
Radio Controlled
Soaring Digest
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Front cover: Daniel Valsesia <danielvalsesia@hotmail.com> launches his Peak-Hobby Binary in Porretta Terme, Italy, where the Appenino Tosco-Emiliano mountains provide opportunities for both thermal and dynamic soaring. Daniel's interests include vintage and aerobatic designs, in addition to RC-HLG. He's able to fly from 10 AM to 6 PM at this site.
Canon PowerShot Pro1, 1/1000 sec., f2.8

Back cover: A scene from the Seattle Area Soaring Society's WoodWings1 contest, June 23 2008. Barron Shurn prepares to launch his Airtronics Cumic into the mid-afternoon sky.
Photo by Bill Kuhlman.
Konica-Minolta Maxxum 7D, ISO 100, 1/1600 sec., 80mm, f5.6

R/C Soaring Digest

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In the Air

Special thanks to Alex Paul, Nassau Bahamas, for the Osprey in flight photo on the Contents page of this issue, and to Jerry Slates, Santa Rosa California, for the Contents page image in the April issue.

Brian Agnew has started up Agnew Model Products and has two offerings already available. The Skyhawk II is a 124" span T-tail TD 'ship equipped with the RG-15; the Predator 4 has the same 124" span with the SD7035 and a more conventional tail location. The Predator 4 is also for thermal duration flying. These are described as kits, but come with wings and stabs pre-sheeted with obechi, all hardware, detailed instructions, flaps and ailerons cut, primer finish on the fuselage, and pushrod housings pre-installed in the fuselage. Prices are $500 and $550, respectively, plus $35 for FedEx shipping. Check out the Agnew Model Products web site! <http://www.agnewmodelproducts.com>

Some years ago the book publishing section of B²Streamlines printed "Sailplanes!" by Dr. Ferdinando Galè and Aldo Calza. It included more than 500 plans for full size gliders and served as a resource for scale enthusiasts, showing the wide variation in glider planforms, the evolution of glider design, and similar concepts. The first chapter of "Sailplanes," entitled "Scaling Sailplanes," was written by Dr. Galè, an aeronautical engineer, and focused on designing and building models which not only look like their full size counterparts, but also fly like them. This section detailed structural dimensions and materials, reduced Reynolds numbers, and achieving close to scale speeds. "Scaling Sailplanes" is now available as a free download from the *RCSD* web site at <http://www.rcsoaringdigest.com/pdfs/ScalingSailplanes.pdf>.

Time to build another sailplane!

POWER SCALE SOARING FESTIVAL

Cajon Pass California

May 26 & 27 2007

Carl Maas Jr., carlpmaas@sbcglobal.net

Photos by Dave Garwood, dave.garwood@yahoo.com

The Inland Slope Rebels Annual PSS Festival, like any other slope soaring event, can be a “hit or miss” affair when dealing with the wind. Often times great planes can be grounded by the wind gods.

In 2007 however, this was not the case.

Dave Hyde's sharp Vought A-7 Corsair II cruises over the valley in front of the main hill flying site. The plane is built with a molded fiberglass fuselage. Dave is from Long Beach, California. Talk about realistic!

Brian Laird's North American F-86 Sabre. This was one of seven ISR Sabre club planes built from fiberglass fuselages molded by Dan Sampson built and flown for the 10th anniversary PSS Festival.

The winds started early on this festival, beginning at the Point Fermin California fun fly event on Thursday May 24th and continuing to get better throughout the entire official event weekend of May 26th and 27th. During Saturday's main event, the winds reached over 30 mph, the pilots were beaming, and the slope machines were rocking the slope.

The site is located in the Cajon Pass in San Bernardino California and channels the wind straight into the face of the slope. It allows for a large flying area which is divided into two flying zones: one for standard slope gliders and one where ultra fast slope rockets and custom super detailed models are flown. This makes it safer and more fun for all. Much of the PSS fun style formation flying and "buddy" sessions can be found on the standard slope. The fast slope is a place to behold, with high-speed passes, high energy stall-turns, and breathtaking low passes with a gaggle of cool PSS slopers.

The main event started on Saturday with registration, safety meeting, meeting with the district ranger, and then open event flying. The event focus is on Power Scale Soaring, or scale models of powered aircraft. It is a slope soaring event only, with no power aircraft allowed during the event.

Rick Schwemmer launches a North American F-86 Sabre at the beginning of the the en-masse ISR Sabre club plane flying session.

Pre-flighting an ISR club project North American F-86 Sabre are Brian Laird, Paul Masura, and Dan Sampson. Brian won the Craftsman Award with this model.

Carl Maas Sr.'s North American F-86 Sabre, one of the ISR Sabre project planes. The detail on this model was incredible, including individually fitted aluminum panels as the outer skin. Carl, from Fullerton California, took the "Best in Show" award with this model. Others in the judging area are seen in the background.

In addition to the fun flying event, there is a no holds barred static scale contest. The categories are: Best Jet, Best Civilian, Best Prop aircraft, Best Foam aircraft and of course Best of Show. The four main categories are judged by Master Craftsman Carl Maas Sr. and aviation expert Bill Pelzer. This year additional judges were added to support the large amount of entries. The Best of Show is decided by a group of respected slope soaring pilots.

The Inland Slope Rebels soaring club really tried hard to put on a world class event. Again this year there was a wonderful lunch service by Lori Maas, who works exceptionally hard to make it like home for the pilots. The awards were presented at the end of the day, and then there was a killer raffle which included awesome prizes donated by Airtronics, Soaring USA, Leading Edge Gliders, Cermark, and many other generous vendors.

One of the more exciting models to show up at this event was the Inland Slope Rebels F-86 Sabre. The club decided to develop an F-86 as a club project. A plug was created, and seven F-86 Sabers made it to the event. They were built by Ian Gittins, Brian Koester, Rick Schwemmer, Brian Laird, Carl Maas Sr., Carl Maas Jr., and Jeff Fukashima. These planes were very scale, with large fuselages and detailed cockpits. They ranged in weight from 60oz to over 100oz! They were exciting to see fly, especially when four were flying together.

Ian Gittins spend countless hours detailing his beautiful ANG version, with a million rivets and stunning paint. Brian Koester built custom drop tanks for his F-86 decked out in red, white and blue Skyblazers show team color scheme. Brian ended up with a first place in the best Jet category for all his hard work.

Carl Maas Sr. finished his absolutely amazing F-86 Sabre in real aluminum foil, panel by panel, including all rivets burnished into the surface, and this resulted in the most stunning finish you have ever seen. It was almost unbelievable that this was a slope soaring aircraft. He was voted Best of Show at the 2007 PSS Festival.

Dave Garwood showed off his uniquely finished Sukoi Su-25 Frogfoot Russian ground attack sloper. This plane flew really well and looked great in the air. Dave built this plane to be transportable, with the wings and tail removable for travel. Dave's wife Paula hand painted the frog on the vertical stabilizer as well. This has been a long term project for Dave, and the craftsmanship really showed.

Jeff Fukushima brought his new P-61 Black Widow, and it was so beautifully airbrushed. It was weathered to match the real dull black paint job, with dirt and oil streaks, and looked fantastic in the air. Jeff develops and sells kits through Vortech Models.

Dave Hyde was also a standout with three beautiful new models: An A-7 Corsair II (lead-in photo), T-28 Trojan, and a S3A Viking. These great looking models were scratch built from EPP foam, and finished in Solartex. Dave painted and decaled these planes to look like the real thing; very nice and unique PSS slopers. The crowds loved watching Dave throw these one of a kind slopers off the cliff.

Dave Garwood's Sukhoi Su-25 Frogfoot, the soviet counterpart to the United States' A-10 Warthog in special paint for the Boscome Down air show in 1992. Toward the end of the cold war Soviet aircraft appeared at western air shows in greater numbers. Built from a fiberglass fuselage designed and molded by Carl Maas.

Jeff Fukushima's Northrop P-61 Black Widow twin-engine night fighter. An original design, built for the event, Jeff kits this sailplane through his company Vortech Models <http://geocities.com/vortechmodels/> in Monterey Park, California.

Steve Breen scratch built a Nemesis NXT racer. This cool little plane used a molded 'glass fuselage and looked excellent in its gleaming yellow paint job. Really smooth flying.

Jan Carstan brought an excellent example of a Douglas A1-H Skyraider. This plane was made from EPP foam Leading Edge Gliders kit and looked really realistic, and had a very nice finish. Markings really made this plane look realistic. Jan came all the way from Massachusetts to attend this event. It paid off, as he won first place in the Best Foam aircraft category.

Brian Laird scratch built an Ambraer Super Tucano, and it has an unbelievably detailed cockpit, with all instruments, seats, harness straps, and pilot. Painted in the two tone gray paint with a shark mouth motif, this detailed beauty won first place in the Best Prop aircraft class.

Doug Blackburn also built a nicely detailed Super Tucano, finished in all black with yellow trim.

These planes flew fantastic, and are a tribute to the fact the PSS planes can not only look great, but fly great as well.

Lori and Carl Maas entered a Boeing 727-23 Trump jet in the Civilian category. They worked as a husband and wife team, and had a great time building this project together. This

Above: Jeff Fukushima's original design large scale Vought F4U Corsair, molded in fiberglass. Jeff kits this sailplane through his company, Vortech Models <http://geocities.com/vortechmodels/>. Jeff lives in Monterey Park California.

Left: Marty Hill's MiG-3, built from a Jack Cooper 60-inch EPP foam kit, available from Leading Edge Gliders. Marty came from Malad, Idaho to fly at the event.

Brian Courtice's Aero L-39 Albatros, in fiberglass. Brian came from Hawaii for the event and took fifth in Civilian with this model.

Upper: Brian Laird's fiberglass Embraer EMB-312 Tucano, an ISR club project plane from the 1990s. Brian hails from Moreno Valley California.

