# Sadi-C-ntr-lled Soaring Digest July 2008 Vol. 25, No. 7

## **July 2008** Vol. 25, No. 7 CONTENT



Front cover: John Luetke's HKM ASW 28 (7.2 m span) in a steep banked turn at the JR/Horizon Aerotow 2008. Photo courtesy of John Luetke, HKM-USA. Canon EOS 300D, ISO 400, f8.0, 1/2000 sec., 180 mm

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#### C.A.C. Standard Class Contest An exciting format and a large number of entries for this contest put on by Club Aeromodelista Ciudadela, El Palomar, Buenos Aires, Argentina. By Daniel Bizzera, with photos by Alfredo Baños and "Papi" Denegri

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Back cover: "I'm bringin' her in, Dad." Josh Glaab Jr. lands his Sovereign during the Tidewater Model Soaring Society Eastern Soaring League Spring Challenge contest on May 17. Photo by Trish Glaab Sony DSC-V3, ISO 100, f8, 1/400 sec.

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### In the Air

Ithin days of this issue going on-line, the US F3J Team will be traveling to Turkey for the World Championships. Two Junior Team members, Brendon Beardsley and Alternate Michael Knight are from our own Seattle Area Soaring Society. We're hoping to receive regular updates from the Team before, during, and after the competition. Good luck, guys!

Speaking of the F3J World Championships, be sure to read Sydney Lenssen's preview of the competition in this issue, starting on page 43. Read carefully, as Sydney has included a contest within this column, and entries are due by the 25th of June!

This issue also includes coverage of a thermal duration contest recently held in Argentina. Hi-starts are used, according to the class rules, rather than winches, and models are limited to rudder, elevator, and spoilers. We think you'll enjoy seeing models — which are a bit different from those usually seen here in the US. The fun and camaraderie definitely show in the photos!

This year has got to be the windiest and wettest we've experienced in our more than 45 years here in the Pacific Northwest. It's for sure put a crimp in our flying. Our Redwing XC has yet to get into the air, and we've managed to finish off our B-11 testbed. Yes, that's right, it's completely built, covered and balanced! Now all we need is for the weather to cooperate.

Time to build another sailplane!

Club Aeromodelista Ciudadela El Palomar, Buenos Aires, Argentina



Daniel Bizzera, daniel\_bizzera@carrefour.com Photos by Alfredo Baños and "Papi" Denegri

Alfredo Baños

## C.A.C. Standard Class Contest

Hello to all the friends of *RC Soaring Digest*!

From the Club Aeromodelista Ciudadela (C.A.C) of El Palomar, Buenos Aires, Argentina, I will report all that happened in the contest of our class standard, realized 18 May, 2008.

To begin, I will tell you that these models, according to the regulation, can have a wingspan between 2 m and 2.59 m, and only three channels for control: elevator, rudder (conventional or "V" tail) and spoiler.

The day appeared very cloudily, with something of wind from the NNW...

The activity in our Club began early, about 9 a.m. Some preparing coffee for the friends, pilots, and collaborators and others, preparing the stakes, centers of landing, and other implements for the airfield.

Approximately at 10 a.m., almost all of the pilots had come and it was begun by the inscription (sign-up) and check of the frequencies.

The quantity of pilot participants was 24, a number that is usual in this category

that has had an exceptional increase in followers, and, together with the category "Minitérmicos" (mini-thermics, up to 1.50 m wingspan). It has been those categories that more pilots entered the last National Championship (realized between 28 April 2008 and 2 May 2008 in our Province of Córdoba), with 52 and 44 pilots respectively.

The pilots for this event were distributed in five rounds of three groups of eight pilots each. One round was discarded, that is to say, the worst flight of the five is eliminated.

This contest emphasizes the good predisposition of all the participants who, if they were not having to fly, were designated as timekeeper or assistants to bring and to accommodate the histart.

How does contest develop?

The pilots arrange in the assigned group, each one with a hi-start composed of 20 m of surgical latex tubing (8 mm external diameter, 5 mm internal) and 70 m of nylon of 0.7 mm diameter and a parachute on the end where the model gets hooked up. Every hi-start is

stretched 60 m and the tension must be between 3.9 and 4.4 kg.

The regulation indicates that every round has a working time of 10 minutes in which the participant can realize two attempts for flight. The last flight overrides the previous.

Once the working time has begun, the pilot (or his assistant), can launch the model with his hi-start.

The time of flight begins when the model frees from the parachute. The idea is to maintain in flight with seven minutes as maximum, and before concluding this time to land as near as possible to a center or base assigned to every pilot. The timekeeper stops his chronometer when the model lands. The pilot is rewarded with one point for every second of flight. The precision of landing delivers extra points:

50 points if he lands within 1 meter of the base and 15 points if he lands inside a radius of 15 m. The intermediate distances have incrementally diminishing values of approximately 2 or 3 points for meter. For example: 47 points for 2 m, 45 points for 3 m, 42 points for 4 m ... etc.





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Alfredo Baños

Therefore, a pilot can obtain 470 points maximum, which corresponds to a flight of seven minutes (420 points), and 50 points extra for landing inside a radius of 1 m, measured from the center of the base to the nose of the model.

The partial calculations are decided by the following means:

Every winner of a group receives 1000 points and the other members are awarded a proportional number of points according to the following formula:

Partial calculation = (1000 x PC) / PG Where:

PC = points of the competitor

PG = points of the winner of the group.

If the pilot flies more than seven minutes, every second of flight extra reduces his raw score (420 minus number of seconds over seven minutes), and if the flight exceeds 7 minutes 30 seconds, the precision of landing is not valid.

The regulation also contemplates some other situations, but I do not want to go into more detail here. You can consult the web site of the "Federación Argentina de Aeromodelismo" (Argentine Aeromodeling Federation, www.faa.org. ar), for more information.

Our contest went smoothly. Everything developed with normality, without incidents, with the exception of two models who "landed" in the trees of the field!

The first three rounds were completed before the luncheon, a moment eagerly awaited by all!! It is the better moment of the contest, where there is demonstrated the fellowship and the friendship of this growing group of pilots. After the excellent *asado*\* to which the C.A.C. has us accustomed, the rounds were resumed.

The 4th round developed almost in the same conditions as those of the morning, but for the 5th, the wind stopped blowing and we flew away in complete calmness.

About 5:30 p.m. the contest had ended. The podium was completed of the following way:

1st: Adrian Bardet 2nd: Ezequiel McGovern 3th: Fernando Mosquera Adrian is an experienced pilot, several times Metropolitan and National champion in different categories.

We are grateful for the demonstrated interest and await the day some of you participate in our contests. You will be really welcome.

You can visit the web pages of our Club at <a href="http://www.cacdelpalomar.com.ar">http://www.cacdelpalomar.com.ar</a>. Regards from Argentina!

\* Asado is a technique for cooking cuts of meat, usually consisting of beef alongside various other meats, cooked on a grill or open fire. Asado a traditional dish of Argentina.









Above: Daniel Scardamaglia Top right: Ready for the window to open. Bottom right: Daniel Miniusi and Daniel Martinez. Photos by "Papi" Denegri.



The ten minute window opens and nearly everyone launches, striving for a seven minute flight. Photo by "Papi" Denegri.





Above: David Fridman (blue cap) readies to time for Ezequiel McGovern. Rubin Penazino (white cap) is all ready to launch.

Above Right: Alejandro Salio talks with Franco Capuani
Right: David Freeman gets some advice from his timer.

Photos by "Papi" Denegri.





Left: Felipe Vacillio carries Alfredo Baños' glider back from the flight line. Alejandro Galan, on the right, walks with them.

Below: Daniel Scardanaglia's ready to fly. Below left: Working out the scores.

Photos by "Papi" Denegri.





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Left: Launching into the coming sunset.

Below left and below: Daniel Martinez, pilot, with Alejandro Salio timing.

All photos this page by "Papi" Denegri.









#### Club Aeromodelista Ciudadela (C.A.C) STD - 18 May 2008

Place Pilot			Resultados						
1	001 - BARDET, ADRIAN	1000	1000	1000	1000	613	(D)	4000	
2	025 - MCGOVERN, EZEQUIEL	552	(D)	996	1000	1000	735	3731	
3	019 - MOSQUERA, FERNANDO	725	(D)	1000	746	1000	789	3535	
4	031 - BÄOS, ALFREDO DANIEL	467	(D)	1000	599	891	1000	3490	
5	029 - VILLAMAYOR, HERNAN	803	861	965	379	(D)	784	3413	
6	017 - GUINI, ALEJANDRO	476	(D)	658	940	966	784	3348	
7	036 - FRIDMAN, DAVID	644	993	950	327	(D)	759	3346	
8	030 - GALAN, ALEJANDRO	0	(D)	707	980	638	1000	3325	
9	040 - MINIUSSI, DANIEL	786	860	892	765	496	(D)	3303	
10	037 - BERNASCONI, PIPO	797	904	673	845	554	(D)	3219	
11	015 - SCARDAMAGLIA, DANIEL	774	819	447	(D)	697	885	3175	
12	007 - VADILLO, FELIPE	1000	568	(D)	799	630	720	3149	
13	039 - EZCURRA, WALTER	839	636	845	799	507	(D)	3119	
14	027 - BARDET, MARIANO	544	996	856	360	(D)	640	3036	
15	041 - MARTI, PABLO	686	636	969	733	446	(D)	3024	
16	023 - CAPUANI, FRANCO	1000	62	(D)	1000	257	582	2839	
17	026 - FERNANDEZ, FABIAN	459	(D)	547	863	502	906	2818	
18	032 - MARTINEZ, DANIEL	617	491	(D)	638	516	1000	2771	
19	018 - PENACINO, RUBEN	581	638	415	578	295	(D)	2212	
20	009 - BIZZERA, DANIEL	360	(D)	582	442	527	410	1961	
21	042 - GILLIO, NESTOR	547	113	856	0	(D)	0	1516	
22	035 - SALIO, ALEJANDRO	203	78	(D)	214	132	417	966	
23	010 - QUIROZ, GUSTAVO	586	0	(D)	0	0	0	586	
24	038 - DENEGRI, JORGE	0	(D)	0	0	0	0	0	

Alfredo Baños



## JR/Horizon Aerotow 2008

by Gordy Stahl, gordysoar@aol.com Photos by John Luetke, Mark Nankivil, and Gordy Stahl

Monticello, III

y travels had me passing close by the site this past weekend (5/30-5/31) so I decided to stop in and see what the attraction was to those HUGE wing span sailplanes.

I learned a great deal, but mostly that I knew or understood absolutely nothing about this part of our hobby.

The models range from 100" to 30'! But mostly in the five and six meter span range... big.

There are basically two groups who attend Aerotows... the guys who build and fly the classic scale planes, Minimoas, Schweitzers, Blaniks, etc. These planes have a lot of character and so do their pilots. They are very much into having fun with their models, and it's not unusual to have the model pilot head rotate with the rudder movement in the canopies of these birds.

The "glass slipper" ships can seem kind of sterile and generic to all those

but their pilots. The construction and materials of these birds goes way beyond "looks." Scale is what they are about and their designer's and owner's interests. So things like wing flex and flight to exactly emulate the full size birds is very important. Assembly of the wings and surfaces, how the wheel retracts, and even the canopy hatch and hinges reflect the full size airframes.

The site itself is a full size glider club field, so it has golf course quality runways in two directions and a flyable view of the horizon in about 75% of the directions. Rollout on tow was as smooth as a cue ball on a pool table.

The Horizon Team works, and I do mean WORK! All day long, all weekend long. Aside from frequency control and registration, the three tow planes are serviced, fueled and inspected constantly, and the tug pilots shift piloting on a regular basis to insure fresh thumbs and clear heads, as well as tugs that won't let a sailplane pilot down on a

tow. I'd be surprised if there are other tow plane pilots with the JR Team experience and skills — easily the most tow talent ever assembled in the world.

Tow pilots include TD contest pilots Craig Greening, John Diniz, Peter Goldsmith and Johnny Berlin, and a few others, too.

So what did I learn about aero-tow sailplaning that I never would have guessed?

While these planes have huge spans, the glass slipper ships (the sleek, composite high performance white ships) tend to disappear well before the tow plane does. Probably need to admit that while there was blue sky, the humidity made for hazy visibility at about 1,000', approximately TD winch launch height, and these ships are towed to about double that height!

Most of the piloting is done with the sound of a Vario (Picolario, a device that reports a rising tone for up and declining tone for falling air as well as





a very accurate altitude report, and the occasional glimpse of the model.

Time for one more disclaimer. I do NOT fly these ships, but I suspect that the pilots are actually seeing their models to fly them. The vario device does play an integral part of the piloting, same as in the full size versions of these sailplanes.

These models don't get flown but a couple of times per year (there are only a few spots around the country where the club aerotows weekly) so it's difficult for the pilots to really get the "feel" for their models. Wind gusts and field turbulence really gave a few pilots fits on approaches.

The tugs are huge too, with 100cc gasoline engines about as loud as big chain saws. A chain saw with that size engine would likely have a 30" to 40" bar! Their sophisticated electronic ignitions, coupled with 24" props, make them purr, and starting is done with a flick of the prop.

The tug pilots were ALL amazing! Immediately diving back to the runway at speeds that would be scaled up to double the legal speeds of their full size counterparts, to a snap final turn just short of the runway, each time stopping with the tow line end almost exactly on the same spot as the last and ready to be hooked to the nose of the next sailplane in the cue.

Friday was an unofficial flying day, with lots of tows going all day and some serious altitudes recorded (4000' +). I wasn't there, but by all accounts it was a great day of aerotow soaring.

