

# Silent Knights Soaring News

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Editor's Note: Sorry we missed the January issue – lack of contributors. Please email me with items you would like to share to ensure July and October issues.

## Presidents

"Well another new year! I'm really looking forward to flying. Warm weather can't get here fast enough! The last time I flew I did some slope flying and it was cold. My fingers are still numb.

We've got a couple of electric/soaring fun flys on the schedule as well as our usual ESL soaring contest. These have been popular in the past and are a lot of fun. The fun fly events will also include a swap meet. So start thinking about cleaning out the closet. The ESL contest will need a lot of workers. In the past we've had to recruit help from the outside. Frankly, this is embarrassing. Please think about coming out to support your club, sailplane and electric flyers both. You don't need experience, we'll show you everything you need to know. This is a money making event and we need your support.

We're going to have a "Clean the Birdhouse" day on April 24th. We're also going to clean up the launch wagons and golf cart so we're ready for the season. Please come and bring a broom!

We've purchased some altimeters for altitude contests. Something new this year. Small enough to go in just about any plane, they plug into your receiver. There's a digital readout so you can see how high you flew once you land. While the details haven't been hammered out, basically you'll have a certain amount of time to get as high as you can. So you don't need a plane that can zoom off the winch and you don't have to slam you plane into the ground at exactly the right time. I know there are alot of you that don't want to zoom and then spear your plane into the ground. This will be a contest for you. Just about any plane can speck out in a thermal whether it's a \$50 or \$1000 plane. I've had one of these altimeters for a while now and they're a lot of fun.

I hope to see you all soon. Whether it's at the cleanup, fun fly, contest, or just out flying.  
Terry. "

**ALWAYS USE FREQUENCY PINS!!!!!!**

## Sailplanes and More

Warm weather is almost here  
and for many (most??) it is time

### Silent Knights Soaring Society

President – Terry Lisansky  
Vice President – Tom Sutor  
Treasurer – Robert McCoy  
Secretary – Robert Jones  
News Editor – Bob Bickerton

AMA Chartered Club # 950

for getting the planes out, charging batteries, checking transmitters and generally getting ready for the flying season. Some, however, fly anytime they get the chance. One of those is Jim Faassen and he tells us his adventures after a flying session last December.

## The Making of a Hybrid

*Jim Faassen*

Last December John Lane, Gerald Terfloth and I were flying sailplanes, with Bill Groft as a witness. My plane was in a thermal at the north end of the field, where the visibility was less than perfect. I was losing sight of it on the back side of the turns, and then picking it up again as it rounded the corner. On one such turn it took a bit longer for "it" to show up again, but "it" finally did, and I continued the flight. So, when Bill Groft said "Jim, your plane is going down", I was thinking, no, it must be Gerald's plane, because "mine" was acting just like it should with the inputs from my transmitter. Not until my real plane was in the briar patch was I convinced that I had been flying Gerald's.

This was the older of two Zeniths of mine, and it had seen some crackups before, but none like this one. Bill had marked where it went in and he kindly retrieved it for me, suffering no more than 2<sup>nd</sup> degree lacerations from the briars. The molded wing of the plane was ripped open by the tree limbs in six spots, from the leading edge to the spar. None of the three wing panels escaped. I wrote it off at first glance. The fuse, though suffered only minor damage and looked to be easily restored. The tail was unscathed.

On pondering the next move, it occurred to me that a Super Mantis wing, which is the same length as the Zenith's, might be a viable graft onto the Zenith fuse. Lo and behold, Bill said he was holding such a wing for Joe Melchiorre, who was looking to sell it. I sent Joe a New Years check. Some measurements showed the new wing had a longer chord than the Zenith's, with wider flaps, so the flaps would surely drag the ground if I landed without remembering to raise them. This led me to raise the wing saddle on the Zenith fuse a half inch or so. For this, I used layers of 1/8 inch balsa, added one at a time to preserve the saddle contour. The resulting raised saddle fit the Mantis wing so closely that I did not bother to shape it further. How much difference can there be between the Drela airfoil and the old Quabeck?

On a real Mantis, the wing is mounted on a pylon sufficiently high that the flaps, when lowered, clear the fuse itself, to say nothing of clearing the ground. This wasn't going to work with the Zenith fuse, so I had to remove an inch or so of each flap at the center. Also, on a Mantis the wing is mounted with a single bolt, around which it is free to pivot if it gets dinged on landing. I did not want any pivoting on my wing, as the flaps would catch the fuse and mess something up. So, I added a second bolt, this one nylon, to discourage any of that pivoting business.

The new hybrid plane, now a Zentis, weighs in at 71 ounces, which makes it a few ounces heavier than the Super Mantis. It flies faster than the Zenith, and probably slightly faster than the Super Mantis, but it does not seem to have any bad habits. It launches well and, in the first outing, got a good rise out of a thermal which John Lane had found for me. Further assessments await future outings and optimizing trims.