Left: Doug Blackburn's fiberglass Embraer EMB-312 Tucano, an ISR club project plane from an earlier time, and the subject of a fast-paced build thread on R/C Groups. Doug lives in Yucaipa California.

little plane was finished in fiberglass and painted using Krylon black and white. All lettering was custom made, including all the detailed windows and markings, and the gold Trump lettering. Lori was excited to win first place in the Best Civilian category.

What was really impressive was the number of new scratch built and customized slope gliders this year.

I know of over 30 new PSS planes that were entered in the contest and almost as many that were brought just for fun flying.

I was so impressed with the amount of work that was expended to build these highly detailed scale slope machines and these were some beautiful models that the builders were very proud of.

BEST JET category winners
L-R: Brian Koester, Ian Gittins, Russ Thompson, Dave Garwood, Jeff Fukushima.

BEST CIVILIAN category winners
L-R: Brian Courtice, Jonathan Ludwick, Steve Breen, Juergen Kahlweiss, Lori Maas.

The 2007 PSS Festival was a fun event to remember, and definitely the best part is just getting to hang out with really cool PSS slope pilots.

The PSS Festival series will be held every other year going forward. Hope to see you all at PSS Fest 2009!

Inland Slope Rebels
http:\\www.inlandsloperebels.com

BEST PROPELLER category winners
L-R: Brian Laird, Jeff Fukushima, Paul Masura, Ian Gittins, Robert De Mayo, and not shown (tied for fifth) Doug Blackburn.

BEST FOAM category winners
L-R: Jan Carstanjen, Dave Hyde, Phil Herrington, Nick Stong, Marty Hill.

Leading Edge Gliders

EPP warbirds

Dave Garwood, dave.garwood@yahoo.com

Dave Garwood and his 60-inch span LEG Curtiss P-40 Warhawk at a Midwest Slope Challenge event at Wilson Lake in Kansas. Photo by Rich Loud.

Here's a "must have" slope sailplane: the Leading Edge Gliders 60-inch EPP warbird.

Our enthusiasm for this kit comes from three years of flying them, and especially from one memorable slope flying day this past summer. In July, Joe "Stratocaster" Chovan and I flew in some excellent lift at Lake Ontario. Although we both flew other planes that day, the gliders we spent most of our time flying, horsing around with, and laughing it up with were our 60-inch LEG warbirds.

There are several models this series, including the Bell P-63 Kingcobra, Curtiss P-40 Warhawk, Douglas A-1H Skyraider, Focke Wulf FW-190, Kawasaki Ki-61 Tony, Lockheed P-80 Shooting Star, Messerschmitt Me-109, North American P-51 Mustang, and Supermarine Spitfire..

There are also 48-inch and 72-inch span kits available, so you can select the size that suits your personal style and available storage space.

Joe Chovan's 60-inch span LEG Lockheed P-80 Shooting Star over the Berkshire Mountains in western Massachusetts.


USAF

Dave Garwood's 60-inch span LEG Curtiss P-40 Warhawk over Wilson Lake reservoir in central Kansas. Photo by Greg Smith, <http://www.slopeflyer.com>.

Marty Hill launches his 48-inch span LEG Curtiss P-40 Warhawk from Cajon Summit at a Southern California PSS Festival event.

Jack Cooper, LEG designer and manufacturer, at Wilson Lake Kansas at the Midwest Slope Challenge in 2004. Jack is holding an LEG P-80 Shooting Star and talking with local ranchers. At his feet are 60-inch span LEG P-40 Warhawks. Jack liked life at the Lake so much he moved his designing, testing, and manufacturing operation to Lucas, Kansas.

Joe Chovan just prior to launching his 60-inch span LEG Lockheed P-80 Shooting Star at the Mohawk Trail flying site in western Massachusetts.

Joe and I like the combination of impressive appearance and sterling flying characteristics that the 60-inch span planes deliver. We build them with removable wings so they fit easily in a car or station wagon.

If you're new to EPP foam warbird construction, you can learn foam construction and finishing methods with Greg Smith's "LEG EPP Building Clinic," an instructional four-disc DVD set where Jack Cooper himself (the designer) demonstrates his building methods, with an emphasis on building the kits quickly.

All the LEG foam warbird gliders that I've seen look good, fly well, and absorb quite a bit of abuse on landing.

As Dave Sanders taught us, "It's not a crime to fly a model airplane that looks like an airplane."

Joe and I rate them as "must have sailplanes" for slope conditions where medium to strong lift, and tough landing conditions are expected.

Dave Garwood's 60-inch span LEG Bell P-63 Kingcobra over Lake Ontario in upstate New York. Photo by Joe Chovan.

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Leading Edge Gliders
http://www.leadingedgegliders.com

SlopeFlyer.com
http://www.slopeflyer.com

A Report on the *2008 Weak Signals* Radio Control Orgy and Swap Meet

Tom Nagel, tomnagel@iwaynet.net

I saved up my pennies and made my plans, and the first weekend in April I made my annual pilgrimage to Toledo Ohio for the 54th Annual Weak Signals RC Show.

I didn't see any nudity or any sexual activity, but it is not too much of a reach to think of Toledo as an RC orgy and swap meet. The Toledo show boasts more frenzied RC fans per cubic centimeter than almost anywhere on the planet. (It's probably better not to refer to the show as an RC orgy and swap meet when your wife is around, though.)

The entire main floor of the large convention center is packed with nationally known vendors, and crowds of RC fans inch their way up and down the aisles. The entire "mezzanine" area on the second floor, and all of the second floor meeting rooms are stuffed with swap shop vendors and smaller RC providers.

A static competition display area runs the entire length of the main floor area, plus a "T" that runs off to one side at show center.

Gordy is running loose.

There is a small flock of young ladies in halters, hot pants and high heels, whose RC related function is not immediately obvious to me. (Sorry, I didn't get any pictures of Gordy or the young ladies. Check YouTube.)

It takes pretty much an entire day just to cruise the whole show just once. If you are with my buddy Don Harris, who knows everyone in the place, it is better to set aside a couple of days.

Pretty much the only thing missing from the Toledo show this year was RC blimps and, unfortunately, sailplanes. (There have been both in years past.)

Actually, there were some sailplane booths and entries at this year's show; but if RC sailplanes are your main interest, you have to be content with a few entries in the static judging and then concentrate on the "accessories" to the sport.

I also like to look at some of the stranger RC vehicles that get brought to Toledo.

When I headed out onto the floor with Doc Bell, our club's flight surgeon in tow

Left: Flyboy Models' giant scale Blohm & Voss BV 237.

Above: Dr. Keith Shaw was on hand with his 2008 offering, a 1930's era racer.

(just in case) the first display I walked up to was Flyboy Models' giant scale Blohm & Voss BV 237 ground attack and dive bomber aircraft. Doc Bell explained to me that it is a little known fact that both Herr Blohm and Herr Voss suffered from severe neurological deficits which pretty much accounts for the design of this plane. We pressed on.

Dr. Keith Shaw was on hand with his 2008 offering, a 1930's era racer, electric of course, powered by A123 cells.

Down the way a piece was a gull-winged seaplane racer called the Swoose scratch-built by Faye Stilley. The combination of the bizarre Monokote scheme and the gull wing shape compelled me to photograph it.

I was also fascinated by the Shearwater, an electric scale model of a New Zealand amphibian plane. The lines on this model were absolutely beautiful.

As a result of all this model oogling, it was almost lunch time before I reached he RC sailplanes in the static competition, all three of them.

There was a 130" Oly III by Tom Skully of Cadiz Kentucky. Tom made a few modifications to Ray Hayes' kit in order to make the big Oly III look more like Oly I and Oly II. I liked seeing the Oly, but kept wondering where Lena was. I must listen to too much Garrison Keillor. Tom Skully won first place in the sailplane division.

Troy Lawicki, the Duck Man, entered his Big Duck. It featured a pylon mounted wing (unlike other Ducks that I have seen)

Left: The Swoose gull-winged seaplane scratch-built by Faye Stilley. It won First Place in the Monokote division.

Below: The beautiful lines of the Shearwater, an electric scale model of a New Zealand amphibian plane.

and a beautifully engineered pull-pull rudder and elevator system. In addition, the tail surfaces are designed to detach easily for transport.

The third sailplane entry was a Lanzo Floater by Lawrence Latowski.

OK, it was finally lunch time, and time for the next big disappointment for 2008. The Chinese Restaurant down the street has been demolished to make room for some new construction. We wound up eating at Tony Paco's, down by the ball park. If you are a fan of MASH, you will remember Tony Paco's. The polish sausage lingered with me all the way home to Columbus that night.

Back to the RC orgy and swap meet.

The League of Silent Flight was on hand with a booth, but I couldn't get them to talk to me. Either they have taken offense at my columns, or the new officers take the Silent part of the name too seriously.

Barry Kennedy was on hand, and reported having sold a bunch of Supras, but he didn't really have a sailplane display booth as such. NSP didn't show.

There were a couple of Chinese guys selling German made scale slopers, but the language barrier was immense if you wanted to learn anything about the products. How much did it cost? One of the Chinese guys handed me the building instructions from the sloper, and it said "Dies ist kein Kinderspielzeug." But I kind of knew that already. Onward.

I did make four sailplane-related finds at the show.