Saturday was facing the storm front that brought multiple tornados just West, so it was a blow out. However, the great thing about this location is the close-by access to an air and train museum, and plenty to do just a half hour away in Champaign. There were a few ouches and darn-its, but for the most part all went home safe and sound, ready to fly again.

Horizon is behind aerotow 100%, as they are with Thermal Duration contest support around the country. In fact they not only sponsor many sailplane events around the country, they are currently constructing their own flying site a few towns away from the Monticello site.

JR/Horizon/Spektrum 2.4 radio systems have made events like this one far more pilot friendly. Pilots can work on, and flight check their sailplanes without concern for frequency conflicts. This is one less thing that might cause a flight prep mistake, and overall a huge time savings in the context of the time spent by officials and pilots over the "channel" system days.

Wish you all could have been there with me!

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Lunak photos by Mark Nankivil.





A beautiful Nimbus 4 over the threshold.

A well detailed ASK-18.

Mario Scolari's mega-big DG1000 (44%). This model spans 8.9 m and weighs 78 lbs.

All photos this page by Mark Nankivil.





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Bob "C

Bob "Can Man" Herold from Wisconsin and his DAW Ka-6 "Orange Crush."









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John Luetke of HKM-USA and his beautiful ASW 28.

This 7.2 m span model is also displayed on the cover of this issue.

Photos courtesy of John Luetke/HKM-USA



A couple of the several JR tow planes.

On the right is Peter Goldsmith with his own-design Piper Pawnee.

Photos by Mark Nankivil.





Jack Nankivil gives his sign of approval after inspecting a couple of the JR tugs.

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Pilots make the model!

Opposite page: A white hatted pilot looks to the left as his Ventus 2c comes over the runway.

Above: Open cockpit gliders like this Slingsby Type 6 "Kirby Kite" always deserve a realistic pilot and instrument panel.

Right: All strapped in and ready to rock-and-roll!







Left: The L213A Blanik is available in 1:3 scale from SoaringUSA.com.

Below: An ASK 21. Its full size D-3254 counterpart is based at Rhönflug Poppenhausen Germany.



Opposite page: Mario Scolari's huge DG1000 with "acro tips" flies overhead.

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Opposite page: "Barbie" brings in her Ventus.

Left: Close-up of the Ventus 2c pilot (see page 30) still looking left.

Mark Nankivil



Dan Troxell's ASW28 comes in for a smooth landing.

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Opposite page: RC Soaring Digest's Gordy Stahl poses with Dan's model (photo courtesy of Gordy Stahl) and Dan gets some assistance in getting his 'ship ready for another tow.











Mario Scolari's spectacular Paritech 44% DG-1000 with AFT25XS "up-and-go" unit. The single bladed prop allows for easy slide-in retraction of the power pylon through a small doored opening. Photos on opposite page by Mark Nankivil, this page by Gordy Stahl.



July 2008



Mark Nankivil



Opposite page: ASK-18 on tow.



# Uncle Sydney's Gossip Column ACCOPEZON beckons F3J would-be world champions

by Sydney Lenssen, sydney.lenssen@ntlworld.com

June 13 2008

In two weeks F3J pilots from around the world will meet to find the next world champion, this year held for the first time in Asia - to narrow it down, in Adapazari, Turkey, about 150 km east of Istanbul.

How the ten years have passed in a flash since the first F3J world champs in Upton upon Severn, England. How two or three significant shifts in F3J glider design have raised model standards to levels which would have been scarcely imagined at Upton. How pilots from continents around the world have honed their skills in thermal reading, high speed launching and accurate landings on the dot to make this simple form of model competition more demanding and unforgiving than any other.

So what's in store? Which teams and pilots will climb the podium after six

days of contest flying on 5 July? Before reviewing prospects and guessing results, first let's look at how and why Turkey has been chosen to host the sixth F3J world champs.

I first met Team Turkey at Lappeenranta in Finland in the summer of 2002. Semin Kiziltoprak was "team mother" looking after every need of the Istanbul Soarists. She also saved my bacon by letting the UK team use their van after we'd tried for two days to rent our own! Team Turkey was flying at an FAI F3J championship for the first time, and already their friendship was there for all to share.

The real story of Turkey's model soaring enthusiasm started a year earlier.

Mustafa Koc and some friends were visiting Dusseldorf for an exhibition - looking at boats? He had heard of the HKM Sharon Pro and its success on the contest circuit. So he decided to visit

Willi Helpenstein in his Odenkirchen shop, near Monchen Gladbach, 40 km away.

In the shop he asked: these are good F3J models, but how good? Willi closed the shop, took them to his local flying club, and spent the afternoon demonstrating just how good. The Turks took an unknown number of models back with them in the plane, and others followed soon after. Willi took a trip to Istanbul and the Soarists became Sharon pilots.

The Turks were ambitious. Mustafa contacted Philip Kolb, nursing a broken leg at the time, asking for details of his Sharon Pro set-up. Give me your e-mail address and you'll have all the data tomorrow. "No, no that's not what we need. Which airport do you fly from? Come out here and show the club how to do it!"



Serdar Sualp - "Memory-Man"

Philip's first vsit to Istanbul was in March 2002, for a long weekend flying at Riva, everyone keen to gain greater skills in what had become an addiction - F3J thermal soaring. He remembers a crowded city, a lot of people taking wonderful care to make him feel at home, and a serious determination to do well in this new sport.

Five months later, in Lappeenranta F3J WC 2002, Team Turkey came last.

Disheartened? Not at all. They went on to organise the first Istanbul Open, they gained Contest Eurotour status, they turned up in force ever more regularly at Eurotour contests, they showed the world how to attract wide sponsorship and to run contests with unrivalled enthusiasm, facilities and entertainment. They appointed Thomas Rossner as team coach for Canada in 2004, and at Red Deer amazed soarers worldwide -

including themselves - placing second in the team championships.

Contest success alone is not what endears all pilots and visitors to Soarist hospitality. It's the effort and determination of all the hosts, timekeepers, caterers, officials, helpers, family supporters and not least toilet cleaners, to ensure that everybody has fun. They create a magical world of F3J friendship and "F3Food." They fully deserve to host F3J's premier event.

## Contest director and supremo - Serdar Sualp

Serdar has been an integral part of the Soarists since day one, and to this day I do not know if he flies model aeroplanes. But he does fly, all over the world as part of his job. As we all left Adapazari in April this year, tired and satisfied after one of the most exciting flyoffs I have ever witnessed and a demanding Eurotour contest, Serdar rushed away to catch a plane to China. It is not all play!

One thing you will quickly recognise, if you don't know him already. He has a memory of an elephant. Mention your name once and it's fixed in his mind. He is the driving force behind the competition computer systems. A fair contest is safe in his hands and he'll always be there with a smile, help and a strict but sympathetic attitude.

Serdar will be helped by Alex Wunscheim as flightline manager, one of the driving forces behind hand launch gliders worldwide and former F3K Contest-Eurotour manager, occasional F3J flyer and friend of the Soarists. Other vital helpers can be seen on the WC website. Official FAI Jury 2008 will be led as usual by Tomas Bartovsky, helped by Raymond Pavan from Luxembourg and freeflight fan Gerhard Wobbeking from Hamburg, F3J juryman for the second time after Osijek and a CIAM vice-president.

We're promised a host of innovations, scoring systems, videos and weather forecasts. There's a threat to hold a football tournament after hours, and by that time the UEFA European Football Championships will be over. Which F3Football team will triumph at international level?

#### National teams who's who

How to list the national teams? Previous Gossip columns have used alphabetical order or registration date order. This time it's random order and you, dear reader, must search for your favourites.

We should start with hosts Turkey. No surprise to find team manager Serdar "Gentle Giant" Cumbus leading pilots Mustafa Koc, Murat Esibatir and Dr. Ilgaz Kalaycioglu forming the senior team as they have done for the last six years. Make no mistake, today it's not as easy as in previous years to gain a team place

with more than 20 pilots challenging in the qualifications. But the three are on hot form, Mustafa and Murat forging neck and neck in the Euroleague, and the doctor making the flyoff in the home Eurotour and in Italy. The trio should also benefit from the canny eyes of flight coach Larry Jolly, the man with an endless stream of jokes to tell, tailored for every occasion.

Turkey also has three juniors, Diren Ustundag, Ali Ersu and Esra Koc, all them coming on leaps and bounds and in with good chances. It's another tribute to the Soarists that they can field a full junior team when so many long established F3J countries, particularly UK, find it almost impossible to persuade juniors to fly at all. As hosts, all the pressure will be on Team Turkey. Of course, like everyone, they want success, at the same time they will want to be welcoming. If you are neutral, then wish them luck.

Next out of the hat comes Switzerland, and no strangers in the team with TM Ernesto Weber looking after Koni Oetiker, Rudi Baumgartner and Reto Baumgartner, with probably the best tow-team of the champs. Koni started the season well with second place in Turkey, a flyoff place in Belgium, just a foretaste of what he hopes for July.

Taking population and number of F3J pilots into account, Israel fields a team which usually scores far better than you'd

expect. Eldad Manheim will combine pilot and TM with Uri de-Swaan and Arik Meir making the seniors. For the first time they will have full compliment for juniors, Yair Lange, Elad Mazor and Tom Dagon, all wild cards ready to make their mark, and if the winds blow, they could surprise everyone.

Holding the world champs in early July has caused a few problems, particularly for Italy where high school and university exams clash with hobby hopes. Giuseppe Generali, oft described as Italian F3J boss, has a host of family and work problems and hands over TM duties to Francesco Meschia. Marco Generali is another victim due to his engineering studies, always with a shy smile and buried in his laptop studying at every spare moment at many contests.

Filippo Gallizia who is now 18 has his final high school exams and might not make it, in which case his father Giuseppe will. Amazingly the Gallizia family makes up the entire Italian junior team, Marco aged 9, Carlo aged 14 and Giovanni eldest at 16 years old! Italian F3J flyers have probably improved most over recent years, keenly competitive and noisily shouting on the flightlines. Expect seniors in blue Marco Salvigni, Massimo Verardi and Fillippo or Giuseppe to get close to top place.

The Russians turned up in force at Adapazari in April, relishing the chance

to test the field and eager to crash a few models in the process. It is so good to see the enthusiasm but so difficult to talk over the language barrier.

Some of the pilots flew longer in time and distance from their home towns in Russia to Moscow than the flight from Moscow to Istanbul. They are keen. Again a full team of seniors and juniors is led by the looming serious-faced TM Alexey Schegolev, seniors Ildar Sultanov, Dmitry Statkevich and Andrey Volikov, and juniors Dmitry Gashnev, Vladislav Frunze and Mikhail Lobov. Fingers crossed for them all.

Ukraine is a country which has been into F3J since the beginning, and TM Vladimir Gavrylko continues to be a leading light in competitive gliders and one of the world's significant producers. His association with Barry of Kennedy Composites and Dr. Mark Drela has made the Supra probably the most popular F3J model in the USA and Blaster 2 ranks second to none internationally in commercially produced HLGs.

Ukraine's seniors are Vladimir Makarov, Alexander Petrenko and Dmyrto Kharlamov, probably the most youthful of the senior teams. The junior team has Vladimir's son Jury again together with Alex Sakhno and Alexander Chekh. Sooner or later Ukraine will make the podium and perhaps this is the year for that!

Michelle and Craig Goodrum from South Africa have already tasted the delights of the Adapazari sodfarm, travelling last October for the championship of champions, a pretty damp experience after all those thousands of airmiles. And they left "the little one" behind which upset me! July must be better, and in fact might be hotter than home.

RSA TM will be Lionel Brink who cut his teeth towing in Martin 2006, and the Goodrums will be joined by Chris Adrian. Junior team, bursting with confidence, will be Conrad Klintworth, Simon Tladi and Ryan Nelson. Conrad took second place in the F3J national qualification, only beaten by Craig, and he will still be eligible for 2010 Junior champs. Junior TM will be lan Lessem who flew as a junior in Finland and Ryan's dad, "cocky chirper" Simon will be towing mightily.

Brazil also needs to travel far but they bring a sparkle and colourful shirts to every championship they attend.

Combining TM and pilot is Marion Luz and the senior team is completed by Marco A Silveira Fracao and Mauro Lopes. There are eight travelling from Brazil but no juniors. I find it difficult to track form down there and can only wish them well in Turkey.

The Czech team is the first to be managed by a woman, and Eurotour

watchers will have noticed that Jana Vostrelova is flying more than ever with improving results every contest. Jana of course is the English voice of Samba and will have F3J fans around the world rooting for her senior and junior teams. And the Norway team is also hoping she'll give a hand.

Brother Jaroslav Vostrel is in the senior team along with former world champion and guitar-toting Jan Kohout and Jiri Duchan. Junior team is Tomas Kadlec, Jan Leiner and Jakub Lzicar. Then Jana's brother Vlastimil will lead a team of seven helpers to give full backing.

I'm sad to see that Jaroslav Tupec, one of the Czech Republic's most successful pilots, is not listed. He has threatened to retire from contest flying for several years and at the end of last year he sent me his FAI licence as confirmation of his decision. We shall miss you, and also hope you change your mind.

Australia has a heavyweight team, bolstered by twice-winning and reigning world champion David Hobby. You have to ask - can he do it again? - but that should wait for later. The three seniors are Gregg Voak, Theo Arvanitakis and Michael O'Reilly and it is pleasing to see Theo as a pilot this time rather than spotter-in-chief or mighty towman.