But, wait - this story does not end here. Ever one to accept a challenge, John Lane took the beat up Zenith wing and somehow got it back in flying shape. Now, he's assembling a Luckenback Super Mantis fuse and tail to mate with the wing. One of these days John will have his own hybrid, which hopefully will still stand up to a winch launch. If my plane is a Zentis, will John's be a – Manzen?

**Electric Corner**

The introduction of more and more, and less expensive brushless motors is continuing at a record pace. In addition to the Hacker's, Kontronix and Aveox' we've become familiar with we now have Axi, Razor, Ultrafly, Ammo, Mega, LittleScreamers, HiMaxx, Actro and many others including the new EFlite motors which we reported on an issue or so ago. Not to miss the 'outrunner' bonanza, EFlite (Horizon Hobbies) has recently introduced their own outrunner motors and a new EFlite/Hacker. Middletown Electronics and Hobbies/Radio Shack stocks the EFlite motors and provided a couple samples of the new outrunners for Jack Alderson and me to test. There are two versions, both called EFlite Park 370; one is for 2 LiPo cells only (Kv=1360) and the other is for 2 or 3 LiPo cells (Kv=1080). They retail for \$59.00 and are quite nicely made. Each motor includes a mounting plate, 3 2mm gold plated connectors, and a prop hub. Being outrunners they are intended for direct drive and, as you can see in the table below, they perform very well. And, they are quiet while running. Our testing was carried out similarly to our other tests: Jack supplied the planes, motor and batteries, grandson John was the venerable test pilot and I supplied the tach and Wattmeter. We took some readings with freshly charged batteries and then again after John had flown a couple of minutes of 3D stuff; it was a little windy but young John was up to the task. Our conclusion is that these are remarkable little brushless motors at a great price. So get on down to Middletown and pick one up. [Ed. Note: After this was written EFlite introduced a slightly larger EFlite Park 400 outrunner as well. Haven't tested it yet but expect it will perform as well as the slightly smaller versions]

**EFLITE PARK 370 MOTOR TESTS**

Motor cells/prop	Volts	RPM	Amps	Watts
1360 KV 2 c/9x3.8				
Fresh	8	6300	7.9	63.2
After 2 min	8	6200	7.9	63.2
1080 Kv 2 c/9x3.8				
Fresh	8.3	7500	4.9	40.67
After 2 min	8.2	6000	4.7	38.54
1080 Kv 3 c/8x3.8				
Fresh	11	8100	7.2	79.2
After 2 min	11.1	8100	7.1	78.81

## EFlite Park 370 (2 cell) Out runner with Kv of 1360

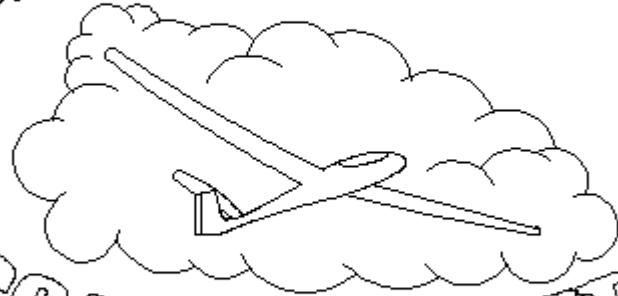


### **HOW TO: Preparing Balsa for painting with water based acrylic (craft) paints.**

Scott Christensen, a manager at Sig, recently became involved in building small (14" wingspan), scale, R/C models and did some

searching for finishing methods on bare balsa that looked realistic. Balsa wood (most of us remember what that is!!) warps when exposed to water and this is really important when you work with 1/32" thick sheet as he did. After some searching, he discovered that Delta Stencil Magic Top Coat Satin Spray (available in Walmarts and Craft stores) is an ideal preparation. He cuts his parts out, coats them with 2 light coats of Stencil Magic, sands with 400 grit sandpaper after each coat, then masks and paints them with airbrushed inexpensive craft paints which are diluted 50/50 with tapwater. No warps!!! And, when overcoated with Delta gloss varnish (also water soluble) a nice finish as well. Water soluble craft paints are inexpensive and come in a wide variety of colors so if you have a need to paint some balsa give this stuff a try. I did and it works great. Scott's Waco SRE and Beech Staggerwing are masterpieces (go to [www.slowfly.com](http://www.slowfly.com), click on 'forums' then on 'pictures' and find Scotts micro scale models. I think they're magnificent AND they're not hangar queens, he routinely flies them.

SILENT KNIGHTS



SOARING SOCIETY

# Silent Knights Soaring Society 2005 Calendar of Events

## Spring Clean-Up at the Bird House

April 24, 2005 at 10:00 AM

## Regularly Scheduled meetings.

March 8, 2005 (at EF Technologies at 7:30 PM)

April 9, 2005 (at the field: 10:30 AM)

May 14, 2005 (same)

June 11, 2005 (same)

July 9, 2005 (same)

August 13, 2005 (same)

September 10, 2005 (same)

October 11, 2005 (same)

November 8, 2005 (at EF Technologies at 7:30 PM)

## Fun Fly/Swap Meets

May 15, 2005

September 25, 2005 (note both are on Sunday)

## SKSS hosted ESL contest

June 11 and 12, 2005