1. Hitec/Hobby Lobby -- Hitec/Hobby Lobby had lots of sailplanes in their


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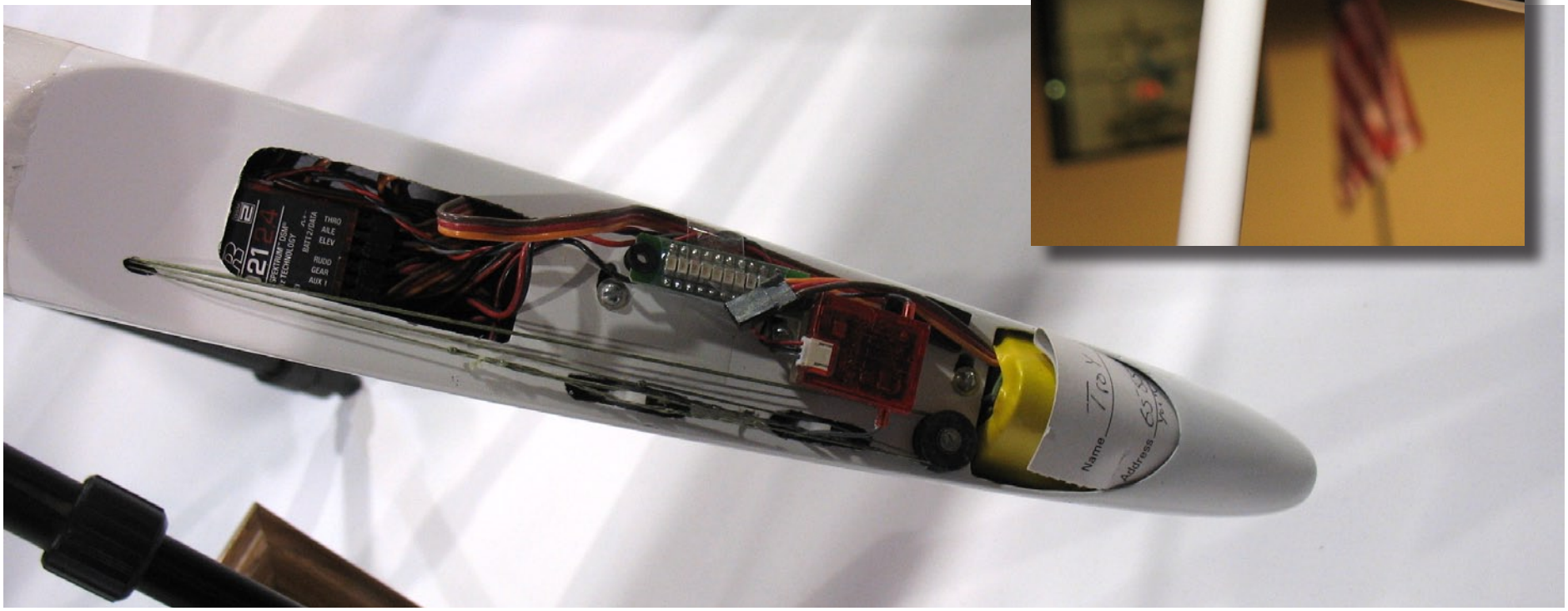
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Multiplex showed off the new EasyGlider Pro.

The CropCam display.

large display. The popular Easy Glider has been updated and will be called the Easy Glider Pro. The new version will not be available in the US for at least a few months, and if your club has a one-design contest for Easy Gliders, as my club does, you should be able to get the original speed 400 electric version for some time yet.

Gerhard from Multiplex explained that with brushed motors being harder to locate and brushless/lipo technology taking off the way it has, it only made sense to re-engineer the Easy Glider to

Opposite page:
Upper left - Lawrence R. Latowski's Floater, a Chet Lanzo design.
Lower and upper right - Troy Lawicki's Big Duck. It featured a pylon mounted wing and a beautifully engineered pull-pull rudder and elevator system. The tail surfaces are designed to detach easily for transport.

take advantage of the current technology. The Easy Glider Pro has a new hatch with an improved (I hope) latching system. The battery compartment is reconfigured to accept lipos instead of an eight cell NiMH pack. A firewall has been designed to accept a bolt-on brushless motor, and an improved prop is provided.

Also, now both the electric and un-powered Easy Gliders will have tow hooks. Gerhard said that the Pro would allow for easy set-up of an aero-tow release as well. From the cockpit on back, the fuse and wings and tail feathers are unchanged. I am sure that the Easy Glider Pro with its improved performance under power will be very popular.

Multiplex was also showing the big Cularis this year, and it was nice to see the big Elapor bird close up. The Easy Star, a great beginner plane, will continue to be available.

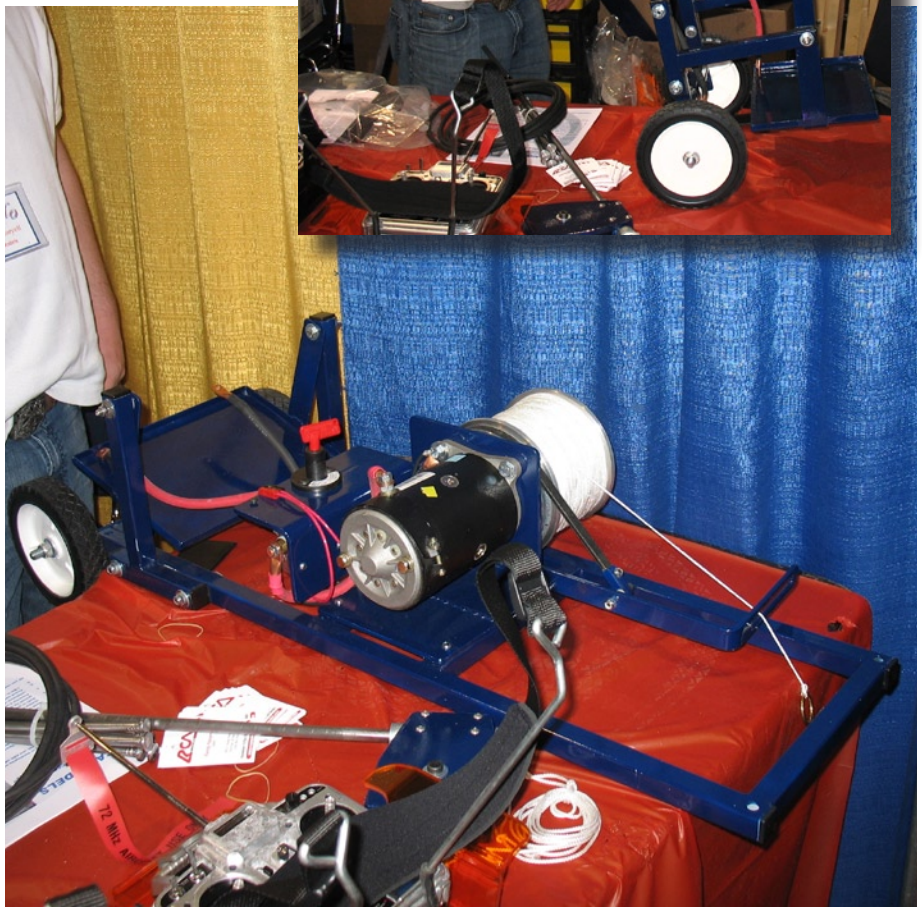
Finally, Multiplex was showing a sleek V-Tailed Elapor sloper/hot-liner called the Blizzard. The servos for the V-tails are located far back in the fuselage and I meant to ask Gerhard why, but got sidetracked. This 54" hot rod looks to be a lot of fun.

Multiplex will be offering power packages (motor, nice new folder prop and speed controller) as well as electronics packages (servos, connectors, receiver) for the Blizzard, Easy Glider Pro and the Cularis.

2. The Little Hot Winch -- I guess it was inevitable that a little hot winch would show up at an RC orgy and swap meet. This new product is offered by RCA Models and is best thought of as a hand truck mated to a sailplane winch, with a gimballed battery carrier attached. When you lift the handle of the hand truck to wheel the hot little winch onto the field, the gimballed battery swings out to stay level, avoiding spilling acid and counterbalancing the winch.

The unit comes complete with anchors, tall staked turn-around, foot pedal switch, dual solenoids, keyed battery

The Little Hot Winch with gimballed battery carrier.



The Wing sling display.

disconnect and 1400 feet of braided 250 line. I got the feeling these fellows were new to sailplanes, but the winch looked like a good design. You can contact them at <http://www.rcamodels.com>.

3. The Wing Sling -- Sometimes be best ideas are not high-tech. The nice ladies of Wing Sling will fix you up with a custom made slings for safely storing and transporting your sailplane wings and fuselages.

If you travel by air like Gordy you need a Sports Tube.

If you haul your planes by minivan or SUV or truck or trailer, you might be able to use a set of Wing Slings. These light webbing loops fasten to floor and ceiling of your basement or van or trailer and help prevent the spread of hangar rash by safely cradling your fragile airframes out of harm's way.

You can contact Wing Sling LLC at wingslig@att.net or check their website at <www.wingsling.com>. A custom set of slings will hold six wings or fuselages (or three of each, I suppose) and costs $29.95.

4. The CropCam -- I saw one other booth that at first looked like a vendor of electric powered sailplanes. I did a double-take when I saw the sign: "CropCam." This Canadian firm out of Stoney Mountain Manitoba is selling electric sailplanes with an eight foot span, an electric motor, automatic navigation, GPS guidance and an automatic Pentax digital camera so that farmers can do aerial inspections of their crops during the growing season.

The plane is an Electra Pro from Northeast Sailplanes and the radio is a 2.4 gig unit.

The CropCam was designed to provide quick turn-around aerial imaging for farmers who need information for seed coverage, watering, fertilization and pesticide application. The firm offers a five day training course for new users. Their website offers no word on if they teach you how to thermal. It seems to me this is the kind of thing that happens when Gordy visits Canada too often.

Okay, gotta explain the banjo photo on the next page. Dave Brown recently retired as president of AMA after serving in that post for approximately 350 years. Dave also runs his own model supply business, Dave Brown Products, and shows at Toledo each year. I was taking some photos and mooching around for freebies late Saturday afternoon when I heard someone playing 5-string banjo — Foggy Mountain Breakdown, if I recall correctly. I tracked down the sound, and there was Dave Brown plunking away. As a fellow plunkist, I felt free to trade banjo jokes. (What's the best song to play on a banjo? Far, Far Away. What's the difference between a

Left: George Maiorana's beautifully finished Russian TU-95MS won first place in the Designer Scale Plane category. George is from Sterling Heights Michigan. Sans landing gear and props, the TU-95 would make a wonderful large scale PSS 'ship.

