



# The Flightline



Volume 36, Issue 4

Newsletter of the Propstoppers RC Club

AMA 1042

April 2006

## President's Message

Well, April sure arrived fast. Indoor flying is all wrapped up for the season. What a great year for the indoor events. More and more people are getting into the small electric planes and helicopters. What a blast!!

The club picnic will be June 17th, the third Saturday of the month. It will be at Sleighton Field.

The Walt Bryant Memorial Fun Fly will be held on August 12th. This will also be at Sleighton field.

Starting in June, and going through September, the club meetings (Wednesday's) will be at Sleighton Field. I have been working with the Township to try to gain approval to fly gas planes on Wednesday's, along with Saturdays. This should be a great improvement in flying time for fuel planes at this field.

The paperwork has been turned in for the new Smedley Field. It is now in the hands of the Township. I will keep you posted on this.

All "show & tells" will be welcome for the April meeting. The Library would like to have the showcase cleaned out by Tuesday, March 22. The breakfast club will be handling this, and will bring everything to the meeting to be returned. The Library staff was pleased with our efforts and I would like to thank the members who participated.

We have been asked to participate in the Middletown Pride Day celebration to be held at the Williamson Trade School on Saturday 13<sup>th</sup> May. Come to the April meeting and let's discuss what we may do there. We might fly both indoors in their gym and outdoors with helicopters and maybe airplanes too as well as man a booth advertising our activities.

The Christian Academy lock has been changed to the combination. Come to the meeting, or call me if you need the new combination.

We will plan the field spring fix-up days at the April meeting. We will borrow/rent farmer Dallat's heavy roller and plan to roll both fields. But timing will depend on the weather as you need the soil to be wet but not sloppy to get good results with a roller. So, get your rakes ready and volunteer when we ask for help in this once-a-year task. Please join us.

**Dick Seiwel, President**

### Agenda for April 5<sup>th</sup> Meeting Middletown Library 7:30 pm

- ? Approval of March meeting minutes
- ? Membership Report and Discussion
- ? Finance Report
- ? Flying Field Fix-Up Days
- ? Planning for Middletown Community Pride Day.
- ? Show and Tell

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*President and Field Minder Dick Seiwel on a typical "Field Day"*

## Calendar of Events

### Club Meetings

Regular Meeting 7:30 pm  
Wednesday 5th April, 2006  
Middletown Library  
Behind Weather's Dodge on Rt, 452

Tuesday Breakfast Meeting  
The Country Deli, Rt. 352 Glenn Mills  
9 till 10 am. Just show up.  
Flying afterwards at Sleighton Field

### Regular Club Flying

#### At Middletown / Sleighton Field

Monday - Friday;  
10 am until dusk - Electric Only  
Saturday  
10 - 3pm-for FUEL PLANES and  
10 - Dusk for Electric  
Sunday - 12 - Dusk - Electric Only

#### At Christian Academy; Electric Only

Monday through Friday after School till dusk  
Saturday 10 am till dusk  
Sunday, after Church; 12 pm till dusk

### Special Club Flying

Saturday mornings 10 am Sleighton Field  
Tuesday mornings 11 am Sleighton Field  
Thursday evenings 4:30 on, at CA field.

Note; only electric powered airplanes.  
Beginners using due caution and respecting club  
rules may fly GWS Slow Stick without instructors.

## Minutes of the Propstoppers Monthly Meeting March 1<sup>st</sup> at the Middletown Library

The meeting was called to order at 7:35 p.m.  
There were eleven members and two guests present.  
The minutes of the February meeting, as published in the newsletter, were accepted by the membership.  
In the absence of the Treasurer the report was read by the President.

### Old Business

There was no old business.

### New Business

It is time to begin planning for the Walt Bryan Electric Fun Fly and the Club Picnic. Preliminary dates of the second Saturday in August and the third weekend in June were proposed for these events. The final dates and the other details will be discussed at the April meeting. The Sleighton Field is the probable site for both activities.

Sleighton Field will be the site of the club monthly meetings from June through September.

It is thought that the possible reason for reduced attendance at monthly meetings is at least partly due to the change in meeting night from Tuesday to Wednesday.

Therefore, the President will negotiate for the use of the Library meeting room on the second Tuesday beginning with the October meeting.