The team is completed by one junior Michael Abraham and three helpers. I shall miss Carl Strautens who



David Hobby, twice world F3J champion, and can he do it again? The Adapazari podium will be stronger, just in case!

unexpectedly missed a team place and the Pettigrews who support the Aussies around the world but won't this time due to changed cruise plans.

Recent years has seen an F3J resurgence in France with more than 70 pilots competing for the team each year, boosting support for the Jura Eurotour, now second in numbers to Hollandglide, and the smiling cheer of Luc Bocquet as TM. Four qualifying rounds are flown to pick the team and at the end of the third, nine pilots could have made the final three.

This year's team is completely different from last year's Eurochamps in Trnava, Lionel Fournier from Burgundy Jura, Olivier Finck from Grenoble who competed in Corfu 2000 and Holic in 2001, and Philippe Daumas from Clermont-Ferrand in the Auvergne, the beautiful mountains which I last visited on the way to see the Millau Viaduct, one of the newest "wonders of the world." Philippe is one of that rare breed who designs, builds and flies his own gliders and with best hopes for success, I look forward to seeing the valid proof of this approach.

Both North American teams, Canada and the US have had significant personnel swaps in the run up to Turkey. Jim Monaco who was the tough TM in Martin replaces Larry Jolly for the US and Canada will not field Arend Borst for the first time at a world champs, although he and his son were originally due to compete. Both teams got together in May for a final practice in Denver in the Rockies. Was it ominous that Daryl Perkins won the day?

I should also be surprised if any national group other than the hosts will be larger than Team USA. They have seven pilots because Cody Remington returns in his own right as the current junior world champ, this time in the seniors, flying his Espada and in "deadly form" I am reliably informed. On top of that, they have six helpers including Phil Barnes (and his dlg?) and 12 travelling supporters. The Americans set an ambitious target of raising \$30,000 in sponsorship to help team costs and at time of writing, they have 80% in the bag! That's good to see.

Senior team will be Daryl Perkins, eager to win an F3J crown to go with his four F3B successes. My old friend Ben Clerx is back on circuit and he's had a taste of Adapazari in April already. Finally Richard Burnoski who hails from Chicago where you don't fly too often over winter months, but he's been making up since then whenever the weather allows.

Juniors come from various parts of the country, Jeffery Walter, AJ McGowan and Brendon Beardsley, all eager to show their talents. They won't have spotting from Joe Wurts this time with his wily

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Daryl Perkins at the Rockies team practice day. Can he switch classes and do it again? (Note Larry Jolly, transmitter in hand, in the background!) Photo by of Phil Jones

reading of air, for he will be TM for New Zealand.

In contrast, Canada has only four people notified in their party, but hopefully a few more will turn up. Kevin Hanson is TM and his three senior pilots are Joseph Fitz-James, David Webb and Simon Thompson. I understand that only seven pilots turned up for the team selection competition - the distances involved are huge - and due to later squabbles over procedures, three pilots expecting to travel to Turkey changed their minds. That's sad. Canadians nearly always punch above their weight, so wait and see!

Bulgaria is home to NAN Models who I reckon manufacture by far the largest number of moulded models in the world these days, competitively priced in a climate which has seen cost of composites soar. This year the new Xplorer has emerged to follow up the Shadow, Xperience Pro and Vision, all still capable of wins. The latest model in the series has been helped by Primoz Rizner from Slovenia in concept and testing, he leads the current Euroleague and won in Adapazari while the model was still being trimmed!

NAN boss Nikolay Nikolov is a helper for the team as usual and their most experienced pilot Sotir Lazarkov is TM as well as pilot. Senior team is made up by Valentin Valchev and Konstantin Ranov.



Nikolay Nikolov, F3J's prolific builder from Bulgaria

Junior pilots are probably the youngest in the field, with Georgy Dimitrov, Filip Stamenkov and Delyan Todorov. I expect Bulgarian models and perhaps one or more pilots to reach the podium.

World and Euro champs would not be the same without the jaunty language from Finland of Janne Savolainen, sometimes turning up all alone. This time he might not need help because he is joined in senior by Tuomo Kokkonen and Teemu Ranta, Teemu also doubling up as junior pilot. Pauli Ranta will be a helper. I wish TM and our Finnish friends best of luck, and hope Janne has fully trimmed and tested his models!

Karl "The Hat" Hinsch is TM for the first time leading the German team, as formidable as ever, with a reputation for winning big events, even football. Seniors are Benedikt Feigl who this year replaces brother Sebastian, Philip Kolb who is now resident in Istanbul and speaks "restaurantese" with gourmet skills, and Tobi Lammlein, ex-junior world champ who will combine senior pilot with junior TM role, which his father Stephan filled so well previously. Dad will take it more easily this time as helper and towman.

Junior team is made up with two brothers, Christian and Manuel Reinecke and Johannes Weber, and they will be backed by helpers Michael Clauss, Sebastian Feigl, Peter Nelles, Jurgen Reinecke, Benjamin Rodax and Michael

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Weber. (Where oh where is Utz?! Who will finish the beer?)

Croatia always features large at championships and this year is led by TM Damir Kosir. First pilot to mention is junior Arijan Hucaljuk who has a remarkable record of wins and for the past two years has been his country's top pilot. He is joined by Marijan Balasko a newcomer. No third junior pilot because the selectors do not consider anyone worthy of WC status.

Seniors are Antun Sikic who was one of the organisers in Osijek 2005 and qualifies as pilot for the first time, Damir Kmoch who has flown in the national team ten times previously and Sasa Pecinar another experienced pilot at Euroleague and championship level.

Long time friend Jos Kleuskens is TM for Netherlands. Junior pilot, the ever-smiling Lesley van der Laan, is all set to follow last year's success as junior champion of Europe to greater heights this time. If anyone can, it should be him, cool as a cucumber on the sticks. Senior team for Holland is Cor de Jong, Egbert Fokke van der Laan and Rob Sanders and they travel with an experienced group of five helpers including two more van der Laans.

A man who flew in April from Norway to practice in Adapazari is the ubiquitous Jo Grini - he won't know what that means either. He is TM and senior pilot with

Alf Erik Ross flying in his second world champs and Tor Midtlund at his third. Jo has been gaining high scores this year and needs to keep his nerve this time.

Japan has only registered four people so far, led by Yoshihiro Kurita and senior pilots Hitomi Iwata, Masahide Yoshida and Hitoshi Ohtaka. Sad to see that Shuhei Okamoto does not look likely and I hope that the others continue the tradition of showing off their super simple mini-DLGs. Japan has very strong trade links with Turkey and the week will strengthen the F3J links, too.

Ask me to name a team I'm looking forward to seeing most, it would have to be New Zealand. First, I was in the NZ team by fluke at Upton ten years ago; second, Sven Zaalberg, a personal friend who flew for UK in Canada, is now back in his native country with Air New Zealand and will be in the senior team; third, I want to witness the influence exworld champ and new Kiwi Joe Wurts can bring to the team as team manager. Two other seniors are Les Stockley and Scott Chisholm, with Paul Chisholm coming as helper. Will they provide the big shocks?

Ask me to name the hardest job at the champs, and that is trying to understand Romanian at registration, but this team is delightful and ever improving, Team manager again is Serban Cristinel and he combines that with senior pilot. Other

seniors are Janos Arpad Gocsman and Catalin Milea. They have one junior, S Norbertcarlat, together with a band of eight helpers.

Full teams of seniors and juniors from Slovenia as always, and this year confidence must be high. Pavel Prhavc is TM and Primoz Prhavc is pilot with Bojan Gergic and Primoz Rizner, who is setting the pace in this year's Euroleague. Juniors have Jure Marc, Robert Ratajc and Metod Meolic and both teams have five dedicated helpers. No rivals should underestimate their determination this year.

Perhaps one other team will be just as determined, Slovakia, led again by maestro Jaro Muller, true father of the moulded model gliders, still setting standards on quality of finish. His strong senior team, all long experienced, is Juraj Bartek, Juraj Adamek together with Jan Ivancik. Juniors are Jan Littva, Matej Gorok and Daniel Demecko. Four helpers make up the party.

Last, we hope not least, is team United Kingdom which has also been fraught with the last minute withdrawal of a senior pilot and two helpers, who should be named and shamed, but not by me. Colin Lucas is TM and would not miss a trip to Turkey without crying into his yellow boots.

His senior team is Adrian Lee, veteran of many champs and set to fly his faithful

Soaring Digest

red and blue Graphites, with a Supra in reserve waiting for somebody to learn how to launch it. Brian Johnson is rushing to build and test new models, confident he can show his best form this time at Adapazari. Substitute pilot is lan Duff, flying for the first time at this level, but undaunted and in form, winning at Aldershot last weekend. Helpers are Jon Stanswood and Brian's brother Les, plus Uncle tagging along if required.

Outstanding national teams who do not appear to be making this year's championship are Poland who I believe will be hosting the next Eurochamps, Lithuania who had become regulars recently, Belgium for some unexplained to date reason, and Austria who seem to have dropped flat field soaring, and who can blame them with such enticing Alpine alternatives. But we shall miss you!

#### Who are hot favourites?

This Gossip column has been shouting the odds over recent years, and I'm told that the guesses are the prime reason anyone bothers to read the column. Previous years it has seemed easy to check on form, but this year there seemed too many pilots who look likely to reach the flyoffs.

Obvious guide of course is progress in the Contest Euroleague. This time last year, Philip Kolb was running away from his rivals and had already won for the umpteenth time. Not so this year. With half the year still to go, F3J Euroleader is Primoz Rizner from Slovenia with three scores above 100 but no perfect score of 103 as yet. Philip Kolb trails in second place for the moment, nearly two points behind, and Sebastian Feigl who does not even make the German team this year although he won the Eurochamps in Trnava, is taking third place with one perfect score gained at Podhorany at the start of June. Brother Benedikt must be saving his best for Turkey and languishes far down the league.

Flyoff places are likely to be limited to 12 and my list to fill those precious spots is: Mustafa Koc of Turkey, Koni Oetiker of Switzerland, Marco Salvigni of Italy, Craig Goodrum from South Africa, Jan Kohout from Czechia, Lionel Fournier of France, Cody Remington from the US, Tobi Lammlein and Benedikt Feigl from Germany, Sven Zaalberg from New Zealand, Primoz Rizner from Slovenia and Juraj Adamek from Slovakia.

There are some notable names missing from that list and more than one surprise inclusion. Over the past few years I've averaged seven correct guesses out of 12, but I have also started with 14 choices which cheats a little. In Martin I was shouted at by David Hobby when his name was omitted from the forecast, and he proved me wrong. To give him incentive to win his hat-trick, he's omitted

again. Philip Kolb is an obvious favourite and to become world champion is the only remaining challenge left for him. But life is not always about near-certainties and it only takes two mishaps to stumble in F3J.

How easy is it to guess the complete flyoff list? Why not try. There will be a prize for the person who sends me the most accurate flyoff list, naming most pilots correctly. If you would like to enter, either give me your list in a sealed envelope on the flying field before the world championships starts, or send it to me by e-mail to arrive before Wednesday 25 June.

Senior team prize prediction is Germany. Next world champion: my prediction hovers between Jan Kohout to repeat his Corfu success and Tobi Lammlein, and if forced to pick one, then I guess Jan.

Even harder to predict is the weather. With 17 days to go, the temperature today is 32 degrees C. This time last year, temperatures in Turkey reached 40 degrees C plus many times, and that's a possibility, with humid winds coming from the north or dry winds from the south, straight across the flying field. More likely we shall enjoy temperatures between 25 and 35, hopefully no more than the odd shower of rain. Whatever happens, one certain bet is that all teams will enjoy a very competitive contest.

### Gordy's Travels

# Why NOT to put an electric motor in your sailplane

by Gordy Stahl, gordysoar@aol.com



Recently I was chatting with a newer soaring pilot who has just started his LSF task program (League of Silent Flight <a href="http://www.silentflight.org/LSF\_Base/tasks.htm">http://www.silentflight.org/LSF\_Base/tasks.htm</a>. He'd just purchased the new Cularis (http://www.multiplexusa.com/) as his first full-function sailplane, a 100" sailplane made of Elapor foam. The Cularis has earned a reputation for being a valid soaring machine, besides being inexpensive and durable.

He mentioned that he thought he'd get the version with an electric motor in the nose to avoid the "hassles" of dragging out a hi-start bungee or winch, thus increasing his opportunities to "practice" his thermal soaring skills.

In the past I was tempted by the dark side of laziness and convenience to put an electric motor in a sailplane, you know in order to make it easier and faster to get up a flight. It took me a while to figure out why that was a mistake. My goal was to become a more skilled thermal air reader and pilot in general, so the logic that more flights equaled more experience/skills seemed to be valid. After having done that, and then flying TD soaring contests afterward, and actually ending up with worse results, it dawned on me....

Don't do it! Don't put a motor on it. Seriously. It takes a sailplane that has had a lot of thought put into its design and turns it into just another airframe to carry a motor around. Putting a motor in it will cheat you in your desire to become a more skilled pilot. And that is the difference between sailplane guys and power flyers. Power guys direct their models around the sky... tricks etc... Amazing skills and talents in their own right, but far different than soaring. Pretty much the model is being drug around by the prop, and the pilot's job is to direct the motions with precision during the amount of time the motor runs.

Yeah, yeah, I know there are "sailplane" classes that use a limited motor run to get the sailplane UP, but those classes are about the motor systems, not the sailplanes. Motor is in the title and the size of and kind of motor is how they are defined as a class. You'll note that it isn't limited altitude launch, or even similar altitude launch. The quest and focus of those involved is to have a motor/battery/airframe which will get the model higher than all, implying that will give an

## stay a glider flyer or work at becoming a sailplane pilot

I know you are thinking using an electric motor/prop in your sailplane isn't the same as that, its just that you want to avoid the hassles of a hi-start or winch. Fine, I'll agree, IF you put such a small motor/battery in your model that you can only get 500' on the launch — once. No turning back on to go up again when your first "flight" finds your model at tree top height after only a minute or two.