Below: Dave Brown, former AMA President and owner of Dave Brown Products, plays a 5-string banjo. Dave's company not only makes items for the model aviation scene, but also produces gadgets for the music industry.

banjo and a trampoline? You are supposed to take your shoes off before you jump up and down on a trampoline.)

Turns out that Dave's company also makes gadgets for the music industry, including one that clamps onto the back of the banjo neck up at the top and allows you to quickly and easily "cheat" from G tuning to D tuning. It is amazing what you find out about people.

We left the show when they chased us off the floor at 5 pm and headed home.

We decided to finish the day with a gourmet dinner along the way at the G & R Grill in Waldo, Ohio (I am not making this up) home of the famous 1/3 pound grilled bologna and onion sandwich. As a lawyer, anything stuffed with baloney appeals to me, but I must report there were certain synergistic reactions between the G&R grilled baloney and the Tony Paco polish sausage that might be better left for discussion in another forum.

I can hardly wait for next year!

Uncle Sydney's CIAM Gossip
Lausanne's damp squib

Sydney Lenssen, sydney.lenssen@ntlworld.com

After all the arguments about chopping 50 metres off the F3J towline length, FAI's 2008 CIAM meeting in Lausanne rejected any change. Talk about a damp squib - more like a lead balloon - the RC Soaring Committee spent barely two minutes on the radical proposal. No talk about the pros and cons, no discussion about "what-ifs," the technical committee found no reasons to apply any new towline ideas to the international rules because the change had not been tried out at any proper "big" competitions and therefore was not proven. One in favour, 12 against and one abstention, that was that!

Belgium's proposal to penalise any pilot who lands his model leaving the tail stuck in the air was given equal short shrift, three in favour, nine against and two abstentions. It was withdrawn, and as some joker pointed out, "we don't want pilots turning up with tailless models do we!"

Best CIAM news for me is that France will host the next F3J world championships in 2010, and the likely venue is Arbois where the French have held their recent Eurotour events, a lovely location with super food and abundant fine wines! That will be a treat and super incentive for pilots to fight hard for their national team places.

F3B is to get a new name - "radio controlled multi-task gliders." The launch line for F3B and F3J can only be moved between rounds should the wind direction change. F3K handlaunch gliders get official FAI status at last, both for seniors and juniors competing separately, with the first Eurochamps to be held in 2010, and the first world championships will follow in 2011 either in Sweden or Croatia.

Back to F3J: all of the sensible proposals for splitting the last two metres of the landing circle into 20 cm divisions worth one point each; a refly for crossed lines blocking launches and 100 point penalty for not removing lines after launch - (more headaches for timekeepers and CDs); reducing the frequency spacing between transmitters to 10 kHz below 50 MHz and 20 kHz above 50 MHz; and the new matrix rules; all were passed and are applicable from January next year.

Some gossipers might blame Uncle's column for helping to create the furor on 100 metre lines, and to those who feel annoyed, my apologies. Discerning readers might also recall the words: "Nobody I know is sure whether the committee really wants to see the change or whether they are offering the proposal to get Jojo off their backs."

The facts are that the proposal for shorter lines was put on the agenda by

the RC Soaring subcommittee itself, not by a national committee. An e-mail was circulated last summer asking committee members if they wanted it on, and they did, and then they chose six months later to reject it. The danger with this sequence is that it will discourage serious advance debate on agenda items proposed by the subcommittee in the future.

I am reliably informed that no CIAM meeting for many a long year has sparked such advance speculation, and if interest in the machinations of FAI in Switzerland results, then that cannot be bad. Whatever, shorter lines are certainly dead for a long time ahead! Sooner or later, the question of F3J winch launching will be back.

Short line feedback

Much of the short line feedback coming my way has been interesting. David Hobby, Arend Borst and several other high-flyers reckoned that everybody has to follow the same rules, so what does it matter. Not surprisingly, they are confident and content to leave the rules to CIAM. Several pilots became excited about the model design changes which would be sparked by the need and ability to launch faster. One was convinced that the change had been promoted by manufacturers wanting to promote the next generation of models. Of course nobody would seriously follow that line.

Turkey's budding junior pilot Esra Koc and super host Semin Kiziltoprak who can't wait for the Big Event this summer.

Many pilots were far more concerned about collision dangers and discouraging newcomers to F3J.

Peter Zweers was keen to test pilots' skills and suggested that the number of helpers should be limited to two. If a pilot chooses to use two towmen, then he forfeits his spotter and needs to launch himself. The official timing system would need to give more information to the pilots, for example there could be a five minute signal, and beeps or 10 second announcements over the last minute of the slot.

Another novel idea I liked came from Arend Borst, not that he thinks that it would get much support. Make a 0.5 metre circle on the landing spot and the pilot stands there. To gain a 100 point landing the pilot must catch the glider by

the nose - only the nose! If he loses his balance or stretches too far and steps outside the circle, then he loses 10 points for one foot out, and all his points if two feet step outside. If the glider hits the pilot other than the nose catch, then he scores zero. If he opts not to stand in the circle, then the maximum points he can earn is say 98 and down for every metre away from the circle. Should the pilot need to come in at speed, “coming in hot” as Arend puts it, and feels it is not safe to catch the nose, then he walks away and spears the glider in the circle for 98.

Who says F3J could not be a spectator sport!

Guy Mertens from Belgium wrote a chatty letter covering many aspects of the sport from his earlier days flying and organising thermal contests to today. Ideal F3J rules should promote the competition as suitable for everybody, rich and poor, young and old, the home builder and buyer of ready-to-fly. He wants to see the end of “speared” or “dorked” landings - a glider should glide into a landing. He would do away with reflights with only two exceptions, when someone flies on the wrong frequency or the contest organiser is at fault.

As an Oldie, I am sympathetic to the wish to attract all pilots who enjoy thermal soaring. In the UK, up to 40 or so regular F3J pilots who travel to most league events wherever they are held, but that is usually within 200 miles of London. But in Kent, to take one county for example, BARCS thermal contests attract 50 or more competitors regularly, many of whom have the ability to win team places.

Larry Jolly and Arend Borst repeated a serious complaint which should have been addressed by a new rule this year. Launch positions for pilots in the flyoffs should be moved along three places after each flight. Far too often air conditions make it easier to latch onto kind air on one side rather than the other, and the 150 metre plus distance from one end of the flight line to the other can easily mean missing the bump. This same problem applies in the preliminaries where some matrices tend to place some pilots at the far end too often and vice versa.

Grateful thanks to all who got in touch.

Turkey’s Big Event

As I write (04 April) there are 86 days to go before the 2008 F3J World Championships. News of who will be going, and more sadly who will miss out this year, will wait for nearer the time, plus the predictions of course. If you have WC team news and gossip, please let me know.

Before then, next week, I shall be flying to Turkey and Adapazari for the first of this year’s Eurotour contests, hoping this time that this beautiful and perfect flying field will not suffer the stormy rains which beset last October’s champions’ championship causing the event to be abandoned after three rounds. 2008 will be a world championship to remember - don’t miss it!

Sandy Pimenoff, stepping down after 40 years, in typical positive mode.

Long live the King!

Lausanne saw the retirement of CIAM President Sandy Pimenoff, or as I prefer to think of him, FAI’s King of Aeromodelling. He has dominated that job for the last 40 years, and CIAM is

CIAM get-together in 1964 with then future President second row central, with 44 years yet to go and already smiling! Spot UK legend “308” Henry J Nicholls, front third from the left. Prizes for naming the others.

unlikely to be the same again, although he will still make his presence felt as president of honour.

I cannot claim to know Sandy as a close personal friend, although I have known of him and his contributions to our sport for nearly 40 years. We met first at Upton for the first F3J WCs, and again in Corfu. In Lappeenranta 2002, his home country, we and the team managers chatted and skinny-dipped after a proper woodburning sauna which left everyone smelling like kippers for three days after.

My first encounter was through the writing of Ron Moulton in RCM&E in 1971 when a party of Europeans flew over to Doylestown in the US to fly in an AMA organised international F3B championship consisting of pylon racing and thermal soaring.

Sandy took with him a Graupner kit of the then new, and later to become the legendary, Cumulus, a 2.8 metre two channel soarer, with balsa covered white foam wings and a plastic fuselage, one of the first ARTF. Snag was that the model was not yet ready to fly, and although everyone was drooling over the various parts on the plane flying across the Atlantic, he still had to iron film on the wings and fit the radio, which he did in the motel.

First he had to persuade AMA to drop their home-baked rules which did not conform to FAI, then he entered the glider contest, one of 12 competitors. And he won. After the first round in which he had enjoyed a remarkable flight longer than any of the others, a big rainstorm swept across the field and that was the end of that. A legend was created.

(For those with long memories, Brits Geoff Dallimer and Dave Dyer were in the contest, Fred Militky from Graupner demonstrated and flew for 30 minutes with a twin electric motor pusher glider, and Dieter Schluter working with Kavan rocked the US hosts with a RC model Cobra helicopter.)

Sandy was born in 1937 and has flown models since 1952. Four times he was Finnish national champion in free flight power. His first encounter with FAI was as an observer in 1961, climbing rapidly to CIAM vice-president in 1965

and president in 1967. He has been jury member for more than 30 FAI championships, and has been awarded FAI diplomas and medals in 1977, 1986 and 1991, and the Gold Air Medal 1996.

Anyone who has served on a model flying club committee will know what a thankless frustrating and impossible job it is. What can it be like to meet a couple of times a year with 30 to 60 delegates from all over the world, with vested interests and often absolute ignorance of most the many specialist forms of model flying, with all the different languages and an agenda so long that doesn't allow any item more than a couple of minutes? What does it take to keep tight control and the admiration of almost all for so long?

Well Sandy has done it. I do not know how. I have heard him speak in many languages. I have seen him being tough in a rowdy meeting of arguing team managers. I have listened in 2002 when he feared passionately that the US and UK would initiate military action in Iraq. He is a remarkable man and our sport owes him respect.