### Show and Tell

Mick Harris expanded on the two club activities proposed by the absent Newsletter Editor in the last newsletter.

Dave had bought ten kits for the Cox Mini Fighters. These were distributed at the meeting to those who had asked for one. It is hoped that they will complete these models and fly them at the various weekend and evening flying sessions this summer.

Mick explained that the Earl Stahl Fokker D VIII has been selected as the special event model for the 2006 SAM Champs, to be held in Muncie, IN, in the fall. It has been suggested that this model be selected as a club one-design project. Mick showed the plan for this stick-built balsa model. About six members expressed interest in building one and it is hoped that the progress and experiences in building these models can be discussed at club monthly meetings as well as special build sessions if there is enough interest.

### Mick Harris for Secretary Richard Bartkowski



## Propstoppers RC Club of Delaware County, Pennsylvania.

### Club Officers

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Propstoppers Web Site; [www.propstoppers.org](http://www.propstoppers.org)  
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## More on Cox Micro Fighters



Mick Harris distributed the ten (initial ?) kits for the five different Micro Fighters at the March meeting. Upon my return from the UK I had a ton of chores to do but you know an unopened kit box is a magnet. Certainly the build is way down the list for me but it looked so neat that I just had to pop the top and examine the contents; wow, not much there, but what there is looks very nice.....hmmm.... Now what am I going to use for components? I would like to build it using equipment on-hand; I tend to order a few extras so I can usually do this.

The kit comes with the motor and prop, but you have to buy an ESC, a battery and, of course receiver and servos. I have enough servos and I suppose I could use the Berg Microstamp receiver and E-Cubed micro antenna.



**Berg Microstamp 4 Rx and E-Cubed Micro Antenna**

The Castle Creations Pixie 7P ESC is a favorite, and I have one of those too. But what about the battery? The kit calls for a six-cell 220 mah NiCad or two-cell 300 mah LiPoly. Mick had bought the NiCad pack on a visit to Penn Valley Hobbies, but I thought that it would produce a minimum flight time, and given that you are going to burry the battery in the fuselage and glue it shut, you will have to re-charge after each flight, battery change-out is impossible. (Well, you would have to do some re-engineering and that seems to defeat the thrust of this simple-to-build model). And the 220 NiCad vs. 300 LiPoly did not seem like a logical option as the weights must be very different and balance hard to achieve with the LiPoly. Worse, LiPoly batteries have to

be charged at a much slower rate than NiCad (at least most of them today fall in this category) so you still have the short flight time and charge at the field problem. So I set about looking at the various LiPoly batteries in my stash, but first I asked Mick to weigh his NiCad so I could worry the balance problem and select the maximum capacity battery that would fit. The NiCad weighs 1.4 ounces and fits the cavity ahead of the wing.



**Standard NiCad Battery Installation**

The LiPoly I bought and used in my late, lamented, UK Pylon racer is available (sob!) but it is a three-cell. Hmmm... Power corrupts, absolute power corrupts absolutely; but what is wrong with that when talking model airplanes... Will it fit?



**3 Cell 600 mah LiPoly Battery**

It looks like it could be made to fit, but how would the motor and prop match this significant increase in voltage? Need to do some experiments and see what the standard battery would produce and examine the alternatives. So I used my normal servo mounting trick of wrapping the motor with masking tape and glued it with medium CA to a test mount, then proceeded to measure the loaded voltage and current with the standard prop.

First problem I discovered was that the prop did not mount properly. When I pushed it onto the shaft, as described in the instructions (you did read them, didn't you?). The prop comes as an assembly with the spinner. Both parts seem to have a shaft-sized hole so they both grab the motor shaft. The trouble with my prop was the spinner hole and prop-hole did not line up and when the assembly was pushed home the prop ended up markedly out of square.