Let's clarify some things before I go farther on this topic so that we have a clear understanding of definitions.

Definition of a sailplane: An airplane that goes up without a motor.

Definition of a glider: An airplane that lands without a motor.

advantage on the task. The focus being the launch, not the soaring. Certainly soaring has to happen when the motor shuts off, and that is the huge distinction between those events and having an electric motor in your sailplane to replace a winch or hi-start launch.

Kennedy Composites, in conjunction with Hexpert, the makers of the Zlog onboard altimeter, have created a version of the Zlog "F5J Switch" that can be programmed by the pilot or the contest CD to turn any motor off at a pre-set altitude, similar to launch line length limitations, so that all soaring contestants begin their flight tasks at the same altitude, allowing the use of the cheapest weakest, lightest motor/prop/battery

combos and turning the focus to what happens after the launch, versus the launch. <a href="http://www.kennedycomposites.com/zlog.htm">http://www.kennedycomposites.com/zlog.htm</a>

That hi-star/winch hassle is your best friend as a pilot. Why? Because you are forced to drag it out every time you want to fly. That means every time you want to launch. It's an important distinction by the way. With an electric motor in the nose the sailplane is turned into an electric powered "glider." Without a motor in the nose it's a sailplane that takes piloting/thermal reading skills to keep it up, especially against a clock counting down.

If you don't keep it up, you have to chase the 'chute, stretch it back and launch again. This is a penalty for bad decisions while piloting - for not flying smooth, for not finding a thermal, for not staying in a core, for not using your left thumb (rudder stick) first when initiating a thermal turn. (The last stick you want to use when beginning a thermal turn is the right stick functions. That's just one of the things you need to learn as a way to avoid that penalty of chasing the chute!)

With a motor in the nose, who cares? If you lose altitude you can just motor back up and try again, and again and again, forgetting those short flights, leaving the field with a feeling of accomplishment after having done one or two full time flights.

BUT then when you hook up to a winch or hi start you will end up in the same spot you have been developing a habit for. Of course the problem in this situation being that you won't have the motor to conveniently pull the plane back up. And if you think about what will be the case at a thermal duration contest, you don't start your tasks by turning on the prop. Higher scores come from a practice regime that more closely recreates the exact situation of your next contest.

Your choice: To stay a glider flyer or work at becoming a sailplane pilot. Countdown timing, talking timer, graduated landing tape, proper balance (nothing to do with the term CG), using the rudder as primary control — all the things that prepare you for a fun day of flying at a contest. These are some of the things that develop the distinction between being a sailplane pilot and being an electric powered glider flyer.

I will agree that the future of RC soaring may force us away from using high starts and winches. Large open areas are being developed into other more profitable uses. So the day of having a motor in the nose of our sailplanes is likely coming. Kennedy and Hexpert see it, and are betting on it with the development of their programmable altitude motor shutoff F5J Switch.





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Rudi Oudshoorn photo

#### **WHEN**

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

When I am at the field with my sailplanes, the sky is always blue, with just the right touch of white fluffy clouds.

When I am at the field with my sailplanes, the air is clear and clean with the fragrance of spring flowers and a hint of summer.

When I am at the field with my sailplanes, the wind is always at my back, the sun on my face and the breeze exactly as I would wish.

When I am at the field with my sailplanes, the birds are my brothers, my soaring friends of the air, my teachers.

When I am at the field with my sailplanes, all is right with the world, for only a right world could afford me the pleasure, the joy, the euphoria of soaring on high without a sound to disturb the tranquility.

When I am at the field with my sailplanes, the sky is always blue, with just the right touch of white fluffy clouds.



# Fixing at MONOKOTE iron

by Peter Carr, wb3bqo@yahoo.com

My Monokote iron had an unscheduled meeting with the shop floor. There was a sailplane stab on the workbench in need of repair so I needed the iron. Rather than order a new one I decided to take the broken one apart and see if it could be fixed.

Irons are tools that we generally don't think much about. Other than cleaning the plate and installing a new sock there isn't much maintenance to do on them. For that reason there isn't much information available about their inner workings. While trying to repair the one I had I decided to do some testing and

to generate some useful information that would help others in similar repairs.

The iron consists of a heating element, a heat control, and an AC power cord. The electric parts are mounted in a metal "shoe" with a lid that holds the heat control and joins the wooden handle. I removed the four self-tapping screws from the lid and removed two more from the clamp over the heating element. This allowed the entire electric assembly to lift up out of the shoe.

As you can imagine, it gets pretty hot inside the iron so the wires are covered with woven cloth insulation. It's easy to

expose the connections at the wire ends for testing so I did some ohm meter checks.

- The heating element reads about 1400 ohms.
- The heat control reads about 1.4 ohms closed and infinity when open.

The wire connections are crimped, not soldered. It appears that the heat/cool cycles over several years of use had changed the temper of the wire because one connection had broken. This opened the AC path from the heat control to the element. I found a replacement crimp lug in the junk box and repaired the

connection. I was concerned that other connections might break during reassembly but everything went back together without trouble.

Before reassembly I took a moment to figure out the heat control. It turns out that the device is decidedly low-tech. Basically it consists of a set of contacts, a bimetallic strip that bends with heat, and a threaded shaft. The threaded shaft has the knob mounted at one end and a small finger at the other. As you rotate the knob you are screwing the shaft further down onto the metallic strip. This sets the temperature at which the contacts open and close. Although not marked, I found that full "low" temperature setting would shut the iron off completely. It would be possible to leave the iron plugged into the AC outlet and turned off with the knob. However, there are not a lot of extra AC outlets in my shop so the iron will resume it's place, hung from a nail on the wall.

There is an old joke that all electric parts have smoke packed inside during manufacture. If you let the smoke out of the part it has to be replaced. I'd done all the resistance checks and was satisfied that the broken wire was the only trouble. I then reassembled the iron and plugged it in. It heated right up as expected. Testing with the unit disassembled wouldn't have given me any better info than the resistance checks and no smoke was liberated in the process. Obviously, working with 110 volts AC can be hazardous, so watch yourself. Do you want to know how I came by that information?

It appears that "Monokote" type irons are all of very similar manufacture no matter what brand name is on the unit. It also appears that they are hand assembled. Specifically, the plain blade jewelers screwdriver needed to install the knob on the shaft is not something a robot could handle. The parts of the iron are not particularly small or tight fitting so this may be the last appliance that can actually be repaired by the consumer.

Enjoy the experience. It may be the last appliance repair you ever get to do. ■





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# Simplebatics

Dave Greer, dave.greer@monteaglegroup.com

#### INTRODUCTION

My two favourite reads at the moments are the Berg Blog <a href="http://www.berg-gliders.blogspot.com">http://www.berg-gliders.blogspot.com</a> and Kev Farr's <a href="http://www.toss.co.za/">http://www.toss.co.za/</a> slope column in the excellent Southeaster magazine <a href="http://www.southernsoaringclub.org">http://www.southernsoaringclub.org</a>. za/SE-0805-May.pdf</a>. Mainly cause the accent is on fun and also because slope soaring has a habit of reinventing itself over the years. Remember that word "fun."

Kev may not be surprised that his mention of the difficulties of applying the existing formal slope aerobatic schedules to the common all garden slope soarers is something the DMAC have wrestled with for three decades, including the time consuming climbing for height between maneuvers and the short contest operating time envelopes between 2:00 and 5:00pm in the afternoon.

WHY

The introduction hints at why slope aerobatics has never established itself for more than short spurts. Unfortunately, do'ers like me had neither the inclination nor Kev's much mentioned nuts to go tamper with the slope commandments. Maybe the TOSS lads are just the fresh faced mob to rewrite to something much more "fun" for the slope lads, bearing in mind that "serious" is really not that easily attainable in this very different branch of the aeromodeling discipline.

The answer lies in the Capie's most favourite sexy slope rhythm, the all too common half-pipe. The solution being to stick in some varied simple tricks in through the bottom of the swoop, and a continuous slope aerobatic sequence is thus achieved for short periods of time.

The upside is that the entire sequence can be achieved within a minute and, more importantly, pretty much the whole mob from the particular class can soar

and play at height, awaiting their turn and alleviating boredom. All the introduction negatives addressed in one foul swoop, to coin a phrase;-), including involving the modern popular flying wing foamies as another class.

Some practice by Brad Conlon on the popular Toko, along with myself on a V-tail non-rudder Chapter 2 plus a tatty 36 inch foamie, proved the sequence is easily attainable with a bit of practice by pretty much the cross section of popular slope craft, but also very easy to look stunning or funny bad.

The three tricks are scored out of ten and the all too often iffy stall turns/wingovers incorporated only as part of the overall presentation, thus very little impact on the scoring. It is hard to describe without lots of hand signals, and the written explanation is damn confusing to the uninitiated, so thankfully John Lightfoot's ribbon drawing skills have come to the rescue.

#### **WHEN**

Get the slope tossers out to give the starter pattern a go on an informal level. It is deceptively tricky, great fun, and practical for any slope soarer than can fly inverted. We even allowed those inverted challenged pilots to swap out for another trick with a 1 point sacrifice.

Then slowly expand the envelope to encompass degrees of difficulty, without getting carried away, and get some brave soul to write us a new practical pattern sequence and we might just see a return to slope aerobatic comps, based on fun and lotsa flying.

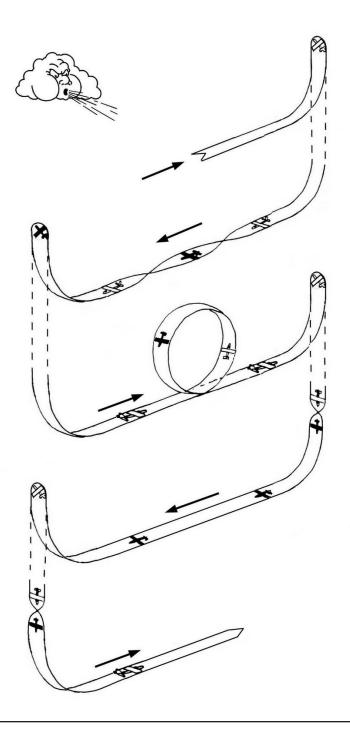
#### **EXPLANATION OF RIBBON SEQUENCE**

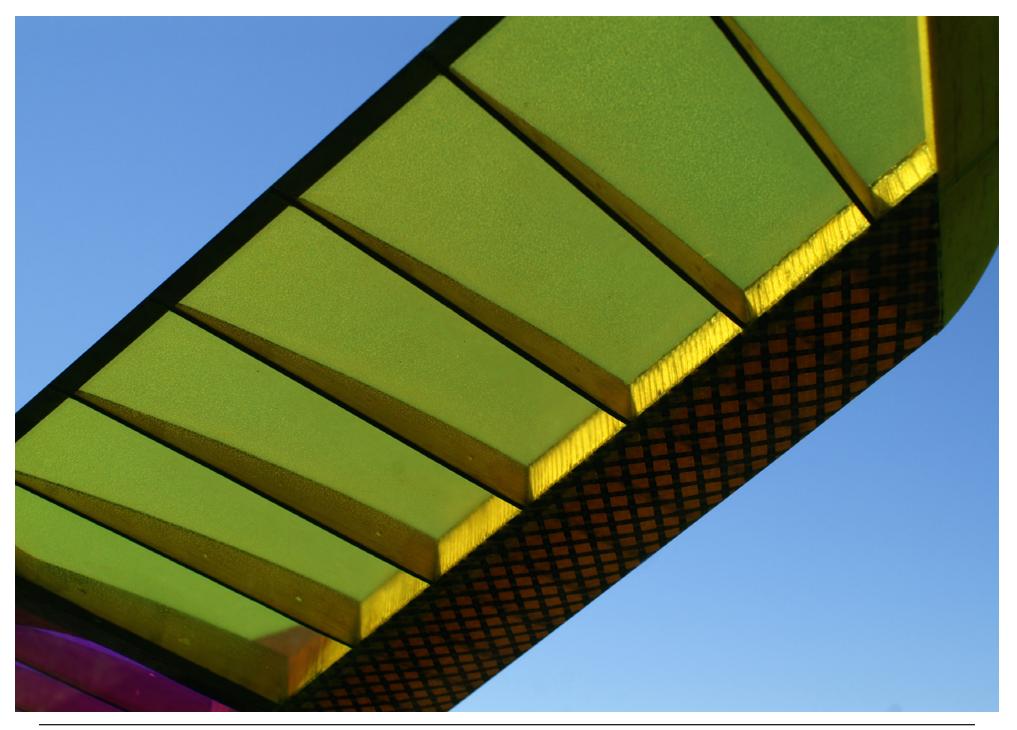
Half pipes are a continual series of huge U-shaped swoops left to right and back, the U facing the judges and audience, topped each end with a stall turn toward the wind – often used to build speed, energy and height.

One may build up initial height and a series of half pipes before the judging starts, which is called when at the dip bottom and climbing for the first stall. The sequence is then flown continuously as follows but may be in a changed order and one of the maneuvers — roll, loop, or inverted — changed to a nominated replacement for a 1 point sacrifice.

