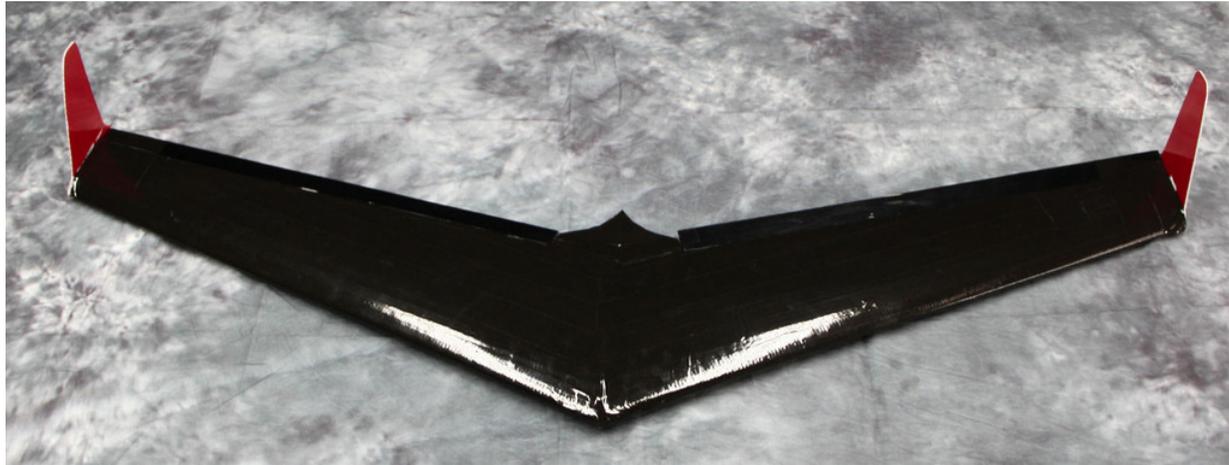
FALCON RC, Falcon-RC.com, is proud to announce their Grand Opening; starting June 5th and running the entire month of June. Check back often for great deals and steals. Over 20 years of RC experience, full scale experience and a genuine love for all things that fly have culminated in the new opening of FALCON RC's online store. FALCON RC will be offering a wide selection of EPP foam sailplanes, PSS and electric aircraft, all designed and created in-house. They are working hard to carry other hand selected models from other manufacturers, too. Other products like glue, foam, laminates, batteries, coverings and much more will also be available.

FALCON RC has a real commitment to finding new innovative and hobby changing technologies and material to improve our hobby.

With a 1000 sq. ft. shop and over 800 sq. ft. of storage, FALCON RC is positioned to store and carry many different RC items and inventory. Producing all of their kits with a state-of-the-art CNC machine controlled with professional software, FALCON RC is capable of holding tight tolerances on all of the kits they offer. Also included within their capabilities is vacuum forming and custom foam cutting.



FALCON RC Salto



FALCON RC Falcon 1

FALCON RC is proud to announce the Falcon 1, a Combat Wing.

The Falcon 1 flying wing has a 56" wing span and builds out at 12-16 oz. With that type of weight and wing area it yields a low wing loading. Our prototype weighs in at 14.375 oz.; with a wing area of 3.16 ft² that makes a wing loading of only 4.55 oz/ft². Today we were flying the wing in a 3 mph shifting breeze.

Using a proprietary airfoil and a new approach to wing flying FALCON RC now offers an option to combat wing competitors.

Bring your "A" game to the slope and humble your friends with FALCON RC's newest offering of the Falcon 1.

Utilizing a proprietary airfoil that has been in development for many years this wing can slow way down or push the nose over to gain lots of speed.

Complete with a carbon spar and extra carbon for stiffening. With a higher aspect ratio than other wings, this wing just looks cool in the air.

Get ready to dominate the competition when you buy FALCON RC's newest glider the Falcon 1.



Easy to transport, easy to build, and most importantly easy to repair, FALCON RC offers the semi-scale MDM-1 Fox.

Modeled after the full size glider, this RC aircraft can perform all of the normal aerobatics but slow down enough to be caught. Flown in 8kt – 45kt winds the Fox performs well and predictably.

With a span of 70" and a wing loading of about 10 oz./ft² this sailplane will perform in moderately light lift.

Selling for around \$139.95, the MDM-1 Fox is a good plane to keep in the back of your car to ensure flying time at your local hill.





FALCON RC Salto

FALCON RC is also introducing an EPP version of the H-101 German made Salto. Wing span 72", length 34".

Using a thin version of the RG-15 airfoil and a higher wing loading, 9.5 oz./ft², this model will move out when the conditions are right.

Fully aerobatic and visually pleasing, this is the first EPP model of the Salto.

Included in the kit are numerous carbon rods to stiffen the wing and fuselage. At a price of around \$169.95 this sailplane is a real bargain.

You should be an advanced beginner or intermediate flier or better to get the full benefit of this plane.



FALCON RC S-1 Swift

The FALCON RC S-1 Swift is a 72" span plane designed as a semi-scale EPP version of the Swift. With a low profile and moderate wing loading this sailplane is excellent when the conditions are good. Made from EPP and implementing a wing hole construction, this sailplane is very resistant to damage.

The Swift is another great sailplane to keep in the back of your car for those afternoon lunch hour flights. Selling for around \$139.95 you get a lot for the money.

Located in beautiful Broomfield Colorado, FALCON RC has many flying sites to choose from including

local slope flying, thermal fields and mountain flying. Colorado has an excellent group of pilots and FALCON RC is poised to help support these groups as well as all others.