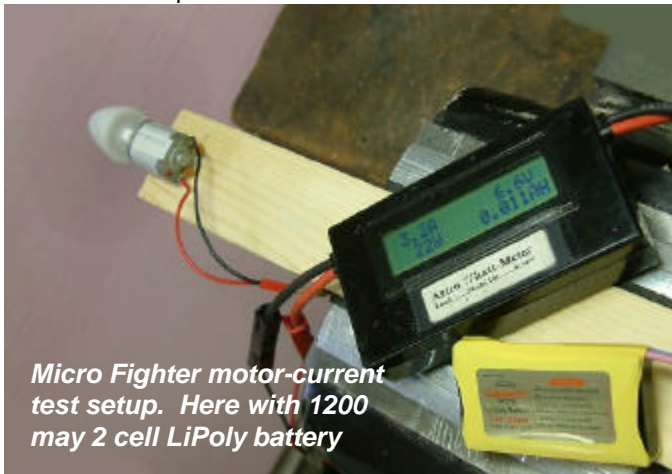


**Propeller Alignment Problem with Spitfire Spinner**

I have not yet examined the spare prop, but I recommend that you examine yours. It seems that the prop is glued to the spinner and my spinner backplate seems warped. It looks difficult to remove and re-align this setup, but we should compare notes and find a fix. The prop is a four-inch unit, maybe one of Cox's fine pieces, although the hub is much smaller than their gas props. But we must find a way to attach the spinner because this is one of the defining features of the Spitfire and P-51.

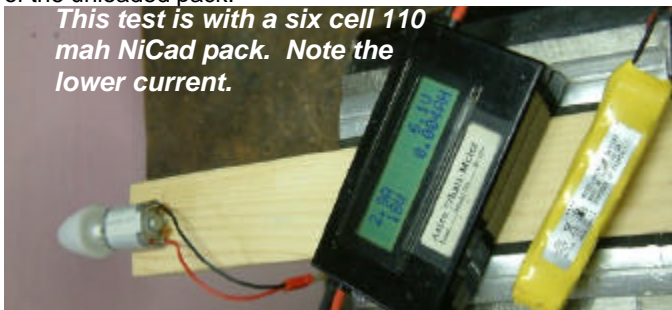
Anyway, I decided to continue with my motor tests and assess whether it affected the results.

As I did not have the specified NiCad I prepared two six-cell batteries on hand, a very old and worn out 1700 mah pack and a 110 mah old but unused one. I charged both of them to about half capacity and proceeded to measure the results. Then I tested with a 1200 mah Apache two-cell LiPoly before proceeding to the three-cell pack.



*Micro Fighter motor-current test setup. Here with 1200 mah 2 cell LiPoly battery*

The 110 mah pack is the closest to the specified 220 mah one and it measured 2.9 amps at 6.1 loaded volts, down from the 7.4 of the unloaded pack.



*This test is with a six cell 110 mah NiCad pack. Note the lower current.*

You see the battery internal resistance is a significant factor when matching batteries to the motor / prop installation and these small cells have high resistance. This was fully demonstrated by the old 1700 pack, which would hold less than 100 mah but still produced 3.8 amps at 7.7 volts. But this is not representative of the actual candidate batteries for this application. Next up was a 1200 mah Apache two-cell LiPoly two year old battery which is too big and heavy to be a flight candidate, but adequate for motor measurements. It produced 3.2 amps at 6.6 volts on a partially charged pack.

So it would seem that this motor operates at about three amps to maybe four amps on a fresh charge. But what about the 600 mah three-cell LiPoly? It can be made to fit and it is a little lighter than the standard NiCad pack, but the loaded test produced over five amps and some smell! The motor was hot

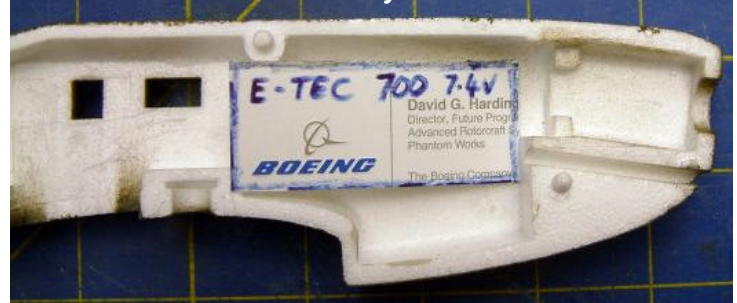
from a short run but I did not let the smoke out. Obviously this was not a match. But what about a smaller prop?

I cut ½ inch from the diameter and removed the spinner front-piece and tried again; still over 5 amps, probably because the vibration was reduced, so this is not a good fit without some more work on props. But if the right prop is found this would be a screamer.

Meanwhile I looked in the Balsa Products website for the best two-cell fit, and it seems to be the E-Tec 700 mah unit at 1.25 ounces and \$19.80. A simple cardboard template seems to indicate it will fit with a minor modification to the fuselage.