- 1. Warm up with some half pipes and then call "enter" as passing through the dip.
- 2. Stall turn side into wind, as normal for half pipe.
- 3. Full 360 degree roll (left or right) through the dip.
- 4. Stall turn side into wind, as normal for half pipe.
- 5. Full inside loop through the dip.
- 6. Stall turn side into wind, followed by immediate diving 180 degree roll to inverted.
- 7. Inverted pass through the dip.
- 8. Inverted stall turn side into wind, followed by immediate 180 degree roll to normal.
- 9. Call "exit" as pass through the dip.

The judging will be 10 points each for the roll (either left or right), loop and inverted swoop, plus a further 10 points for the presentation of the stall turns, centering and overall sequence.





## SIMPLICITY

by Barry Welsh, bxmwelsh@msn.com Pikes Peak Soaring Society



It was a long cold blustery winter in Colorado Springs this year so we had lots of building time and little flying time.

I finished all my building and repair projects and had some time on my hands. I wanted to replace my old Sparrow slope ship with something more agile that I could slam around the slope.

I've always been interested in the pivot wing approach so I set out to build the simplest possible slope ship that would perform well on the slope. I wanted no moving parts other than the pivoting wings. I wanted no external controls surfaces, hinges, or push rods.

Researching existing planes showed that 12 oz. per square foot wing loading seemed to be the norm for fast slope ships.

The junk in my shop, that we all accumulate, produced a glass fuselage and a set of foam glass wings that were donated to me by a fellow PPSS club member. All this came together to produce this excellent flying U-tail pivot wing ship named Simplicity.

A couple of features of this plane stand out from the normal approach, the obvious U tail and the vertical equipment mount.

I chose to make a U shaped tail just because I could do this with a pivot wing. In the building I discovered that a U tail is much easier to build and mount than the standard V tail or conventional tail. I can see no reason why a U tail should not perform as well or better than the equivalent V tail.



#### SIMPLICITY SPECIFICATIONS:

GEOMETRIC DECALAGE set at

WING SPAN 63.5" **WING AREA** 3 SQ FT WING LOADING 11.4 OZ / SQ FT CG set at 35% of MAC AIRFOIL S7012 HORIZONTAL TAIL VOLUME 0.33 ٥°

You can see in the picture that the tail is simply mounted to the fuselage with two cap screws.

A brass tube epoxied to the equipment mount holds the wing rod. Brass bushings are mounted around the wing rod holes in the fuselage to protect against damage from hard landings. Epoxy fills the front of the nose cone, forming around the equipment mount nose. Landing shock is transmitted directly to the wing rod through the equipment mount rather than through the more fragile nose cone and fuselage.



You can see in the picture that the tail is simply mounted to the fuselage with two cap screws.

To build the U shape tail I soaked four pieces of 1/16" balsa in the bathtub, taped it into the correct shape and tip alignment, then let it dry (it took three days).

Using slow set epoxy, I laminated the four pieces and a center layer of glass using clothespins to press the sheets together. Again I taped it to the right shape and tip alignment while the epoxy set.

It didn't take long to hand sand a symmetrical foil shape. I sanded the fuselage so that the angle of stab incidence was zero.

The wings pivot around a 3/8" steel wing rod. I could have used a carbon rod but I needed the weight to make my wing loading goal.

A short rubber band (just ahead of the rod) connecting the two wing sections keeps them from falling off.

I decided to use rearward mounted L shaped bellcranks made from 1/4" thick Delrin.

Short pins, in the wing root, slide into slots in the bellcrank and fit very tightly to avoid control slop. The bellcranks are connected via ball and sockets to two HS-125 servos mounted back to back.

A brass tube epoxied to the equipment mount holds the wing rod. Brass bushings are mounted around the wing rod holes in the fuselage to protect against damage from hard landings.

Epoxy fills the front of the nose cone, forming around the equipment mount nose so that landing shock is transmitted directly to the wing rod through the equipment mount rather than through the more fragile nose cone and fuselage.

The equipment mount can easily be removed from the fuselage by simply pulling out the wing rod.

The plane flies great and is very easy to handle. It is fast, agile, accurate, and responsive. I really can't tell that I'm flying a pivot wing. It feels just like an aileron – elevator plane.



Slope soaring in Colorado Springs is very satisfying. As you can see in the photo, the scenery is spectacular. Not shown in the photo, to the right, snowcapped Pikes Peak looms large. In the background are the snowcapped Wet Mountains.

The Pikes Peak Soaring Society flies off a high bluff facing south. Unfortunately access is through private property so excursions must be arranged through the property owner. To see more pictures access www.ppssrc.com - gallery − 2007 − slope... ■

#### Announcing...

Thanks to the graciousness of Charlie Morey, we've been given the opportunity to create a PDF archive of *Slope Soaring News*.

For those not familiar with *Slope Soaring News*, *SSN* was Charlie's brainchild which enjoyed a run of twenty issues in the late 1980s. The first issue was published in September of 1988, and the last issue was dated June/July 1990. During nearly two years of publication, *SSN* enjoyed quite a following. Manufacturers, flying sites, aerobatic skills, personalities, and everything else related to slope soaring was covered. Particular issues of *SSN* are sometimes mentioned within the RCGroups web site, the RC Soaring Exchange e-mail list, and other venues, but very few people of *SSN*, and tracking down specific articles is nearly impossible.

Because of this lack of availability, we contacted Charlie and have received permission to create a PDF archive of all twenty issues of *Slope Soaring News* on the *RC Soaring Digest* web site. You can find the growing archive at <a href="http://www.rcsoaringdigest.com/SlopeSoaringNews/">http://www.rcsoaringdigest.com/SlopeSoaringNews/</a>>. Each *SSN* PDF issue is about 5MB in size.

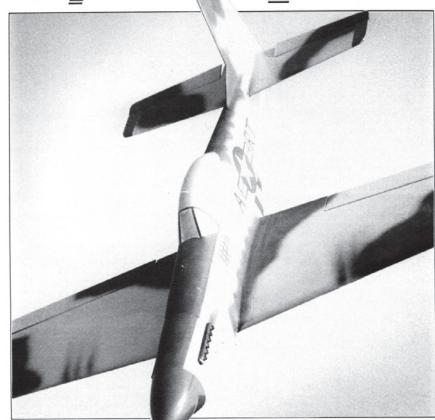
Reproduced here is an "ensmalled" (as opposed to enlarged) version of the second issue. The archived issues are the original 8 1/2 x 11 inch format, reproduced in grayscale at 150 dpi from 600 dpi scans.

If you would like to continue to see miniaturized versions of *Slope Soaring News* in future issues of *RC Soaring Digest*, please let us know.

#### **Power Scale Special!**

P-51 Mustangs, F-16s, P-40 Warhawks, F4U Corsairs, F-5s, F-4 Phantoms, Me-109s, Spitfires, F-20s and more!





PLUS: Futuristic, 16-Cham. Competition Radios ● Curved Foam Wing ● International Slope Race Info ● Site of the Month: Kite Hill ● Composite Marvels: F3B Sailplanes at the U.S. Finals.

A Peek at the Kuntz/VealeTitan III Slope Racer ●

#### Wingin' It

#### LOOSE ENDS

First things first. Thanks to all you guys (and one gal) who subscribed. We appreciate your support, and we'll do our level best to make Slope Soaring News your favorite publication.

#### Talk to us

Don't be shy about letting us know how we can do that, either. Write! Let us know what's on your mind. Let us see pictures of the gliders you've built. We might even have a design contest. Any

#### "We want to be involved in anything that helps the pastime of slope soaring."

ideas about how to judge one?

Let us know about your flying sites. We'd like very much to come visit them and learn more about the people who fly there and what they've built.

#### Sponsored by SSN

Any clubs or promoters in the crowd? We're interested in helping sponsor slope events. Races, fun fliese-you name it. We want to be involved in anything that helps the pastime of slope soaring.

#### Talent search

Are you a writer? A photographer? We can use news from everywhere. We'd appreciate any help you may offer. I had a great phone conversation with John Veale today. (He and Ray Kuntz are mentioned a couple of times in our "Scraps" section this month.) John offered to write a radio column. I think that's a great idea, but I wonder

exactly what sort of questions you'd like to ask him. He can tell you how to modify your radio, how to set up mixes and gains, battery care-whatever you want. Send in your questions, and I'll pass them on to John.

Advertising update

Check it out! We have an ad this month. Larry Sribnick of SR Batteries got on the phone as soon as he received his first issue, and we chatted for a half hour about slope soaring. He loves it! Larry decided to place his ad with us even though we're a brand new publication just because he wants to support slope soaring and he likes our effort. He's a neat guy to talk with, and I already know where I'm going to buy my next battery pack. By the way, if you purchase any products you see here, either in an ad or in one of our stories, please take an extra moment to tell them that you heard about it through SSN. It'll help us develop a good reputation with the hobby industry companies. With their advertising support, we'll be able to expand SSN to more pages.

#### Thanks, Wilshire!

Bob Ratzlaff gave us a half-page in his Wilshire Model Center catalog so we could tell his customers about SSN. The extra exposure will help us get more readers, and with growth comes bigger and better issues.

#### Dealers

Wilshire Model Center is also our first dealer. We mailed copies of the first issue to about 50 California hobby dealers, then followed up with a second mailing asking them to sell SSN. Only Bob at Wilshire has responded so far. If you'd like to see SSN on sale at your favorite dealer, please remind him to send in the order form. Thanks!



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EDITORIAL CONTRIBUTIONS are welcomed. Unfor-tunalely, we can't pay for them, Editorial material is selected based on its perceived value to the slope soaring community, and the publisher assumes no responsibility for accuracy of content.

CLUB CONTRIBUTIONS are welcomed, Please keep us notified of your club's events and/or fun flying ac-tivities. Material printed will be selected at the discre-tion of the editors.

ALL CONTRIBUTIONS should be addressed to SSN, c/o Charlie Morey, 2001. E 16th St., 2402. Signal Hill, CA BODA. All contributions requested for return must check the state of our answering machine. Just leave your name, phone number and the purpose of your call, and we'll get

ADVERTISING inquiries should be addressed to SSN, c/o Charlie Morey, 2601 E. 19th St., #29, Signal Hill, CA 00004, 213/44-3712.
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When the thermals roll in at Kite Hill, soaring is superbl Unlike the frantic action at Point Fermin, Kite Hill offers afternoons of relaxed flying with a combination of slope and thermal conditions. You're likely to see everything from Son of Savage slopers to huge scale Minimoas.

#### Site of the Month

#### KITE HILL

By Chuck Korolden

Last month we went to the vertical cliffs and booming lift of Point Fermin Park. This time, we go to Kite Hill, a different type of slope. Well, it's more hill than slope. And it offers a different style of flying than most other slopes where I've

The first thing you'll notice about the site is how well organized it is. At the bottom of the hill, just off Alicia Parkway, a gate marks the beginning of a narrow, well-paved road to the top. At the top is a paved parking lot and a real restroom - not one of those fiberglass sweat boxes that makes you wonder, once you're inside, if maybe holding it would've been a better idea. On the flying side of the hill are some picnic tables. It's the classiest site I've found to date.

The people who fly at Kite Hill are very laid back and friendly. At some places I've been to, the reception to strangers has been pretty cold, to say the least. But not at Kite Hill. Granted, I've only been there twice, but both times, the flyers made me feel right at home.

Now, about the lift. It's not like any place I've been before. The lay of the land is interesting. Kite Hill is slopes gradually on the south side and gets steeper on the west side. The hill sits at the end of a west-running valley and is about 75-100 feet high. It's about 10 miles inland, so the on-shore breeze isn't very steady. Hence, neither is the lift, or at least it wasn't on these two occasions. What seems to be happening is a combination of thermal and slope conditions.

If you're into fast, heavy planes, it might not be worth the trip if all you want to do is fly. On the other hand, if you want to pack your planes and go explore a new site, you'll find yourself at a place where the view is nice and the natives friendly. Also, if you have an F3B ship and don't want to screw around with the winch, this could be just the ticket. A plane like that could take advantage of the varied conditions and would find the landing area a nice place to shoot spot landings.

You land on the south face of the

hill on the gently-sloping side. You start low and come up the hill. As you bleed off air speed, the ground rises to meet you. It makes for gentle landings as long as you set up right.

Remember, whenever you go to a new site, you're going to somebody else's back yard. They may not own the land, but they fly there on a regular basis, and so they stand to lose the most if someone acts in an unsafe manner. Translation: Don't act like a jerk at any flying site.

In an upcoming issue, we'll talk about site closure. Some are lost because of new building construction. Not much we can do about that. But some are in danger of being shut down because the neighbors don't feel safe. Think about it. If you don't want to get hemmed in like the power pilots, then it's up to all of us to take care of what we have and educate those who don't under-

#### How to get there:

Exit I-405 at La Paz Rd. near Mission Viejo and Laguna Hills. Go southwest on La Paz. Turn right on Aliso Creek Rd., then left on Alicia Parkway. As you round the corner, look to the left. You'll pass directly under the slope. Turn left just after the slope.

#### $O \bullet W \bullet E \bullet R$ $S \bullet C \bullet A \bullet L \bullet E$

aul Masura has a huge grin on his face. The plane he's flying – a friend's P-51 Mustang - is locked in a tight, three-plane formation high over the beach at Bluff Cove. An Me-109, a Spitfire and the Mustang reach the peak of their climb simultaneously, yaw through weightless wing-overs 100 feet over our heads and point their noses directly at us. The two-pound gliders accelerate silently in near-vertical descent, wing tip to wing tip, and whistle past our noses in a blur of speed.

At the apex of their next ascent, two of the planes click wing tips. An exclamation rises from the onlookers as the planes topple, temporarily out of control, until their pilots get the noses aimed down and regain enough speed to fly again.