So, the king is dead. Long live the king - the new man is Bob Skinner from South Africa. Long live the king -- but not for 40 years again please.

— Uncle Sydney

When is it too WINDY to fly your glider?

Ed Anderson, aeajr@optonline.net
Aeajr on the forums

This discussion is going to be about flying a thermal duration glider in the wind. We are going to discuss how to make the glider more wind worthy and how the pilot can achieve a higher level of confidence when flying in the wind.

The discussion is focused on new pilots or pilots who have achieved a level of confidence with their thermal duration glider, but have been hesitant to take it out on windy days. If you can't fly on windy days, that means fewer flying days. Let's see if we can add some of those days back to your flying schedule.

What do you consider a windy but flyable day? And what do you consider too windy to fly? Is 5 mph good? Is 10 mph too much? Would you set out the hi-start or the winch at 15 mph? Does a forecast of 20 mph winds seem like good weather to go hunting for lift?

If you launch using a hi-start, wind will actually help you get higher launches. In this respect wind can be very helpful. As the glider climbs, the wind takes the glider up like a kite. When I first started flying gliders I was amazed by the height I could get with my Spirit when I had a 5-7 mph breeze as opposed to launching in calm conditions.

However, as the wind speeds started to approach 10 mph and the gusts got stronger, I had trouble handling the plane. My Spirit would be tossed around, giving me a feeling of being out of control. And landing was an adventure as ground turbulence goes up with wind speed. I found I was paying

more attention to stability and less to lift indicators. This was not fun!

Even today, as a member of a glider club, when the wind forecast is for more than 10-mph winds, the turnout at the field is very small. So, is 10 mph too much wind for flying a glider?

Regardless of what glider you fly, there is no question that it is harder to penetrate up wind or to work the thermals that may be out there when you are flying into a strong wind. And you will have to bail out earlier rather than risk getting caught downwind. As a result, your range of workable sky gets smaller.

After being grounded on too many windy days, I started to think I needed a new glider, a windy day glider. And, of course, it is true that some gliders handle wind better than others. But is that the only solution? Do we have to keep upgrading our gliders as we wish to challenge higher wind speeds? Read on and let's find out how to make whatever glider you are flying today more wind worthy.

BUILD LIGHT – ADD WEIGHT LATER

Every experienced builder I have ever spoken to has told me to build light. They always told me that a light plane flies better. And this would seem to make even more sense when it comes to gliders, planes with no motors. The lighter the wing loading, generally the lower the sink rate. Overall, you can float longer and rise on lighter lift with a lighter plane. Of course there are other factors like airfoil and such, but on two identical planes in calm air, the lighter one will generally stay up longer.

increase the wing loading by adding ballast

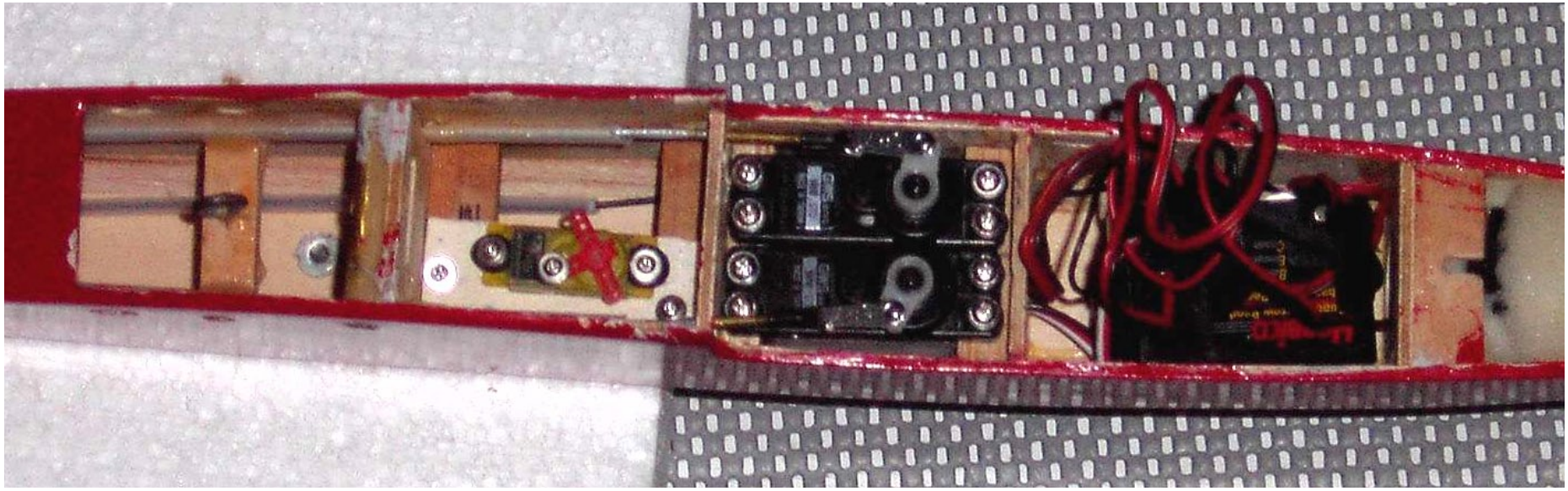
But those light planes become like leaves in the wind when the gusts come up. Low wing loading and very slow flying speed leads to a plane that can not penetrate or that is hard to control or to land. The solution is to add weight.

By adding weight to your glider, what we call ballast, we cause several things to happen. First we increase the wing loading. If your glider weighs 40 ounces and has a wing loading of 8 oz per sq ft, by adding 8 ounces of weight, 20% of the glider's weight, we increase the wing loading by 20%. This will increase the flying speed of the plane allowing it to penetrate into higher speed winds.

I won't go into the math here, but I provide a link to a discussion on this topic. Based on the advice of experts, adding ballast to increase flying speed for better wind penetration will have a smaller impact on altitude than just adding down elevator. You will lose less altitude flying faster with a heavier plane than you will by adding down elevator to a lighter plane in order to gain speed to penetrate into a strong wind.

When we add ballast to a glider we want to maintain the balance of the glider, so we typically add that ballast right over the center of gravity, the CG. This makes the plane heavier, but maintains the balance. And we typically add that ballast weight to the center of the fuselage, which makes the fuselage heavier, compared to the rest of the plane. This creates a damping effect which makes the plane feel more stable, more controllable. Wind gusts hitting the side of the plane seem to push it less and the plane returns to a more stable flight path more quickly with less effort on your part.

So, by adding ballast we gain two benefits. We gain flying speed for wind penetration, and stability to help us deal with the gusts and cross winds.



Sagitta 600 (Ed Anderson photo)

Of course we will also increase the sink rate, but our alternative is to leave the plane on the shelf and cut the lawn. It is a small price to pay for having a more wind worthy plane.

HOW MUCH WEIGHT SHOULD I ADD?

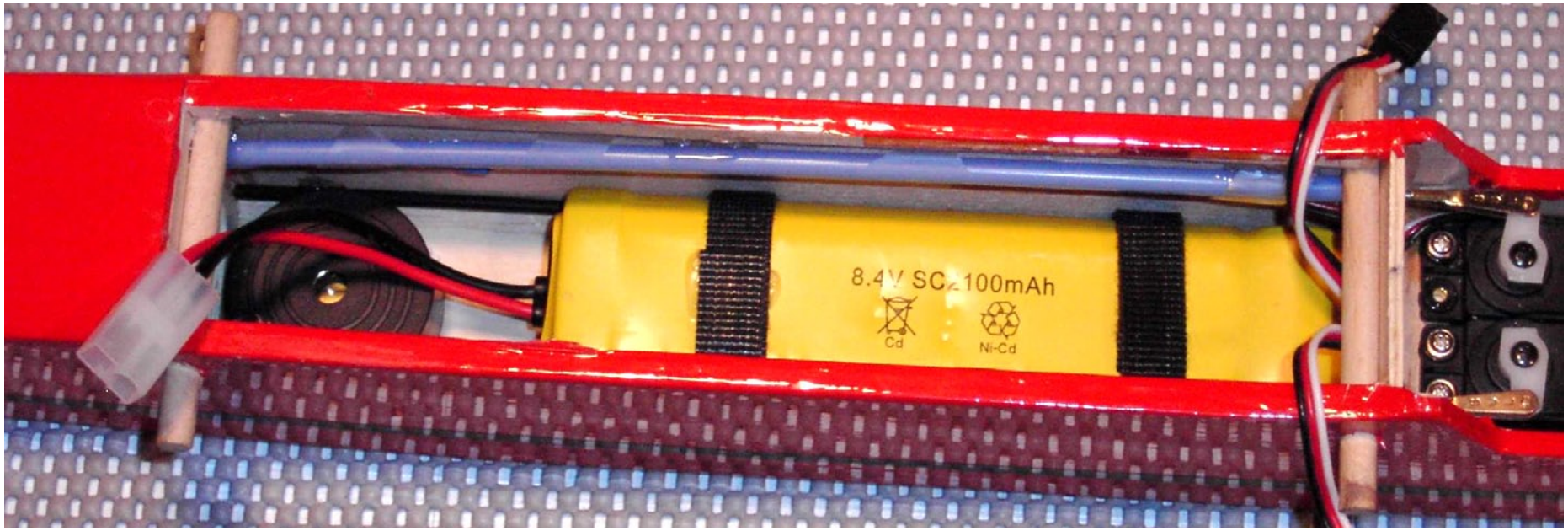
There are all sorts of engineering discussions that can come from the question of how much ballast under what conditions. I won't go into that here. What I will say is that the range of weight you can add is probably more than you think. And the amount you add is very much a personal decision.

I am going to discuss ballast weight as a percentage of the weight of your glider in its ready-to-fly state. So, if your glider normally weights 30 ounces, then adding 10% would be 3 ounces. If it weighs 75 ounces, then 10% would be 7.5 ounces. It is not the actual number of ounces, but the % of the plane's weight that becomes important.