*E-Tec 2 Cell 700 mah LiPoly form factor fit.*



So there you have it. I haven't started the build but it really looks simple and with the 700 mah LiPoly battery pulling about three amps it should fly at full throttle for about 15 minutes and mixed flying twenty minutes or more compared to about four minutes with the specified NiCad. With this kind of endurance I found that flying my UK Pylon racer outdoors you would fly for five minutes or so, then take a break, then do it again and again. I never had to re-charge at the field, just charge when you get home and throw it in the trunk. This is one of the very good features of LiPoly batteries; they don't self-discharge. You charge them when you get home and they are ready to go even months later.

When do we need the completed fleet of these models? Well one possibility is for a demonstration at the Middletown Community Pride Day on 13<sup>th</sup> May, described elsewhere in this issue. I have suggested that we may want to do a variation on the "Mission to Berlin" that the North Jersey Flyers brought to the Walt Bryan Fun Fly a few years ago. I could fix up my old "Bristol Freighter" to look like a bomber and we could practice non-contact mass attacks with the fighters!

Meanwhile, Rick Grothman wants to buy another and others are interested in these exciting little models so call Rick soon if you want one and you can make another batch purchase.

**Dave Harding**

## UK Indoors and Out

When I visit my 90 year-old mother I slow right down to her speed. This allows me some time to do things like writing the newsletter or maintaining the SAM website and the occasional modeling endeavor. This trip I thought I might frame up a new electric Wakefield competition model and although I had the necessary tools and mum's dining room table was an adequate surface, I did not have any quality balsa. Not to worry, I would visit John and Pauline Hook of Flitehook, great British suppliers of quality modeling stuff via web/mail order. But I wondered if they also sold out of their home base as it is in Southampton, the great port city, and near my mother's. An inquiry to Pauline Hook suggested that they would be attending an indoor meet closer to my mother's, two days after my arrival. So I decided to go along, although I had nothing to fly. The Hooks go to many meets with excellent and comprehensive supplies in their van.



*Flitehook at a typical British indoor meet.*

They bring all sorts of goodies to these meets including basic materials and tools as well as RTF indoor models they buy from the Czech Republic. Indeed, they do a good deal of business with these Eastern European suppliers and last year we met at the Euro SAM Champs while they were visiting some of them. I needed contest quality balsa in three sizes and two densities and sure enough they had it. Well..... sort of had it, as all balsa and other materials are now sold in metric sizes. But 1.5 mm sheet is about .060 inches, close to 1/16 inch; .0625 in, and 3 and 6 mm are also close to 1/8 and 1/4, but they come in one meter length and who know what width; probably 100 mm. This just makes the weight per sheet to density equivalents more difficult to figure but lo and behold; John weighs every sheet and marks it accordingly; amazing! You may remember that the last time I bought a sheet of balsa from our LHS its density was almost 20 pounds per cubic foot, about the same as spruce; contest balsa is six to eight!

The Hooks also carry useful but hard to get stuff like Eastern-European-made double-edge razor blades. "Why" you ask? well, in the old days we cut our balsa with such blades but we broke them in half then again at an angle so we had a sharp point as well as an edge. The blades were very thin so you could cut cleanly, much better than the thick #11 blades we use now. "So what?" you ask, well when Gillette, or whomever, "improved" the double edge blade the bulk of it was made from stainless steel, a ductile material which does not fracture cleanly, so it was impossible to make the kind of blade we used. Some excellent balsa strippers were made to accept these "broken" blades and now we have no US source. I bought two boxes, one for me and one for my buddy Mick, who has such a stripper. (cue the music?)