Their rhythm broken, the three fighters take off in separate directions. The Messerschmitt clicks off a four-point roll; the Spitfire lays a strafing run on the beach; Masura brings the Mustang straight down past our toes, just skimming the grass-tops along the cliff and dives 150 feet below before pulling out, then rolls inverted into an enormous outside loop that once again brings the plane within flinching distance of where we're standing.

The pilots' skill, Bluff Cove's incredible lift and the appearance of these miniature World War II fighter planes has provided us with an experience that's ALMOST as much fun as piloting our own gliders.



By Charlie Morey

Power scale-what a dry name for such an exciting facet of slope flying! Power scale combines the speed and maneuverability of a high-performance slope ship with the appearance of real aircraft. And what aircraft they are!

In addition to the WWII planes mentioned, you can also pilot F-5s, F-16s, F-20s, F-4 Phantoms, and several nonmilitary models.

My personal favorite is the Sailplanes Only P-40 Warhawk. Oh yeah, and biplanes. I've got a modified Ace All-Star power model that's now a glider. True, it's not really a scale airplane, and its performance could best be described as so-so. But I've learned enough from it to draw up plans for a semiscale WWI SE-5A. Now all I need is more building

Power scale is a natural extension of slope flying. Good slope lift allows heavy wing loadings that just won't stay airborne in normal thermal flying conditions. High performance is the name of the game; scale appearance is frosting on the cake.

As appealing as power scale may be for beginners and fliers with no aileronship experience, it's not a good choice for anyone but an accomplished slope pilot. Work your way through that aileron trainer first. Most power-scale planes are fast and quick handling, designed for experts. The heavy planes can quickly become a handful for the inexperienced flier, and the inevitable crash can injure people, plane and pride. For safety's sake and in the interest of keeping your new model (and ego) in one piece, don't try power scale until you're sure you're ready!

#### THE PLAYERS

We don't claim to have a complete list of all power-scale manufacturers, but there are some very interesting kits and plans listed here. If you happen to

about it. We'll mention it in an upcom-

#### Sailplanes Only

Marty Silberstein and Tom Moxley have produced two excellent choices, the F-5 jet and the P-40 Warhawk WWII warbird. Steve Peacock has Next, lay two short pieces toward the ioined Marty recently and the two have nose. Finally, after cutting the cowl just come out with an exciting new kit, a hatch, complete the nose reinforce-Corsair, a bent-winged beauty that's ment. Marty also recommends filling bound to challenge the popularity of the the nose cone with a solid mix of resin Mustang. Next on their agenda is a and microballoons for strength. Japanese warbird, the KI-100, a fighter introduced late in WWII that outper- Full-size drawings are furnished for the formed the infamous Zero.

The \$60 kits are offered Bluff Cove style: two-piece fuselage, foam cores will probably have what they need and basic instructions. Not for the beginning builder!

The two-piece fuselage presents a new challenge for many builders, and Marty offered the following tips for assembly. Joining the top and bottom fuselage halves smoothly is the tricky part.

First, tape the halves together using short pieces of tape around the outside tle speedsters would be a good way to to hold the sides in alignment. Using thin cyanoacrylate glue, fasten the two way, I met Joe Wurts at the F3B meet

Warbirds and jets roost at Bluff Cove.

visible in this photo. See anything you like?

Most of the models available from Slope Scale and Sailplanes Only are

manufacture power-scale kits, or if you process; put a solid glue joint all the way know of one we missed, please tell us around. If the seam is not completely sealed, resin will leak out when you complete the seam from the inside and make a long, difficult clean-up job for

> Cut out the wing opening. Then lay one-inch-wide fiberglass cloth in convenient length pieces on each side all the way around the seam. It's easier to do the tail first, one piece on each side.

> You supply all wood and hardware. tail surfaces. Estimated wood cost is \$20-\$30, although experienced builders "filed" away somewhere in the shop al-

Typical Bluff Cove finishing includes a permanently attached wing and tail, filled and smoothed with resin and microballoon fillets, and realistic paint schemes with flat colors. Seems to me vacuum bagging the wings on these litgo if you have the know-how. (By the halves together. This is not a tacking and hope to feature his wing bagging

Hey, mister! Wanna buy an airplane? If you're lucky enough to be a Bluff Cove local, you can pick up your Sailplanes Only F-5 or P-40 Warhawk "factory-direct" from Marty Silberstein.

technique in an upcoming issue of

Locals can catch Marty at Bluff Cove. He always has a few P-40s and F-5s in his van (and hopefully a good supply of Corsairs soon). He's always happy to close a cash-and-carry deal. Otherwise, contact him by mail at 221 N. Swall Dr., #2, Beverly Hills, CA 90211, and he'll ship your kit to you. The \$60 price tag includes shipping.

#### Slope Scale

Paul Masura and Brian Laird produce several WWII fighter planes including a P-63, a Messerschmitt 109, a Spitfire Mk. 15 and a P-51 Mustang. Part of the Bluff Cove gang, Paul and Brian produce expert-only aircraft. As we explained earlier, that applies to both building and flying skill. The kits include a two-piece fiberglass fuselage, foam cores and plans; the rest is up to

Typical of Bluff Cove power-scale planes, they take standard radio gear (yep, the bargain-basement Futaba Conquest with S-28 servos and 500mah battery pack). The basic Bluff Cove



Vortech Models' P-51 Mustang. Jeff Fukushima tested his prototype Mustang at Long Beach, so we know it'll fly in only moderate lift.

plane generally weighs out at 32-34 ounces, ready to fly. Wing spans are around four feet, and they fly on a thinned Eppler 374 airfoil. The E-374 is a standard for slope racers, so it's not surprising that the little power scalers are fast.

Judging from Paul's reaction to flying the Mustang, it's the best performer of the lot, although Brian flies a P-63 that's especially clean. When he brings it by at Mach speed, it doesn't even whistle; it just passes in a blur and a quiet whoosh.

The Me-109 and the P-63 are available now. The Spitfire and the Mustang will be later this year. The last time I talked with Paul, he predicted the P-51 would be ready by October, but in the meantime, both he and Brian bought new houses and moved to Riverside. Conflicting rumors indicate that (1) everything's fine and the Mustang will be produced as soon as the moving pains subside, or (2) the Mustang proved to be too difficult to produce, so they won't do it. A subrumor claims that a limited edition of the Mustang was produced before the mold was destroyed. The scoop under the wing was very detailed on their prototype and is reportedly the cause of the difficulty. Which may not be a difficulty at all since this is just a

rumor, OK? So much for the rumors.

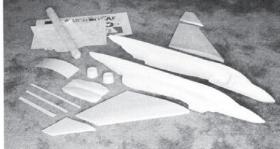
If you're seriously interested in owning a Slope Scale model, contact Chuck Allen, as listed below, for the latest information.

Slope Scale kits are available exclusively through Chuck's Model Shop, 14005 Hawthorne, Hawthorne, CA 90250, 213/644-5000, Check with Chuck on availability (and bypass all the slopeside rumors!). There's probably a waiting list, especially considering the halt in production while the guys moved. The price is \$59.95 for the partial kits. Plan on an additional \$20-\$30 for other materials to complete them.



You may remember Jeff Fukushima from the cover of our first issue. That was his Shadow running a knife edge down the Long Beach rail.

Jeff produces a complete P-51 Mustang kit: fiberglass fuselage, foam cores, plans and wood. The fuselage is one piece; in other words, he does the assembly of the two halves for you. This feature makes the kit as easy to build as any fiberglass-fuselage and foam-core slope plane. The airfoil is a semisymmetrical TLAR (That Looks About



Eric Clutton offers this unique F-4 Phantom kit. Good stuff! The fuselage is vacuum-formed plastic; the wings are blue foam. The builder must furnish wood and hardware.

Harry Finch and the Howard Metcalfe F-4 Phantom. Doesn't it look great? There's definitely a Phantom in SSN's future.



Right) configuration, and the wing is sheeted in 1/64" plywood. No, it doesn't come already sheeted; you have to do it. Jeff's P-51 flies at Long Beach, so the model should fly just about anywhere. We have a small slope, probably about 60 feet high, so lift varies between barely adequate and fairly good. It never reaches Point Fermin or Bluff Cove standards. The Vortech P-51 doesn't appear to match the speed of the Bluff Cove planes, but it's difficult to judge since I've never seen them side by side. Regardless, the Bluff Cove ships are designed specifically for high-lift sites, and Jeff's is designed to fly anywhere that will support a typical aileron plane.

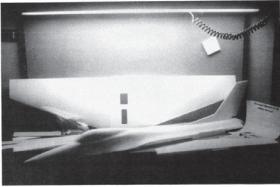
As we go to press with this issue, negotiations are underway between Vortech and Wilshire Model Center. The prospects look good. Jeff wants to be a manufacturer, not a salesman, and Bob Ratzlaff is looking for a good power-scale model to sell. Obviously, the P-51 is a very popular choice, so both should do very well if the deal goes through.

Contact Wilshire Model Center at 2836 Santa Monica Blvd., Santa Monica, CA 90404, 213/828-9362, for more information. (If their deal doesn't work out, contact me at SSN, and I'll find out what Jeff's planning to do instead. If Wilshire decides against it, perhaps we'll sell the Vortech kits through SSN.) Oh, did I say kits, as in more than one kit? Not yet, but soon. What would make a perfect running mate for the P-51 Mustang? Of course! Mr. Fukushima now has a Zero in the prototype stage.



Eric Clutton imports the British Howard Metcalfe kits, but it's one of the best-kept secrets in the slope-soaring world. Ever notice the P.A.W. Diesel ads in the magazines, the ones that also show a tiny F-4 Phantom with a propeller sticking out of its nose? That Phantom is a very nice slope-soaring kit that people apparently screw up by putting a motor in it.

I ordered the \$69.95 kit more to satisfy my own curiosity than anything else. The F-4 is one of those planes that just looks right to me, and I wanted one bad. I felt like it was a long shot, but I haven't been disappointed yet. (I say "yet" be-



Combat Models' F-16 is a slam-dunk quick build. Yeah, there's one of these on the SSN building bench, too. Clean lines and quick, easy assembly are obvious features.

kit, although it looks as if it'll work just patented clumsy landing techniques.

The fuselage is a curious part, actualformed plastic. The initial trimming has been done, so all I had to do was touch volved building procedure. For ex- and it's of excellent quality. ample, you have to cut off the tail end of the fuselage to install the fin-stabelevator unit then glue it back on again. scale appearance, I think it's worth the

Curiously enough, the blue foam wing is cut in a flat-bottomed airfoil. I'd have may kit one or several of these plans. It expected an E-374 or some other semisymmetrical foil for speed and inverted flight. But this plane is not designed strictly for slope flying. Instructions include information on launching it from a winch, and the instructions suggest Lane, Tullahoma, TN 37388. finishing the wing in brown paper and white glue, a standard British technique that's certainly lighter than balsa, obechi or light ply.

I confess, I've never made a kit exactly by the instructions, and the F-4 will be no exception. I'll make it heavier, and I also intend to make a second wing with a semisymmetrical airfoil. So much for stronger by far than the typical "7-11 intelligent, well-planned kit design; styrofoam cooler" foam kits, and it looks knows better! Sorry, Howard; sorry, can't I find the time?) Eric. I can't help it. I also intend to beef

cause I haven't completed and flown the up the fuselage to withstand my

If you're a scratch builder who feels comfortable with standard balsa and ply ly two parts. It's made of vacuum- construction methods, Eric also offers five power-scale plans: SR-71 Blackbird, Hawk 200, Tornado F2, English it up with a large, flat sanding surface Electric Lightning and Harrier GR-3. and Zap it together. It's sort of an in- He sent me a copy of the Hawk 200 plan,

Eric told us that some of these planes are to be built with foam wings, but he didn't specify which. The price for the But in the interest of maintaining the SR-71, Hawk or Tornado is \$16; the Harrier is \$14; the Lightning is \$12. Add \$1.50 for postage in each case.

Eric says that for a winter project, he would be no problem to offer them as all-wood kits, but he feels that converting them to fiberglass fuselage and foam wings is a better way to go. Interested? Stay in touch with him at 913 Cedar

#### Combat Models F-16

I just ran out of time on this one. I have a kit in the shop, and although I admit a personal aversion for foam models, this one looks better than most. The foam is there's always some hack out there who as if it should be a quick build. (So why

Again, my immediate impulse is to strengthen this model. That's partially due to my admittedly sloppy landing abilities and partially due to the fact that most slopes are chosen for their lift, not their landing surfaces. The F-16's long nose seems to be the first area to suffer. I'll probably add some strengthening, perhaps a light plywood "keel" embedded into the bottom edge to help it skid in more safely.

There are a few Combat Models F-16 flying in the Long Beach/Point Fermin area. They look nice, but they don't appear to match the performance of the fiberglass and foam core models. They require strong lift. Flying one at Long Beach is a nervous experience, and even at Point Fermin, they seem slower and not as responsive as the other fiberglass-and-foam-core power-scale planes.

The price is right, especially at the discount stores like Hobby Shack, and the quick-build characteristics appeal to me. That's why I bought one. List price is around \$70, but the discounted price is in the \$40-\$45 range.

If your dealer doesn't stock them, they're available though several mail

order outlets, or contact Combat Models, 2128 48th Court, San Bernardino, CA 92407.

As I mentioned, I ran out of time before I could get together with the people from Combat Models for this issue. I'll follow up with them, hopefully go flying with them, and put the results in an upcoming issue.