Some people like to shift the CG a little forward for stability when flying in the wind. That, again, is a matter of personal taste. I don't like to do that if I can avoid it as it makes the plane less sensitive to lift. For this discussion we want to keep the balance as you normally have it, we are just going to make the plane heavier.

As it turns out, adding 10% in ballast is not much at all. My suggestion is that you experiment with your glider, flying under your usual conditions. Add 10% and see how it flies. Notice the handling, the flying speed and the landing speed. You will have more energy retention causing the plane to land faster — give yourself some extra room on those first few ballasted flights.

When I first tried this, I had to convince myself that adding 10-20% to my glider's weight would not cause it to drop out



Spirit 2M (Ed Anderson photo)

of the sky. Once I was confident of that, when the wind came up I would add that 10%-20% and found that it made a difference in how much wind I could handle.

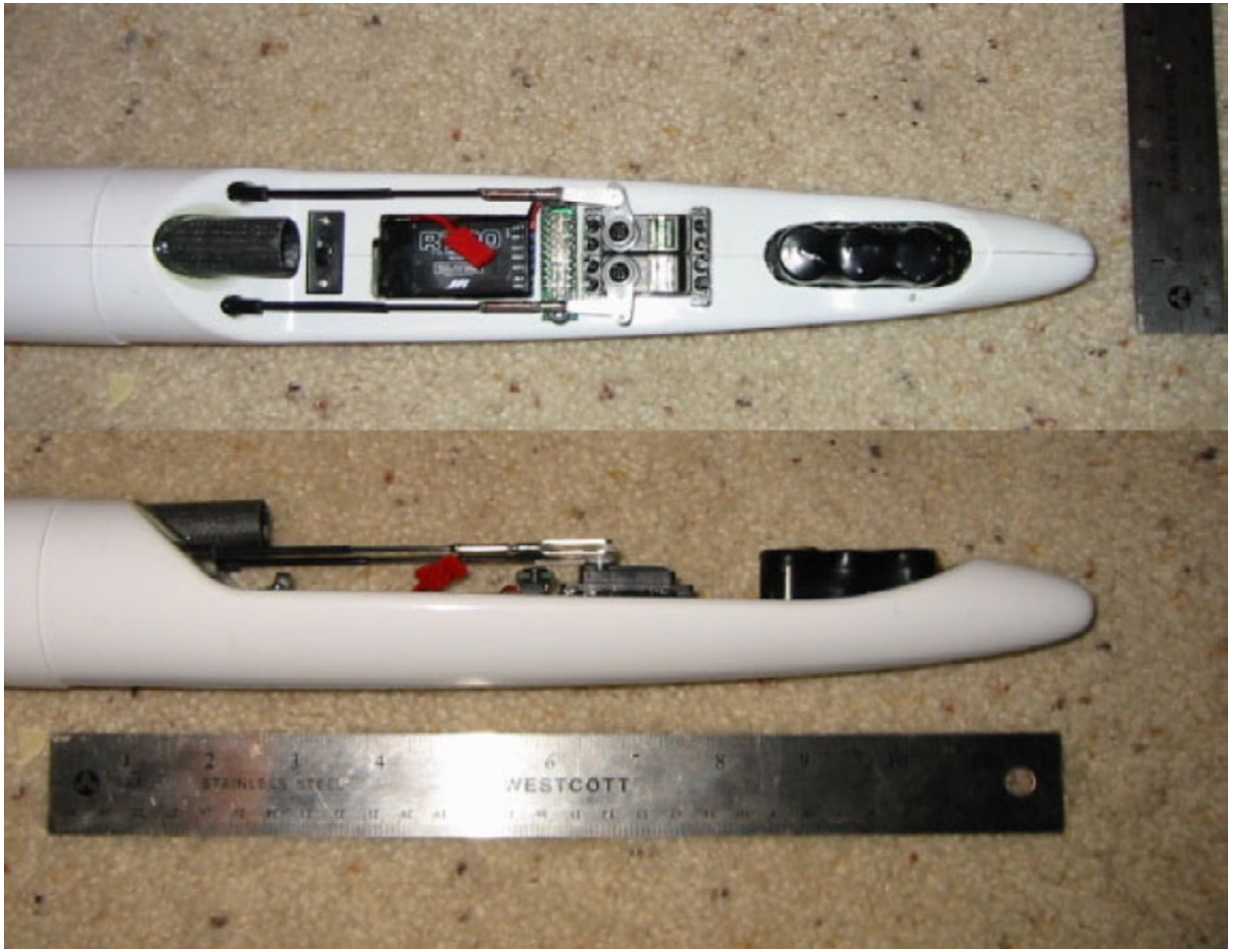
In fact, on all but the most delicate gliders, adding 20% in ballast is quite reasonable. Some contest pilots, flying strong planes, have been known to add 50% or more ballast when flying in strong winds under contest conditions. I would not suggest you jump to that increase right away, but realize that the range of ballast you can add can be quite broad.

LOCK THAT BALLAST DOWN!

Be very careful to add your ballast right on the CG such that you do not upset the balance of the plane. And make very sure it is very well secured. Imagine a 20% weight shift while you are flying. This could make the plane unflyable, so make sure your ballast is very solidly mounted.

On planes with fairly open areas over the CG, a ballast box can be constructed. This is a space that is sized to be directly over the CG and which will hold the ballast securely. Some planes work better with a tube that is fed from the front so ballast can be added or removed without removing the wing. In this approach the heavy metal slugs are added with lightweight spacers so that the weight is right over the CG.

In the picture on the opposite page you see my Sagitta 600 2M glider. I created a box behind the spoiler servo area that can hold about 6 ounces of lead. I have also used coins for this purpose. Each quarter is about .22 ounces, so five quarters is about 1.1 ounces. After I add the weight I stuff foam in there to hold it all still. The box fully contains the



Supra (Donald Lee photo)

weights so they can not move around in the plane.

On the previous page is a photo of my Spirit 2M. If you know the typical Spirit layout you see that I moved the servos forward creating an open area under the wing. There I added Velcro to the floor of the plane as well as straps of Velcro. In the photo you see a large yellow battery pack that weighs 13 ounces or about 1/3 of the unballasted weight of my Spirit. The battery is just there for weight. Most of the time I use something smaller, but if I wanted to fly the Spirit in higher winds, this would let me do it.

I have used lead, battery packs, and similar items that could be solidly secured. I commonly add 6-8 ounces to my 2M planes when the wind gets over 10 mph. I might use 4 ounces under 10 mph if it is very gusty. The plane does not float as well, but it becomes more comfortable to fly so I am less likely to put it away just because a little wind came up. See what works for you.

The pictures to the left are of my Supra. In the photos you can see the ballast tube on the left, sticking out from the fuselage. Into this I can slide weights and slugs in order to ballast the plane. I have a brass ballast set that weighs 35 ounces. I can add as little or as much as I like.

The Supra handles wind pretty well, so I don't even start to ballast till it gets

above 15 mph. The unballasted Supra weighs 64 ounces so as a first shot I might put in about 13 ounces, or 20% of the plane's weight, then work up from there as needed. That 35 ounce ballast pack is about 55% of the plane's weight.

EXPERIMENT

My goal with this article is not to make you a master of ballast but to give you the confidence to experiment. Knowing that adding weight to your glider can actually make it fly better may be a new concept for you. Or you may have heard this but not understood the meaning.

Step up in small increments. A 10% weight increase is not a lot. In fact the damping effect of adding that slug of weight in the center of the plane may be more valuable than any increase in glide speed. It won't hurt your float a lot, but it might just be that little bit of extra stability that lets you keep flying when the wind comes up.

If you tend to shy away from 10 mph winds today, after you have become comfortable with ballasting your glider, you may look at 10 mph winds and feel that it is a good day to fly. If that happens, then I have accomplished my goal of giving you a few more flying days upon which you can enjoy flying gliders.

RESOURCES

This article is based on my personal experience as well as advice I have received from club members. It is also based on extensive reading. Of particular value are discussion topics on the forums. I have included a couple web links to discussions that I think will be helpful in your deeper understanding of this topic.

My goal is to give you the confidence to experiment

Feel free to post questions to these discussions. The participants in the discussion will be happy to help you achieve confidence in the wind.

The threads can be found here:
<http://www.rcgroups.com/forums/showthread.php?t=843256>
<http://www.rcgroups.com/forums/showthread.php?t=780129>

One final note. This discussion has been primarily around pure gliders flown off hi-starts and winches, however the principals of ballasting apply to all model airplanes. Whether you fly pure gliders, hand launched gliders, electric gliders, or even parkflyers, if you want to be able to fly in more wind, try adding a little weight to your plane. You will be amazed by how much better the plane will handle the wind.

THE CAP INDICATOR

I used to say that if it was too windy to keep my cap on my head, then it was too windy to fly. However as I have become more confident with my gliders and more bold with my ballasting, the days when it is too windy to fly are few and far between. The cap criteria still applies, but now I turn it around backwards when it is windy. If the wind can still knock it off my head, maybe I need to add some ballast to the cap.

OTHER RESOURCES

David Register did an excellent, albeit very technical, article in his Technical Topics series called "Get The Lead In." It talks about the effects of increased wing loading. This appeared in the October 2000 issue of *RC Soaring Digest*.

Jim D. Burch explains glide ratio, sink rate, and achieved distance for full size gliders on his "Performance Airspeeds for the Soaring Challenged" web page. He even explains the best way to fly through sink.
<http://home.att.net/~jdburch/polar.htm>

Clear skies and safe flying!