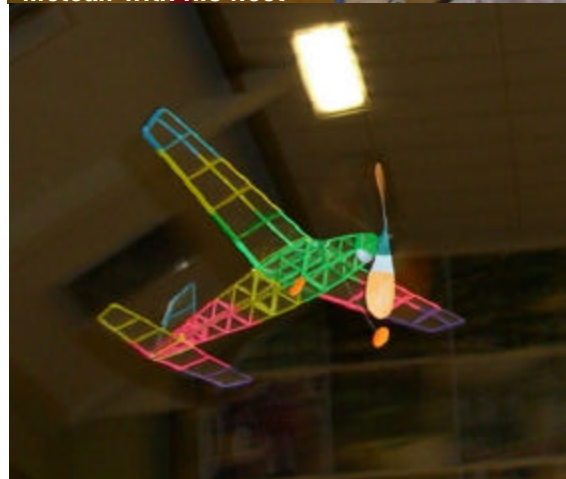
Flitehook also carry an extensive array of indoor RC gear including the excellent Falcon line, sold in this country by Bob Selman. Their latest servo weighs 1.6 grams. This is a real servo that you could plug into your GWS receiver, not a magnetic actuator. There was really too much good stuff; you know you have reached this point when you keep saying "I'll buy one of those, and one of those and..... until you go into saturation and say "never mind".

Anyway, there are many of these indoor meets in the UK and you find that they are so popular that they separate out to different types of flying on different nights. The meet I attended was

a freeflight meet and most of the airplanes were rubber powered. There were a few electric powered models but they tend to have a higher wing loading and therefore a higher speed and threaten the lighter rubber machines. There were several master modelers in attendance and one of them, Howard Metcalf had a whole fleet of different kinds of mostly rubber powered free flights.

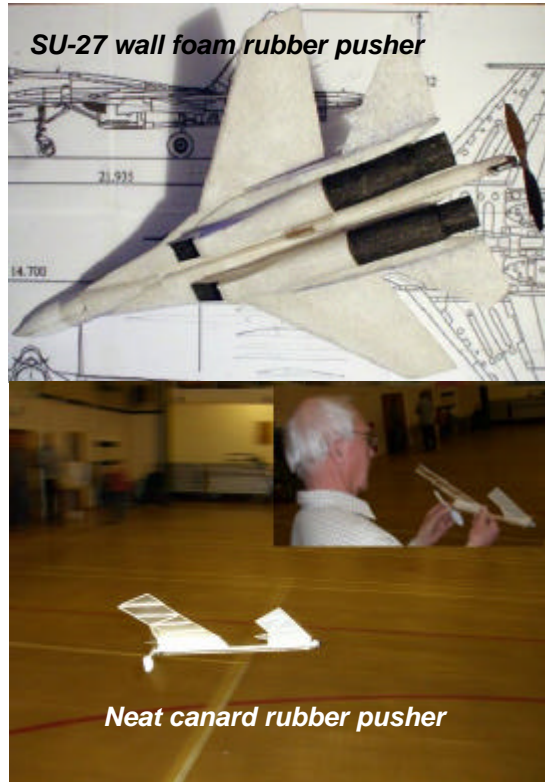


*Master Modeler Howard Metcalf with his fleet*



This simple little model stood out because he had colored the balsa with dayglo magic markers then covered it with slightly colored Saran Wrap, or the equivalent UK product.

Another of his outstanding models was a wall-foam model of an SU-27 with a rubber powered pusher prop. This model looked like the high performance fighter it is, but it was so light that it flew very slowly. It can be seen in the background of the picture where Howard is winding his small rubber model and shown here in the picture he provided to me. A construction article was published on this model in the British magazine AMI a few years ago. One of Howard's buddies, Robbin Tuff flew a neat little canard. Both of these guys use a winder fitted with a small digital calculator arranged such that each wind triggers a key and so displays the number of winds. Better yet, Howard sets the number he wants and it counts down!



All in all, a fun meet and I did get my balsa, although I slowed down with my mother so much that I did not accomplish any modeling, we substituted Pub lunches! Oh well, there is time yet.

#### Outdoors

I have written about the WWII activities from the Tangmere aerodrome near my mother's house in England. Tangmere was donated to the Ministry of War by the Earl of March from his vast south coast estate. Also on his estate are the Goodwood tracks, one for horse racing and the other used for motor racing through the late 60's. The motor racing track was one of Britain's most prominent in the after the war years although it was not improved to current standards and eventually vanished from the competition scene. Just prior to this time it became infamous as the site of Bruce McLaren's fatal accident and the career ending crash of Stirling Moss. I saw Stirling drive a Vanwall GP car win a race here in the late 50's.