#### Advanced Glider Concepts

The AGC F-16 and F-20 are goodflying, high-performance slope kits that require an experienced hand at the stick as well as in the shop. Like the other Bluff Cove ships, the AGC F-16 and F-20 feature two-piece fiberglass fuselages and foam-core wings. Lynden Song, another Bluff Cover, designed his kits lighter than its Bluff Cove counterparts so that they (he claims) will fly at any slope. They do fly at Long Beach...

A buddy of mine who flies regularly at Bluff Cove has the F-16. He flies it well and thinks it's great. Other builders have reported that the kits are difficult to build, yet he felt it was no more difficult than the other two-piece fuselage-

Complete kits are available at hobby stores, or contact Wilshire Model Center if you want to mail order one. If you'd like to try your hand at contacting the manufacturer, write to Lynden Song, Advanced Glider Concepts, P.O. Box 1019, Manhattan Beach, CA 90266. Wilshire Model Center's address is 2836 Santa Monica Blvd., Santa Monica, CA 90404, 213/828-9362.

#### J.M. Lupperger Plans

Scratch builders will appreciate the plans service offered by John Lupperger (say "lupper zyay"). John is also the silent flight columnist for Model Airplane News, and he has designed several very nice polyhedral sailplane kits, including the Gnome and the BODST (Bird of Daylight Savings Time) hand-launch glider.

His catalogs list British plans for everything, so you'll have to weed through free flight, R/C power planes and much more to find the slope-soaring gems hidden within. Among them are the very interesting Grumman X-29A (experimental forward-swept wing jet), the A-10 "Warthog," the Chance Vought Cutlass and the British Vulcan. Another couple of plans that caught my eye were not power scale but intriguing nonetheless: a golden eagle and a bat. Right. Not airplanes, but soaring models of the bird and beast.

The catalog includes good sections on sailplanes: scale, slope and thermal, and there are a lot of power planes (scale) that could be converted to slopers by talented builders.

Send \$3.00 for Argus Plans Handbook One to J.M. Lupperger Plans, 1304 Palm Avenue, Huntington Beach, CA 92648.

#### Jet Hangar

No, Jet Hangar doesn't offer slope kits. They do produce a superb line of scale ducted-fan models, though, and some of them lend themselves to slope use. Harry Finch bought the Jet Hangar F-86 Saber Jet and built it as a glider. It's beautiful, but it requires excellent lift to fly. I've looked longingly at the F-



Harry Finch accepted the challenge of converting a Jet Hangar Models'

F-86 Sabre Jet ducted-fan kit into a slope soarer. Beautiful, but it needs

The Jet Hangar kit is designed for perfect scale appearance. If you want to

detail it out, you can have the most accurate scale plane at the slope.

Cougar has a larger wing area than the F-86, and I could always enlargen it a little more to lighten the wing loading.

Jet Hangar's F-86 is a handful!

lots of lift to fly.

Check out the detail!

It's a demanding building project, though, and it's not a cheap date. The complete Jet Hangar kits are out of the question, but Larry Wolfe has said he'd sell a partial kit (the beautiful fiberglass fuselage, canopy, foam cores, etc.) for around \$130. If you fly in a spot with excellent lift and want a large model with 9F Cougar for the last year or so. The perfect scale detail, Jet Hangar could

provide the answer.

Contact Jet Hangar Hobbies, 12130-G Carson St., Hawaiian Gardens, CA 90716, 213/429-1244, for more informa-

#### That's all, folks!

Well, there you have it. Power scale slope soaring. It offers the best of everything a slope pilot might ask for-both performance and appearance. How about you? Ready to try it?



Advance Glider Concepts' F-16







HEY, HOW DID HE DO planation of his process, complete with pictures, the published in an unco

Have you been wondering how they made those beautiful elliptical Hobie Hawk wings? With a very expensive set of molds, that's how! But when we saw Bill Bornemann test flying this curious-looking plane at Hughes Hill, it beplanation of his process, complete with pictures, to be published in an upcoming issue of SSN. If you can't wait, he'd welcome your phone call at 213/821-7683.

#### PRESSURE!

Whenever we're talking with people about their



Look, Ma! No polyhedral breaks.

Bill Bornemann has figured out how to reproduce an elliptical wing in his home workshop. The theory is simple, and Bill has agreed to detail the procedure in a future issue of SSN.

came apparent that he'd found a way to produce an elliptical wing in his own workshop.

Bill starts with a set of Eppler 205 airfoil templates and a couple blocks of foam. He cuts a standard foam core, then fiberglasses the bottom side. That allows him to bend the wing upward without breaking the foam on an elliptical jig he's built. The bending is the critical part, but foam will compress without breaking, so it works. Then he 'glasses the top.

Simple! Well, sort of, anyway. Bill has agreed to write a more in-depth exoriginal designs, we eventually ask them if they've come up with a name for the plane. About five times out of 10, they're ready for the question, but the other five times, we get a shrug, an embarrassed expression or an instant brainstorming session to think of one.

Gary Everett chose the last option. He was pacing and pondering, everyone was firing suggestions at him and the situation was getting tense. He had to come up with a name!

"Pressure!" he suddenly exclaimed. "There's a lot of pressure on me, here!" "That's it!" his buddy replied. "Pressure. That's the perfect name for this plane."

You may think the little

36"-span Pressure looks a lot like a larger model that's readily available, but in fact, it's a whole new bird. Gary offers the nearly completed plane, as shown here, with the fuselage rough-sanded, the wing sheeted and the tail pieces cut to shape. It's held together with tape for the photo. The wing shown here has been sheeted with 1/64" plywood, but all production models will be foam core with 1/32" balsa sheeting.

The Pressure features a TLAR airfoil. (Readers who get their 'foils from the Eppler book may not recognize the TLAR. It's an acronym for That Looks About Right. And believe it or not, it works!)

Pressure is also available in a flying-wing version. Basically, it's exactly what you see here with the tail cut off just behind the wing's trailing edge. Mixing for the elevons is accomplished with a sliding servo setup. The price tag for either version of the Pressure kit is \$100, and you can get in touch with

Gary at 213/755-6450.

That flying wing would look great in the SSN shop, Santa. (I sure hope Marcie proofreads this issue carefully...and recognizes a good hint when she sees one!)

#### KILLER RADIOS!

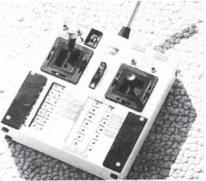
Competition breeds technology. At the F3B trials, we saw super-tech fiberglass and carbon fiber airplanes. At Hughes Hill, we saw Ray Kuntz and John Veale's Titan III slope racer. And in both places, we saw some incredible radios!

The big F3B and slope racers make our two-channel slope toys look stone-ax simple. Coordinated ailerons/rudder, flaps/elevator, flaps/ailerons, preset

#### Pressure

Gary Everett's 36" model is available in both conventional and flying-wing configurations. The best part is that most of the work is already done. It comes in this rough-sanded ARF state. We want one!





Ray-Jay's radio offers 16 subchannels.

John Veale modifies a seven-channel transmitter to accept 10 different plane configurations, generate 16 subchannels and mix channels in 14 combinations.

flap and aileron positions for launch and landing, and airfoil camber adjustment along with a full house of mixes, trims and gains, make the technoships ultimately adjustable.

#### Ray-Jay Aeronautical

Ray Kuntz and John Veale have formed Ray-Jay Aeronautical Engineering Company. They make both the Titan III slope racer and the radio that controls it. The Titan III is a personal project and not offered for sale, but the radio is, at a cost of around \$600 for the transmitter and receiver.

The Ray-Jay radio is an expanded version of the same technology that the original transmitter is based upon. From the original seven channels, it generates 16 subchannels, each with full throw, direction and trim adjustment.

A 10-position selector switch controls which combination of the 16 subchannels are transmitted. The selection depends on your plane's configuration, and they've set up combinations for everything from "racing glider" to "flying wing" to "biplane with four ailerons." There are 14 function-control potentiometers that offer differential aileron adjustment, flap/elevator mixing, all the basics, plus more.

The "elevator input to ailerons" pots are used to lower the trailing edge of the wing with up elevator. In flight, that gives additional lift to assist your up-elevator command. The "landing switch to spoilerons" and "landing switch to flaperons" pots raise the outer surfaces (ailerons) and lower the inner surfaces (flaps) to create drag, slowing the ship, generally used for landing.

A single switch returns the transmitter to the original seven-channel operation. Custom programming is available in case Ray and John have forgotten anything you need. Interested? Call John Veale at 213/370-6237 or Ray Kuntz at 213/645-4269 for more information.

#### ATRCS (say "A-Tracks")

We met Tom Mroz at the F3B finals where the U.S. team was chosen to compete at the world championship meet in France. Tom is a partner in a company called Control Systems Laboratories that produces the ATRCS module. He was with the South Bay Soaring Society team who used his modified Airtronics radios, and of the four filers who qualified

display. Like a computer, it operates on a menu system that displays on the LCD. It comes with an extensive manual, although the most difficult part to us would be knowing what settings to make, not how to make them.

ATRCS can store information on up to four airplanes: trim settings, complex mixes, you name it. It has seven "templates" which are preset for seven different plane configurations. The templates are all for sailplane use, not a throttle setting in the bunch.

Every moving surface is individually adjustable. You can adjust the amount of up-elevator and down-

#### ATRCS' control panel is computer-like.

CSL 's radio modification installs a 16-megahertz, 16-bit microprocessor into your Airtronics Module transmitter.

MAIN MENU

Control Systems Laboratories

ATRO



for the team, three of them—Seth Dawson, Rich Spicer and Gene Engelgau—used the ATRCS radio.

The ATRCS is a \$295 modification to your Airtronics Module SP7 radio. Other radios will follow, but for now, it's Airtronics only. It works with most manufacturers' seven- or eight-channel FM/PPM receivers and with Airtronics' six- and eight-channel PCM receivers.

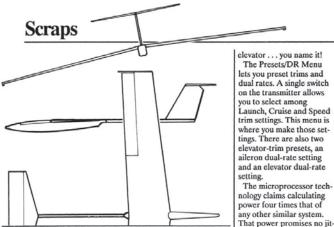
It's actually a 16megahertz, 16-bit microprocessor (computer). The familiar pots are gone, replaced by six keyboard-style switches and a 16-character liquid crystal

elevator separately, for example.

The menu structure is divided into five parts. The Main Menu lets you specify which of the four planes you're flying. It also lets you set three protection levels (which will keep you from screwing up your presets at the field). Your protection options are (1) full, no changes allowed, (2) open, change anything you want, (3) limited, change only surface centering or mixing gains. Other Main Menu options include Mode selection (I or II, A or B), Calibration and Self-Diagnosis.

The Basic Configuration Menu lets you select aircraft type (one of the

11



Only the wings are droopy on Harry Finch's anhedral ship. The performance is anything but! Low-speed maneuverability is excellent. Thin wings and smooth design keep it quick.

seven templates), V-tail, Side pot reversal, Spoiler selection, Receiver type, Servo reversing, Servo type and a couple of very interesting others. "Freeze flag enable" allows you to set a dead band of flap stick so that you don't accidentally move the flaps when using the rudder. "Set flap stick landing threshold" automati cally moves the ailerons (spoilerons) upward to assist the flaps at a point preset by you. "Select rudder/aileron mix for landing' can automatically reset the mix to maximum rudder as you reach the landing threshold. If you've been flying at a reduced (highspeed) mix, the option can remember to reset for you so you'll have maximum control while landing. Could save a plane!

The Surface Adjust Menu lets you set each individual control surface in each direction. All centering is done here, aileron differentials are dialed in, even the

rudder right and left set-

Mixer Gains Menu adjusts the amount of mixing in 17 different ways, including wing camber/ailerons/flaps,

tings are done individually.

spoiler/elevator, flap/

#### SSN's first SCRW-UP! Award.

When we saw Wayne Flower's F-20, we knew it was a natural winner for the Special Commendation for Rotten Workmanship - Ugly Plane! (SCRW-UP!) Award. In addition to the unpainted fuselage, wings and tail, Wayne's beauty (ugly) features three types of tape-duct, masking and unknown-and numerous nicks and scars. Congratulations, Wayne! What's next on your building board? (Seen any really ugly planes lately? Take a photo and send it in for the next installment of the SSN SCRW-UP Award.)



we mentioned before, is not making the adjustments. but knowing which adjustments to make.

The Presets/DR Menu

The microprocessor tech-

tering or jumpiness of con-

operates on an advanced-

memory technology called

EEPROM that requires no

Although this may sound

very complicated, we found

that by reading CSL's hand-

out, it was relatively easy to

learn. The hardest part, as

battery to sustain itself.

trol surfaces, and it

For more information, contact Control Systems Laboratories, 1361 Fallen Leaf Dr., Milpitas, CA 95035, 408/946-4142. While writing this article, we called, and Tom answered the phone. While his radio and company name may appear too high tech for human consumption (computer intimidation is a very common modern malady), Tom is a friendly guy who loves R/C soaring (probably) as much as you do. Don't hesitate to get in touch with him about the ATRCS.

#### FINCH BIRD III

Harry Finch is one of SoCal's most prolific slopesoaring modelers. Elsewhere in this issue, you'll see a couple pictures of Harry and/or his powerscale slopers, but that's only part of his repertoire. His most recent creation, a 48"wing-span, anhedral podand-boom glider, is truly a work of art.

The pod is vacuum formed like the Dick Vader pods featured in our last issue. In fact, Harry credits Vader with introducing him to the vacuum-forming process. Finch has written a very complete instructional article on the subject, and he's agreed to let us republish it. Originally, it ran in Jim Gray's newsletter, R/C Soaring Digest.

We went flying one Saturday afternoon with Harry at the Yorba Linda club's hill, and after just about twisting the focus ring off our trusty

200mm Nikon lens, we can attest to the plane's maneuverability!