The evolution of a receiver switch

Christo van der Merwe, skylar@mweb.co.za

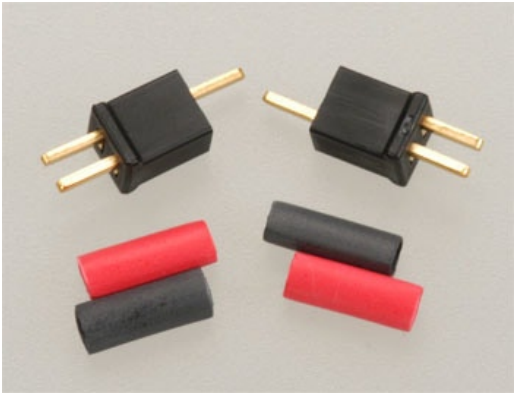
In response to an inquiry as to a source for a switch for an F3K model, Christo van der Merwe suggested using modified Deans micro plugs. Using the Deans plugs has the advantage that there are sliding connections, rather than the simple contact points in the miniature microphone jacks commonly used.

Christo's original suggestion is illustrated below. Very simple, nearly fool-proof in fact, but DO NOT CHARGE THROUGH THIS SWITCH! There is danger of damaging the receiver.

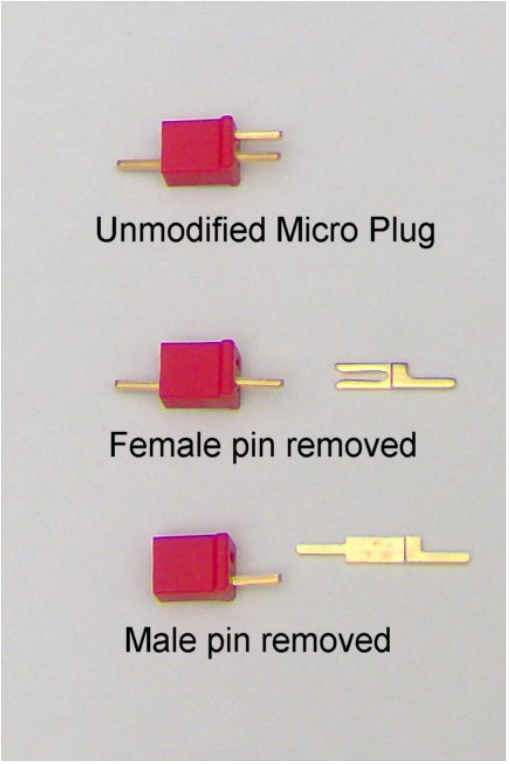
As the micro-plugs are polarized, modify the plugs so that a pin is not sticking out of the fuselage to be easily broken off.

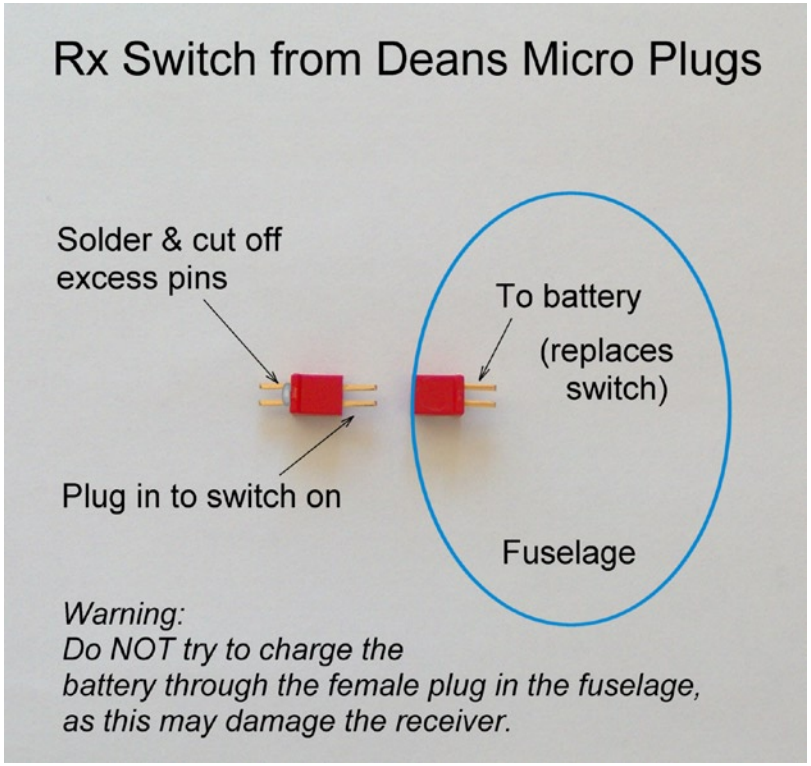
Perform the following steps, illustrated below, to modify the plugs so they are not polarized:

1. Remove the female pin from one plug.
2. Remove the male pin from a second plug.
3. Exchange the removed pins and push them into the plugs.



Deans #1221 (black), 1222 (red)





Within a day or two following his original idea, Christo had come up with a much improved switch, suitable for both turning the receiver on and off with a simple shorted jack, and charging the battery while entirely by-passing the receiver circuitry. This is much much better circuitry.

For this switch/charging jack you'll need two polarized Deans 3-pin plug sets, #1231 (black), #1232 (red), previously #1003, as illustrated below. A package contains one set of plugs (one male and one female), so for this switch-and-charge circuitry you'll need two packages.

Following the diagram on this page, mount one of the female plugs in the fuselage. Bridge the two **outside** pins of one of the male connectors by soldering a bit of wire in place. Connect your battery charger leads to the second male plug. Be careful to solder the correct wires to the correct pins!

In use, the shorted plug connects the positive battery lead to the positive receiver lead. The receiver gets its negative feed directly from the battery pack.

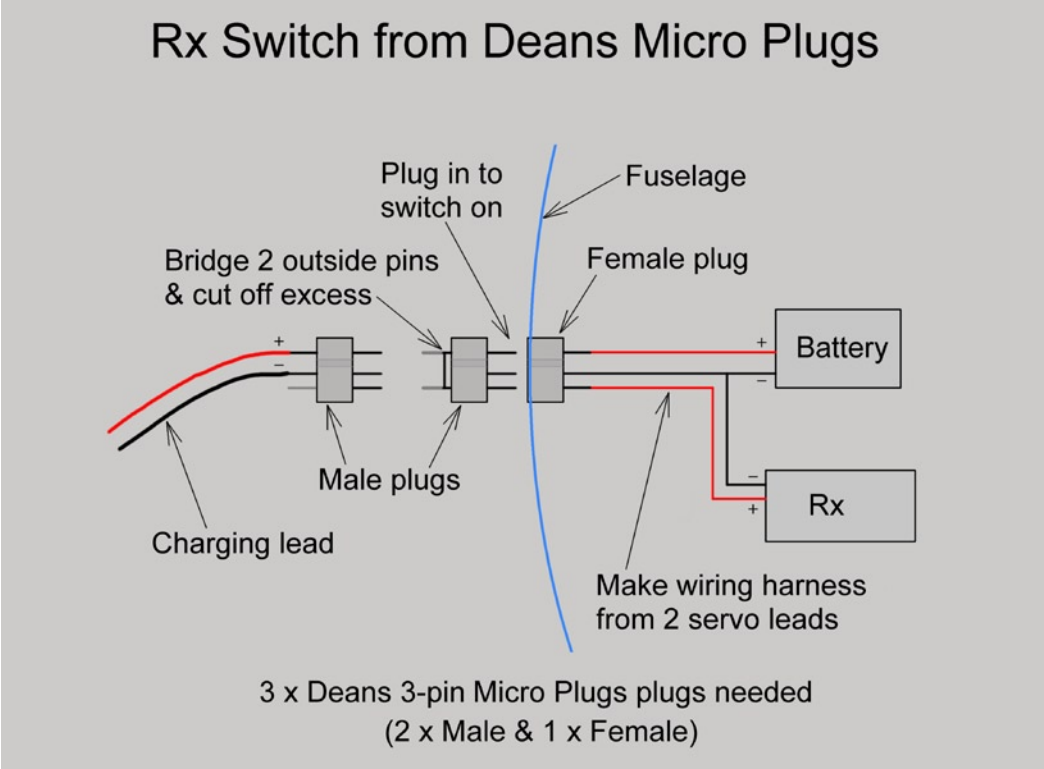
While charging, direct positive and negative connections are made to the battery, and the receiver gets no power at all.

Again, this system has the advantage of sliding contacts and large conductive surfaces in comparison to the miniature microphone jacks commonly in use.

About the only disadvantage of Christo's system for RC-HLG use is the shorted male plug will extend out into the airstream during flight. We are sure some enterprising modeler will figure out a way to recess the plug so it's flush with the fuselage surface.

For small-scale slopers, simply embed the switch in some small detail part held in place with magnets and easily removed to shut oiff the radio gear and allow charging.

Cool ideas, Christo! Thanks!



RD Enterprises

Premier Pilots

The best 1/4 scale pilot figures available for radio control aircraft

Ren DiLeo, rdent4885@sbcglobal.net

Brand new for 2008 after 2-1/2 years in the making, Premier Pilots are now available in one quarter scale. Finally, a highly detailed and lightweight pilot figure is ready for your masterpiece and scale competitions.

Each pilot has a full body. At only 5.5 oz clothed, they are the lightest articulating pilots available. Each pilot body is made from 17 different moulds to enable life-like poses in your aircraft. Premier Pilots are jointed and may be posed to suit your needs.

The shoulders are adjustable in width from 3-3/4" to 4-1/4". The shoes and legs may be removed to fit in limited cockpits. The clothing has been sewn from actual cloth fabric. You may choose from three different color shirts: red, white or blue. All pilots have tan pants, brown belt and brown shoes and are 15" tall. The white shirts and white cap may be dyed to your favorite color.

Included with each pilot are the following accessories: white cap, sunglasses, headset, watch, parachute bag and harness, 4-point harness and seat belts.

Additional items/accessories are available and may be purchased separately: English driving hat, flight suit, leather jacket and helmet, and goggles.

Check the Premier Pilots website <http://www.premierpilots.net> for more pictures and pricing information.