In the last few years the current Earl of March, a died-in-the-wool motor racing enthusiast, instituted the Goodwood Festival of Speed, a non-competitive festival of noteworthy World Class old racing cars, bikes and drivers/riders; <http://www.goodwood.co.uk/fos/>. All are on display then driven up the Lord's driveway; a ¾ mile winding road where Formula-One cars reach high speeds. Within a few short years it has become arguably the premier event of its kind in the World. Such was its success that the Earl made improvements to the old racing circuit and instituted the Goodwood Revival meeting too. Similar to the Festival, this meeting includes demonstration "races" around the track. <http://www.goodwood.co.uk/revival/>

The track is now available for club events etc. and my brother, a life-long racer of one kind or another (he successfully competed in the Monte Carlo Rally in the 60's) has begun to race a car again. Last winter he had some engine work done and the vendor said he should break it in before the first race. Well, the first race was to be at the end of my stay so Alan arranged for a track day at Goodwood where "we" would run it. Wow, haven't done this since I fell off and broke my collar bone at Nelson Ledges twenty years ago or so; and at Goodwood yet! So we took the car to Goodwood where you sign up, then get an orientation with a subsequent ride around the track.



You can go as fast as you like but only overtake with the permission and cooperation of the car in front, and you are not supposed to spin off. Ok, fair enough but I haven't driven a car in anger for years. Alan took the first turn and the car behaved wonderfully. The engine pulled cleanly throughout the rev range with a nice smooth torque delivery and it handled well too. Soon it was my turn and after a few turns I began to pick it up. Modern tires with racing rubber not only have tremendous grip but that grip continues well beyond the point of sliding; once they are up to operating temperature. What fun, why did I stop doing this? Can't wait till the second period. Ok, here we go again, I know how to do this now; oops, spun out on the first lap! But I did remember "Spinning out, both feet out" and "Going to spin; both feet in". It went round beyond broadside but not completely around and I stayed on the track in a cloud of tire smoke. But no cigar, spin and out is their rule. It was a wonderful experience, and didn't Stirling Moss spin here too?

**Dave Harding**





## MIDDLETOWN TOWNSHIP COMMUNITY PRIDE DAY

AT  
WILLIAMSON FREE SCHOOL  
ROUTE 352, SOUTH

**SAT, MAY 13, 2006**  
**11AM - 4PM**

Rain or Shine

FOOD COURT ~ HAY & PONY RIDES ~ MUSIC ~  
FIRE ENGINE RIDES ~ CLOWNS ~ MOON  
BOUNCES ~ HISTORICAL REENACTMENT ~  
BEN FRANKLIN'S BIRTHDAY PARTY ~  
HISTORIC CARS ~ MOTORCYCLES ~ SPCA  
ANIMALS ~ CHIPS CHILD ID ~ FLEA MARKET  
**AND MUCH MORE!!!**

**COME OUT AND ENJOY  
THIS FREE  
COMMUNITY EVENT**

Call: 610-565-2700 FOR INFORMATION

SPONSORED BY: MIDDLETOWN TOWNSHIP  
PARKS & RECREATION DEPARTMENT  
IN CONJUNCTION WITH MIDDLETOWN BUSINESS ASSOCIATION

President Dick Seiwel has this vision of the Propstoppers club binding to Middletown Township such that we are perceived as a part of the Township's sport and community activities. If we can achieve this status then we might expect real support in the use of Township properties including flying fields and the meeting room. We have already made much progress along these lines what with the current Sleighton Middletown Field and the meeting room.

Our recent display in the Middletown Library was claimed as a great success by the library staff, in fact they said it had drawn more interest than any other recent display. They especially liked the models suspended from the ceiling, particularly Mick Harris' biplane "bones".

We are now presented with another opportunity as we have been invited to participate in the Middletown Community Pride Day event described above.

On Monday last, Dick, Dave Bevan and I visited the Williams school and met with Dennis Dragich, the person responsible for organizing the hosting of this affair in their grounds. We specifically wanted to explore just what space is available to us and thereby what kind of activity we might plan. Although they have a fine gymnasium they said it would not be available for indoor flying by they were quite excited about our putting on a static and flying display. We explained the kind of layout necessary to meet our flying safety standards and jointly concluded that the best place was the baseball field. If you examine the accompanying aerial photograph you can see the area in which we plan to fly. It will be overlooked by the spectator area on the hillside spilling

