



The Flightline



Volume 36, Issue 11

Newsletter of the Propstoppers RC Club

AMA 1042 November 2006

President's Message

Well first of all I'd like to thank all who attended the Oct. meeting and elected the new board. I'd like to thank Phil Oettinger for volunteering to be our treasurer, and the rest for continuing on.

At the last meeting the board also asked Ray to continue being membership chairman, and Jess to continue to serve as field safety officer which they both agreed. Let me add one note about safety when were at the field and **Jess is not** we are all **safety officers** We must **fly on the field** away from the horses.

Hopefully you all had a nice time Nov 3 at the gym.

Please give it some thought for a club plane or something to build over the winter.

This would be the month for show 'n tell. Or if you have questions bring them to the meeting I'm sure they will be answered.

I think it would be great to pick out an Old-Timer plane for a club project with a speed 400 or 600 and the right battery pack to be picked out by the members. Let's have some fun

Well hope to see you at the meeting

Dick Seiwell, President

Agenda for November 14th Meeting At Middletown Township Library Opens at 7pm meeting at 7:30 pm

1. Approval of the October Meeting Minutes
2. Membership Report
3. Flying Field Status
4. Finance Report
5. Plan for Indoor Flying
6. Show and Tell

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Minutes of the Propstoppers Model Airplane Club

October 10th 2006 at the Middletown Library

The meeting was called to order at 7:30 p.m. by President Dick Seiwell.

The roll-call by Ray Wopatek showed 18 members and 3 guests present.

The treasurer's report by Jim Barrow was received and accepted by the membership. He also submitted a proposed budget for 2007 which would set dues at \$60 per member. This was moved and accepted by the membership.

Minutes of the September meeting as published were moved and accepted.

Old Business:

Nominations for next year's officers were opened to the membership. Nominees who accepted are:

- Treasurer: Phil Oettinger
- Secretary: Dick Bartkowski
- Vice President: Dave Bevan
- President: Dick Seiwell

There being no more nominations, the proceedings was closed. Since no one was opposed, the nominated group was accepted by acclamation.

President Seiwell talked about the tenuous position of our fields and the possibilities for the future.

Mike Black confirmed that we have the Tinicum Elementary school gym on the first Friday of November through March for indoor flying. This year we will be able to use the gym from 6:30 to 9:00 p.m..

Dave Bevan spoke about the activities that will take place at Rotorfest this weekend.

Dick Bartkowski reminded us that the indoor season is coming and there are a variety of ready built small R.C. planes and helicopters available at several outlets including Wal-Mart, Radio Shack and mail order.

New Business:

Dave Bevan announced that he is again advising a Widener college student engineering teams for an aviation contest. They have entered a heavy lift contest sponsored by S A E. This will pit them against teams from all over the world. Dave pointed out that last year they finished in sixth position.

Show and Tell:

Phil Oettinger showed a Hobby lobby electric helicopter with a gyro and 3S LiPo power. He practiced on a G3 simulator and then flew it right out of the box.

Mike Black showed a Radix 3D light weight biplane with outrunner brushless motor and 2 S LiPo electric power. He is getting it ready for the indoor season.

The meeting was adjourned at 8:45 p.m.

Richard Bartkowski, Secretary

Calendar of Events

Club Meetings

Regular Meeting at Middletown Township
Library: opens 7 pm, meeting 7:30 pm
Tuesday 14th November, 2006

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

Indoor Flying

At Tinicum School; Fridays, Dec. 1,
Jan. 5, Feb 2 and Mar. 2

Special Club Flying

Saturday mornings 10 am Sleighton Field
Tuesday mornings 11 am Sleighton Field

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



Phil Oettinger with
his Hobby lobby
electric helicopter
with a gyro and 3S
LiPo power



Mike Black with his Radix 3D light
weight biplane with outrunner
brushless motor and 2 S LiPo
electric power

Propstoppers RC Club of Delaware County, Pennsylvania.

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Thanks to Bob Kuhn, Pioneer Propstoppers Webmaster

The club owes a vote of thanks to retiring webmaster Bob Kuhn. Bob has been a member for some years and counted himself among the group of early electric flyers. Bob's interest was mostly with gliders and he flew regularly at the old Dallett field. When the club began to think about a website Bob stepped up and volunteered to do it. He made all the arrangements to acquire the URL; Propstoppers.org, contract for the hosting and then he set about designing and maintaining the site. What you see today is still basically the site that Bob put in place for us and maintained as our needs changed. But now Bob finds himself more and more engaged in other activities and he has reluctantly concluded it is time to move on. He is retiring from modeling altogether. So a warm vote of thanks is due to Bob and best wishes in his new endeavors.