FALCON RC's wing of aircraft includes an EPP Fox, Swift and Salto, plus a combat wing.

Soon to be added to the collection will include a EPP Pilatus B4, Blanik and an electric trainer. FALCON RC is continually searching for new materials, disruptive technologies and products to bring to the sport of RC sailplanes.



Upchucks

— or —
a failed attempt at verbal remote control

In his first hand-launch contest a right handed Philip javelin launching a left handed discus launch toy glider called a Dizzy Bird with mud on its nose from all the times it impaled the field (fortunately soft) before he took discus launch pioneer Dick Barker's expert advice to at least splint the flexing carbon fiber linkage in the cockpit so the launch preset would have a chance of tipping the rudder in the opposite direction of Frisbee like launch spin.

Philip is trying to get a wee bit more air time by not turning it downwind which gets it to the south end of the field where, from that just out of sight road beyond the tall grass and brambles Philip and his timer, national competitor Red Weston, who has already recorded 14 upchucks in six of Philip's allotted ten minutes which means Philip is not keeping his toy glider in the air for significant periods hear a dog's owner barking, "No Cory. Cory! Come Cory! CORY! COME HERE!"

Philip is wondering if the dog enjoys training its owner to bark and whether he'll get teeth marks in this plane like in the elevons of his Chinook that time that other owner said, "But she's a bird dog," as if explanation and ownerous love of dogs makes it all fine, when Red says, "Don't you wish you could have a dog so you could enjoy yourself yelling at it when it won't come back?"

Philip says, "I suppose I could find out how that would feel," and starts yelling at his toy airplane, "Here Dizzy Bird! Come. Turn left! Not that far left! Come here! I didn't say roll over! Don't roll over. No, Dizzy Bird. BAD!"

There is an embarrassed silence from beyond the tall grass and brambles.

Subsequently Philip explains that yelling at his toy airplane to get it to behave is not so satisfying an experience that he'd want to own a dog and seemed a less effective method of training Dizzy Bird than splinting the offending carbon fiber push rod, resetting the rudder presets, and upchucking it two or three hundred more times.

©4/02 Philip Randolph, amphioxus.philip@gmail.com

The Dizzy Bird wing still survives (photo at lower right). I generously (sic) gave it to Chris Erikson, along with a huge pile of wings from three sources. For EPP it flew well. It was manufactured by Adam Weston of Thermal Gromet Works. I linked its pod and boom fuselage to a bagged wing and sold it at a swap meet.

In the above 2002 contest, when I told Encore manufacturer Phil Pearson it was the best flying thing I had tried, he politely only rolled his eyes. No, it wasn't as capable as an Encore.

Red's Dizzy Bird was a longer wingspan version of his EPP Goblin.



Adam "Red" Weston

Philip and the Dizzy Bird



A raptor briefly participated in the late April SASS (Seattle Area Soaring Society) HLG contest. This series of stills came from one of several "Zoe" (Zoetrope) three second video clips captured by Adam Weston's HTC One. Two of these videos are available from the *RC Soaring Digest* web site:

<http://www.rcsoaringdigest.com/videos/SASS_Raptor_1.mp4>

<http://www.rcsoaringdigest.com/videos/SASS_Raptor_2.mp4>

Raptor and HLGs

Images by Adam "Red" Weston, red.hlg@gmail.com





Mike Furcolow, Big Mesa & Smith Mountain Colorado

Greg Hine, greghine@gmail.com

About a decade ago, Boulder Colorado (USA) based veterinarian and slope soaring enthusiast Mike Furcolow retired to a small, pastoral farm outside the hamlet of Paonia several hours west of Colorado's Continental Divide.

New to the area, Mike went looking for appropriate flying slopes. He explored the many mesas in this southwestern Colorado area and soon discovered a beautiful, free standing, flat topped mesa about seven miles west of Hotchkiss, Colorado and named it "Big Mesa." It is perfectly situated for flying with winds from almost any direction.

Cool mountain air descends down the Gunnison River Valley in the early morning creating perfectly smooth, gentle lift on a slope he named "Morning Glory."

A tight ridge perpendicular to the strong prevailing southwest afternoon winds was dubbed "Spinal Tap" for sheer front side and tight backside DS'ing opportunities.

A big slope farther south and facing into the less frequent northwest winds was christened "Cardiac Arrest," perhaps a take-off on what might happen when out of shape pilots have to ascend the steep slope after recovering a downed plane.

Mike also discovered a big slope perfect for the larger glass and carbon planes on the side of Smith Mountain farther west and south of Austin, Colorado.

At Mike's suggestion, about a half dozen years ago, the Montrose-based Western Colorado Slope Challenge was moved to "Big Mesa" where it continues to be held every April.



Mike Furcolow holding the Smith Mountain plaque after the brief ceremony.

On Saturday, April 27th during this year's Western Colorado Slope Challenge, the pilots had a brief ceremony of appreciation dedicating the flying slopes at Big Mesa and Smith Mountain to Mike. In appreciation, the pilots of the WCSC along with several who could not attend this year's event gave Mike two engraved, granite plaques which will be permanently mounted, one at each site. When in western Colorado and looking for a good time, check out these numbers:

Delta Big Mesa Complex

38° 47'17.81" N, 107° 51'06.32" W

Smith Mountain

38° 44'47.81" N, 107° 53'56.03" W



Video of flying at the Spinal Tap site in a previous year:
<<http://www.TinyURL.com/SpinalTap1>>

Video of flying at the Cardiac Arrest site from a previous year:
<<http://www.TinyURL.com/CardiacArrest1>>