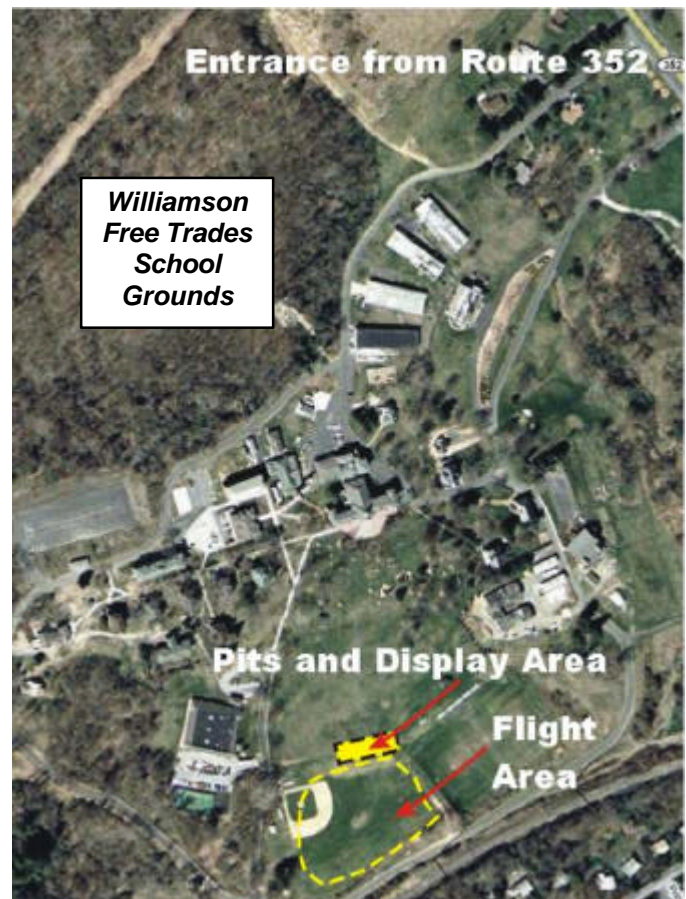
down to the field. We will be able to set up the big Subaru canopy and maybe the motor home to the north edge of the field and this will be our display and pit area. Flying of park flyers, helicopters of all size and maybe gas powered 3D type planes will be within the bounds of the ball field. This is really important as the field is bounded by a high chainlink fence on three sides, a batting cage area and, worst of all, a huge high-tension electric transmission line just off the southern boundary. Consequently we will only encourage skilled flyers to participate in the flying aspect of our activities.

Dick will also explore whether the Alpha Demonstration Squadron would be able and willing to put on a demonstration from this small field. Might be quite a sight if we can get them.

Since this whole area is far removed from any housing we asked about running engines for demonstration and Mr. Dragich said "why not". So if anyone wants to run something interesting, like my Ohlsson 60's ignition engines, bring them along together with the required support equipment.

We will need members to bring models for the display and help answer questions and sign up new members, so don't be bashful, sign up. As for flying, how about the new fleet of Cox Micro Fighters? Might be just the ticket.

Come to the April meeting and discuss our plan.



**Dave Harding**

Dave Harding – Editor  
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Brookhaven, Pa. 19015  
610-872-1457

# Propstoppers R.C. M.A.C



Propstopper Charlie Storm is a Snowbird, he winters in Cape Coral, Florida, where he is a member of the very active Cape Coral Seahawks Model Airplane Club. The club has 320 members and a magnificent field on city property. The field has a paved runway and excellent shelter.

Each year they host a Giant Scale meet "The Gathering of the Giants" that is heavily promoted by the city and the local press. Charlie sent me some press

clippings describing the buildup and the reporting on the meet.

They get as many as 5000 paying spectators and use the funds to contribute to two area charities.

In the last decade they have invested over \$50,000 in developing their field and now the city park service is planning a significant expansion of the park where the field is located. Unlike our past experience, their field is an integral part of this expansion.

From Charlie Storm, our Florida Correspondent

## Membership Renewal For 2006

**Membership renewal for 2006 is now due.**  
**You can renew by mail or at the club**  
**meeting in**  
**April.**

**Dues are \$60.**

Ray Wopatek  
1004 Green Lane  
Secane, PA. 9018

Please enclose a **copy** of your current  
A. M. A. Membership card,

**And Please, Please enclose a**  
**Stamped self-addressed envelope.**

Ray Wopatek Membership Chairman