The anhedral wing looks odd, at least until we began comparing it with the soaring birds that joined us on the hill. Then it looked more at home than the dihedral- and polyhedralwinged models. The anhedral wing provides excellent low-speed handling characteristics, yet it didn't prevent Harry from performing a series of highspeed strafing runs over our nervous photographer's head. The plane's speed may be due to the thinned Jack Chambers JC-20 airfoil. Chambers designed the 'foil at only seven percent thickness, but Harry went even thinner at five percent!

Is anyone else experimenting with anhedral designs out there? If so, we'd like to hear from you!

#### WE'RE TALKING FAST!

It's one of the fastest planes up there," John Veale explained as we watched his partner Ray Kuntz guide the sleek, mas sive Titan III slope racer back and forth along the Hughes Hill ridge line. We had just asked him about their chances at the upcoming International Slope Race. "The plane is certainly competitive," Veale stated. "Now we need the [flying] experience."

Nine pounds of sailplane swooshed past in front of us again and banked sharply into the turn. The wings bowed, then snapped back, launching the eight-foot sailplane back down the slope. It flies on vacuumbagged (fiberglassed) foam wings with a modified Epem bits and pieces from the world of slope soaring.



Can the Kuntz/Veale Titan III win at the Los Banos ISR? A pair of Hughes Hill regulars have put two years of development into this sleek slope racer. They'll go up against the best on October 22-23 in the South Bay Soaring Society's International Slope Race.

pler 374 airfoil. Modified? In what way? Thinned? "Just modified," Ray Kuntz replied with the small smile of a man with a secret

The plane actually weighs nine pounds without ballast, a fact that impressed us, fliers of 10-ounce Vader planes, immensely. And it's built to be ballasted to 11 pounds, the legal maximum for slope racing. According to Veale, the lightest wing loading with the Titan III is a hefty 16 ounces per square foot. Again, we made mental comparisons to our six- to eight-ounce wing-loaded pod planes.

plane light is the tail. In-Weight is not added without careful considerastead of fully 'glassed stab tion, however. Why put surfaces, the Titan III's tail lead in the plane when a is made from a single layer 1200 mah battery could be of fiberglass sandwiched between two balsa sheets. used to help assure a problem-free day at the The Titan III is a very imraces? Why use lead when pressive sailplane. When it carbon fiber, or extra resin goes head-to-head with the or 5/16-inch high-strength best slope racers in Califoralloy wing rods could innia at the October 22-23 crease wing loading (and ISR, we're definitely going speed) while adding structo be there. How about you?

lead can be added when conditions dictate. One area where they con-

F3B TECHNOLOGY: THE LEADING EDGE

centrated on making the

International F3B sailplane competition is responsible

Fiberglass, carbon fiber and aerodynamic excellence.

Got an extra \$800 and a yen to go fast? Perhaps these German Albatros models are for you - ultra-sleek, super-strong and with control-surface mixes you won't believe. The bottoms of these wings are black. It's not paint. It's pure carbon fiber. When "zoom launched" and fully ballasted for the speed run, strength is mandatory.

tural strength? The Titan

III does have ballast holds,

one in each wing, located at

the center of lift, where



#### Scraps

for most of the advanced sailplane construction technology that's being discovered today. The multitask events demand the maximum from both plane and pilot. Three tasks are flown: duration, distance and speed. All must be flown with one airplane, and that's what creates the very demanding set of requirements. Unlike slope racing where the planes just have to be fast and



Look, Ma! No horns! The rudder is taped on the left side: its width is the length of the internal horn. (RIGHT) The radio gear fits into a "keel." Then, the nosecone slips over.

Rich Spicer's Synergy Ills were awesome! The latest version of the Synergy line is smaller than previous models due to new winch rules. It's an all-fiberglass ship; even the wings are formed in a mold, like the fuselage. Super strong, super aerodynamic. Note the Schuemann wing design. All trailing edges are razor sharp.



subject you to all the details of the contest itself, but when the best in the U.S. gathered to compete, we knew there'd be some killer sailplanes just lying around waiting to be admired. We'll let the pictures and captions speak for themsel-

maneuverable, an F3B ship

mal and to establish a very

good (flat, fast) glide ratio

Since this is a slope soar-

for the distance segment.

ing publication, we won't

must also be able to ther-

#### CHARTER MEMBERS

Thank you! That's to all of you who have ordered your subscriptions to SSN. We appreciate your support. We extended our 13-issue special offer, by the way, to include all who subscribed before this second issue went to the printer. If you received this copy in the mail, you still have 12 more coming before your sub runs out. Again, thanks!

#### WILSHIRE'S MOVING

Bob Ratzlaff and Vince Parizek are moving in together. (Oops, that didn't come out right. Let's try again.) Wilshire Model

Center and Santa Monica Sailplanes, featured in issue number one of SSN, are combining forces, this time under the same roof. (There, that's better.) The new location hasn't been es-



tablished yet, but they're looking in the Culver City/Marina del Rev area. The move is scheduled for early next year. If you'd like to be notified when they move, send your name and address to Wilshire Model Center, 2836 Santa Monica Blvd., Santa Monica, CA 90404 and get on their list!

#### INTERNATIONAL SLOPE RACE SET AT LOS BANOS

The South Bay Soaring Society will host their annual International Slope Race on October 22-23 at the Los Banos flying site. The site is located near I-5 and route 152 at the San Luis Reservoir Recreational Area. The fun begins at around 9:00 a.m. each day, entry fee is \$6 for competitors and spectators get in for free. Contact Contest Director George Paige at 415/325-7543 or Competition Chairman Michael Forster at 415/831-3834.



#### Air Mail

#### R/C SOARING DIGEST

I enjoyed your first issue immensely and plan to recommend Slope Soaring News to my readers.

Congratulations and best of luck. Save extra copies of the first issue; they'll be valuable in the future.

Jim Gray R/C Soaring Digest 210 East Chateau Circle Payson, AZ 85541 602/474-5015

Thanks, Jim. We've printed your address in case some of our readers aren't aware of R/C Soaring Digest. (RCSD is a aspects of R/C soaring.) - Charlie.

#### MODEL AVIATION

Congratulations on an outstanding issue of Slope Soaring News. It is the dreams, effort and accomplishments of people like yourselves that will help know what you're talking about, and bring slope soaring to the forefront of we're prepared to stick it out. R/C aviation.

California is undoubtedly the slope live here continually preach. But with the work that you are doing with SSN and with my column in MA, we have the power to show the rest of the nation and the world what this sport is really about.

If there is anything I can do to help you with Slope Soaring News, just let me know. I'll let all the readers of Model Aviation know about it in my next column and, with your permission, I'd like to hand out copies of your back page (subscription form) at sites and clubs here in Northern California.

Mark Triebes 20794 Kreisler Court Saratoga, CA 95070

Most readers probably know that Mark writes the first and only slope soaring column in an American magazine, the Academy of Model Aviation's publication, Model Aviation. Along with the insurance package, it's another excellent reason for slope soaring enthusiasts to join. Mark also has produced a line of sources. - Charlie. kits which, hopefully, we'll soon see in SSN. (Hint, hint, hint. That's a reminder, Mark. Did you remember to send out those pictures?) - Charlie.

#### R/C MODELER

Congratulations on a workmanlike publication. I think the first issue is great! If three years. you can hold out with no income for a year and work your tails off in the meantime, you can't miss.

I'd be glad to give you a boost in my RCM column, but I don't write it anymore. Nine years is enough. I don't too. Thanks for your support! - Charlie. know who they'll get to write it now, but I'm sure you'll find him cooperative. Best of luck.

Al Doig R/C Modeler Magazine Sierra Madre, CA

Thanks, Al. We've figured that it'll take somewhere between 200-300 subscribers monthly newsletter that deals with all to pay the printing and mailing bills. We've also had some encouraging phone and letter conversations with the people from Cheetah, SR Batteries and Cox Hobbies concerning advertising. (Note the SR ad running this month.) But you're right, the first year is rough. This'll be my fourth publication "launch" so I

You know, if you should get bored in your "retirement," there's always space in capital of the world, as those of us who SSN for some words of wisdom. Howzat! - Charlie.

#### **BUDDY-BOX MODS**

I have modified some two-channel transmitters for buddy-box use and also for some third function like spoilers, noisemaker or lights. Interested in a construction article?

Do you have an editor in Northern California, vet?

Rich Neveln Oakland, CA

Absolutely! That buddy-box setup (where an instructor's transmitter can be plugged into a learner's with override ability) could save a lot of brand-new slope planes.

No, we don't have a NorCal editor. We'd like to, of course, but it's a no-income position (just like the SoCal editor's job), and nobody's volunteered. We welcome contributions from all

#### DR. DENNIS

Thanks for Slope Soaring News. This is

just what the doctor ordered. Enclosed is a check for \$47.85. Put me down for

Lloyd Dennis Los Angeles, CA

You're welcome, Lloyd. Your subscription just helped make SSN a lot healthier.

#### SOUTH BAY'S SLOPE RACE

There are quite a few slopers in our club, the South Bay Soaring Society, both sport and race fliers. We fly at Coyote Hills, Sunset Beach and Davenport Beach.

In California, and maybe in Washington, we've organized an F3F slope race group to go to Denmark to compete in an international event. I'll send more info if you want it.

Our annual International Slope Race is another event you may be interested in. It's on October 22-23 this year.

John Dvorak San Jose, CA

A couple weeks after receiving this letter, I met John at the F3B meet at the SULA field in Carson. We definitely will cover the SBSS's International Slope Race. How about it, readers? See you

#### Want Ads

#### THE FRENCH FLYER

Sensational easy-to-fly 36" wingeron. Complete with two standard servos. Only 16 oz. ready to fly. \$85. (2-4 channel receiver required.) Greg French 213/597-6346. (10-11/88)

#### CANNON MICRO SYSTEM

Four-channel Cannon micro Tx, twochannel micro Rx, two micro servos. No battery pack or wiring harness. Transmitter pot needs cleaning or repair(?). \$150, as is. Charlie Morey, 213/494-3712

#### YOUR WANT AD HERE!

SSN Want-Ad rates Per word charge - 25 cents. Minimum charge - \$5.00 Bold Headline\* - \$1.00 Total the amount, then multiply times

number of issues ad will run. (\*20 characters maximum)

15







#### Coming Soon in Slope Soaring News!

Check it out!

All The News From California's Finest Slope Sites!
Learn All About Advanced Radio Techniques!
High-Performance, High-Tech Slope Ships!
How To Build A Fiberglass Fuselage!
Vacuum Forming Process Shown!
Wing Bagging Explained!
Building Techniques!
Scale Sailplanes!
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Fun!

(pssst...only \$15.95 a year.)

Name	Age Male Female
Address	No. of planes ownedNo. of radios?
City	State Zip code
I'm interested in Building techniques Flying tec Scale sailplanes Combat Power scale Other?	chniques Planes and the people who design them _F3B-style planes

Mail to Slope Soaring News, 2601 E. 19th St., #29, Signal Hill, CA 90804. Check or money order only, please. PLEASE MAKE CHECKS PAYABLE TO "CHARLES MOREY," NOT "SLOPE SOARING NEWS." THANKS!

### Eagle Tree Systems

Dual Mode MicroSensors<sup>TM</sup>

Our tiny new Airspeed and Altitude MicroSensors work standalone with no additional equipment required, as well revving up your eLogger and PowerPanel LCD for full data logging. For standalone mode, simply plug the sensors into a spare receiver channel or small battery (3V to 16V) and fly your model. When you land, your maximum altitude or airspeed will display on the built-in 7 segment LED. If you flew to 281 feet, the unit displays "2 - 8 - 1" repeatedly. No configuration, additional equipment, or computer required! Or, connect your MicrosensorTM V3 to any of our eLogger products for full logging and graphing of your flight's speed or altitude!

#### Altimeter Microsensor<sup>TM</sup> V3

- \* Lowest cost standalone Altimeter on the market!
- \* Aproximately 3 foot (1 meter) resolution
- \* Weight 4 grams (0.15 oz)
- \* Precalibrated no user calibration required
- \* Accessible static port
- \* Metric or English units

Price: \$37.99

#### Airspeed Microsensor<sup>TM</sup> V3

- \* Lowest cost standalone Airspeed sensor on the market!
- \* Measures from approximately 2 MPH to 350 MPH
- \* Weight 4 grams (0.15 oz)
- \* Includes pitot tube
- \* Accessible static port
- \* Precalibrated no user calibration required
- \* Metric or English units

Price: \$42.99

<a href="http://www.eagletreesystems.com">http://www.eagletreesystems.com</a>

#### "I'm bringin' her in, Dad."

This photo was taken during our Tidewater Model Soaring Society Eastern Soaring League Spring Challenge contest on May 17. A little background to go with it:

Josh Glaab Jr has been flying, off and on, for a couple of years now. He flys a bunch of Air Hog planes, soloed his sailplane last October at the ESL's End of Season contest. The Sovereign V-tail 2-Meter is his plane and he has had it "tricked out" for an 8 year old.

He calls the Sovereign Piccachu, after one of the main Pokemon characters. It is covered in yellow Monokote with black accents to look like Piccachu. We have even installed a Piccachu noisemaker that is activated from a switch on the Tx. Josh even requested a bomb-rack be installed and we have practiced bombing the spot landing tapes. Unfortunately, our aim is a little off and we tend to loose our ordnance rather quickly.

I think this year will be a good one for Josh and he is registered for the NATS.

The photographer is Trish Glaab, Josh's mom and my wife (who used to fly herself a few years ago).

Josh Glaab Sr.