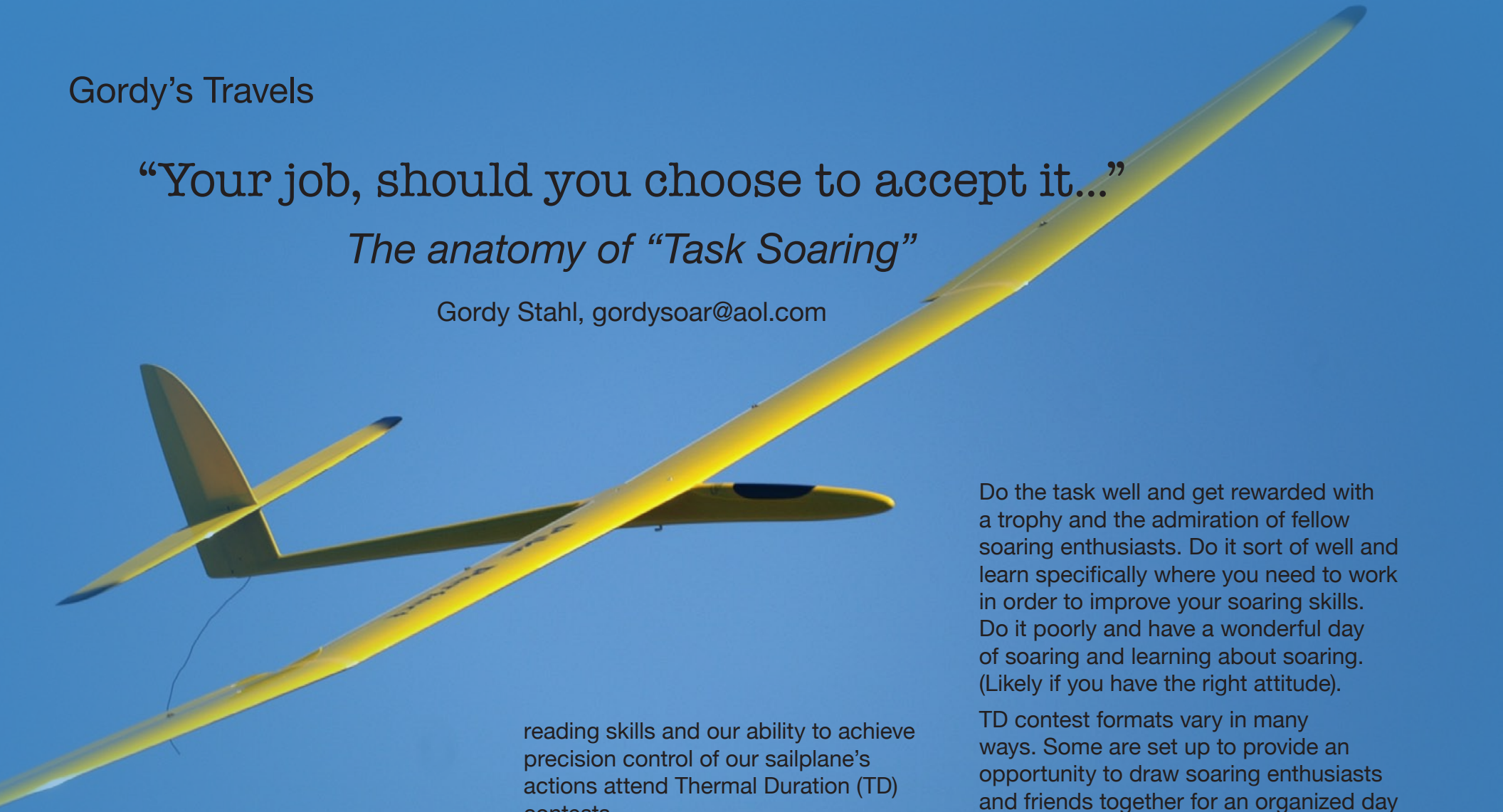
RD Enterprises
4885 Mt. Durban Dr.
San Diego CA 92117 USA

Each Premier Pilot comes with white cap, sunglasses, headset, watch, parachute bag and harness, 4-point harness and seat belts at a price below $100. Individual items are also available separately, ranging from $2 for the wristwatch to $30 for the leather jacket and flying helmet.

"Your job, should you choose to accept it..."

The anatomy of "Task Soaring"

Gordy Stahl, gordysoar@aol.com



Since last season I have been WORKING, not only at my full time job, but at honing my task flying skills. For those of you who don't understand "task soaring"... Those of us who have decided that we want to improve our air reading skills and our ability to achieve precision control of our sailplane's actions attend Thermal Duration (TD) contests.

When we show up at an event, the Contest Director (CD) is the boss, and he assigns the "tasks" for the day of soaring, much like showing up to work and the boss telling you what is expected that day.

Do the task well and get rewarded with a trophy and the admiration of fellow soaring enthusiasts. Do it sort of well and learn specifically where you need to work in order to improve your soaring skills. Do it poorly and have a wonderful day of soaring and learning about soaring. (Likely if you have the right attitude).

TD contest formats vary in many ways. Some are set up to provide an opportunity to draw soaring enthusiasts and friends together for an organized day of soaring... This is usually designated as an "Open Winch" contest. With this format, the CD announces the tasks for the day — say rounds beginning with a 3-minute, 5-minute, 7-minute, and 9-minute flight task and a 50' landing circle.

A piece of nylon tape is anchored in the center of the landing zone with graduations drawn on it to indicate landing points, usually starting at 100 points. The tape can be swung around the circumference until some part of it touches the sailplane's nose. That corresponding number indicates the landing points earned.

Sometimes the CD will call rounds as the entire group of pilots have completed each round. Sometimes the CD will announce that pilots can fly any round at any time, as long as all the rounds are completed by the end of the contest. With this system if you hook a great thermal early you can elect to fly out the 9-minute task, or if you get skunked with a down cycle, you can shoot for the 3-minute task.

The opposite of the Open Winch event is Man On Man (MOM). In this format, groups are randomly assembled for the first task. Usually the task will be 10 minutes. Six winches are used and the pilots launch in a consecutive shotgun release. The idea being that those pilots are a mini contest, with all the pilots in the group flying in the same air. Those pilots get to test their strategy, air reading, and landing skills against the others in that launch group.

If, for instance, the air is all down, and the best score is two minutes, then that pilot would get 1,000 points — same as if he had flown for the 10 minutes. If the next round air is all up and everyone gets their 10 minutes, they would still be measured only against the pilots in that launch group.

MOM erases "luck" from the soaring part of the task... Without MOM, if one group launches in an up cycle and gets 10 minutes and the next group launches in a down cycle, only the first group would have a chance at glory, even though pilots in the second group were far more skilled and practiced. With MOM, this cannot occur.

The standings of each first round flight group are then grouped in the order they finished against pilots who finished in the same order from the other groups. This pits equal pilots against equal pilots (for the most part) all day long. It is easily the fairest variant going. Instead of a newer pilot competing directly against the most experienced pilots, at the end of the day each pilot can see how his practice and experience stacks up against pilots with similar abilities.

Landing tasks can vary based on how many pilots have to move through the event. For instance, if there are 200 pilots at an event, taking time to wait for swinging tapes and then straightening them again can burn up the day. They also vary depending on the mood of the CD! At large events such as the Fall Festival in Visalia, California, where arguably the best of the best come to have fun and to test their skills, "gymnastic" landing targets, say in the shape of Pac Man (who's mouth is a zero and body is 6' diameter), or a shuffle board wedge shape with the apex being 100 points! These landing tasks really test the pilot's ability to control sailplane speed, altitude and timing... but mostly allow for immediate recognition by the landing judge, clearing the landing area quickly.

The most common landing targets are the circle tape (also used in the rest of the world as the official landing task), or the Runway Tape. This is a piece of tape anchored on both ends with the tape being 100 points and every inch away on either side of that tape a loss of a point. Again measured from the tape to the sailplane's nose, usually done with a length of plastic pipe with increments marked along its length.

Task flying is the most fun! Not that just soaring around for a day isn't, but task flying gives soaring a point! The League of Silent Flight (LSF) has an achievement program set up to provide various skill improvement tasks. The LSF levels are all designed to guide an RC sailplane pilot along the skills of RC soaring. The LSF 1 task sets a task of making a small number of fairly generous measured landings, LSF5 is the ultimate achievement, including an eight hour

continuous flight, a multi-mile flight from one point to another along some roads (the pilot launches, gains good altitude, and then climbs into the back of a pickup and flies his sailplane the distance and back!).

Improved skills means more fun and a lot less opportunities to dig your sailplane out of the ground or out a tree!

There are many variations of task soaring: some involve speed, distance, soaring time and landing skills. Regardless of the variant, task flying turns our sailplanes from soaring machines into "tools for a task" and turns soaring into a challenge.

It's NOT about "beating" some other pilots, since that's not possible. The best you can do is to do the task... perfectly. The only person you can beat is yourself... or your last best performance.

Task flying, or flying contests, is really about sharing the challenge and the day with friends of like interests. I started this column mentioning that I had been WORKING over the last couple of years at honing my soaring skills. That means practicing, not just going out and floating around for hours on end, but setting a time goal, flying with a talking countdown stopwatch, and always having a landing spot to attempt to place the nose of my sailplane.

Remember, it's about precision control of your sailplane and finding thermals, or flying smoothly to get exactly the amount of task time — not one second more or less... so aimless soaring and landing prepares you for – aimless soaring.

The result of all that task practice? Consecutive wins or placements in the last 20+ events I have flown! Think it was "fun"? You bet! I didn't "beat" a single friend, but I did manage to get better results and some pretty awesome trophies from Australia, Washington, Tennessee, Ohio, Indiana, Missouri, Texas, Indiana, Canada... a bunch of fun places!

Give task flying a chance, if you haven't been following my columns in the recent past year and a half or so, go back and check them out. There are a lot of tips and secrets to improving your skills and getting your "tool" tuned up for the 'job'.

See you on my next trip!

P.S.: That's my 2.4 GHz whisker-sprouting "World's Heaviest Carbon Supra Lite" on the opposite page. Thanks to my friend Tony Utley for the photo! ■