Field Matters

By President Dick Seiwell

Here is the field situation as I see it today. First, Christian Academy field has been sold, perhaps to another school. So at this point we will be scheduled to lose it at the end of the year. We may be able to make similar arrangements with the new owners, but this is a complete unknown.

Sleighton Field, as you know, is planned as a "world class soccer facility" according to the Middletown Township recreation officials, but timing is the issue. One official says this will happen soon, another says not for a very long time. So we have the field now and should expect notice of when they plan to begin development. It probably takes a long time between developing a plan, then finding and committing the funds and eventually starting work. So the notice should be a fairly long time, giving us an opportunity to make new plans ourselves.

But, as we all know, our options for fields are few. However, I continue to talk with the Middletown officials about our use of the Smedley property adjacent to Granite Run Mall.

Recently the farmer, yes the one involved in our subplot of the old Sleighton field, harvested the corn in these fields. The field I think would be best for us on the basis of distance from potential noise complainers; i.e. the High Rent District, is the one closest to the Mall. It is bounded by Middletown Road and Rose Tree Road, both very busy and noisy. That is good news and bad. The good news is that the traffic noise would drown anything we are likely to make with electrics and glow powered helicopters, on the other hand, anything we put on one of those roads has the potential of causing real trouble.

The field is smaller than either Sleighton or Christian Academy, but if we site the runway and pits as shown in the picture we would fly over the field with additional buffers over the second Smedley field and the woods that are part of the property. Oh, yes, there is this BIG tower located at the sharp end of the Christian Academy arrow in the picture to the right. Better not hit that either.

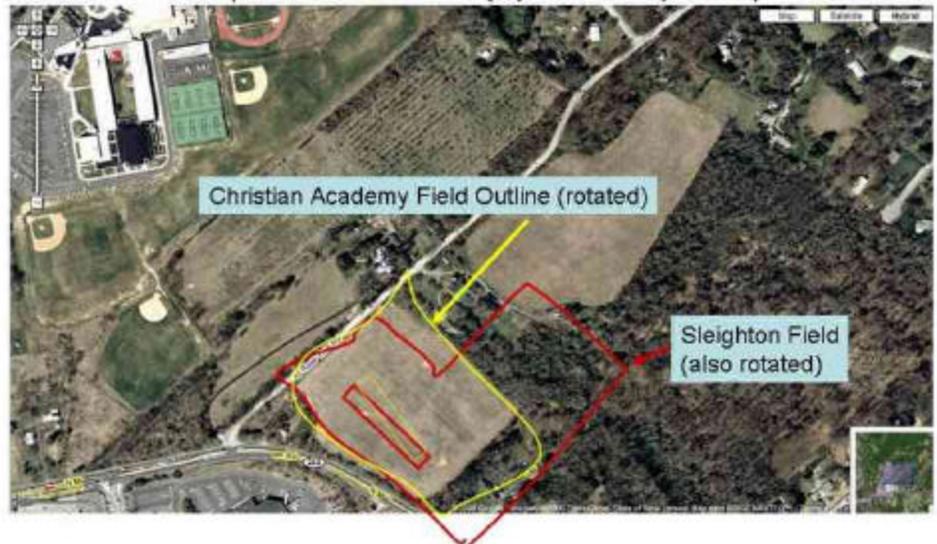
Middletown officials tell me that there are no plans for the development of this property; they are simply protecting open space in the township, so we can probably work on plans for using these fields for a while.

One of the issues we need to face is whether we want to maintain two fields.



Smedley Field Comparisons with Sleighton and Christian Academy

Both comparative fields rotated so runway lays where Smedley would be placed



For the last two years our fields have been made available for no rent, so the costs have been only for mowing. That is fortunate as we have lost about half our membership over the last three years, during the time we have had no, or little capability to accommodate glow powered models. Treasurer Jim Barrows offered a budget that was accepted by the membership, to maintain just one field next year. With a slight further loss of membership we can do this, keeping the dues at the current \$60 level.

Certainly having two fields is confusing to the members as at least half of the fun in a club such as ours is sharing the experiences with your fellow members, and it is hard to do that if you don't know at which field they will fly on a given day. On the other hand, we have been very fortunate to have access to two fields as we know that we can lose them in an instant. What do you think? Let me know so we can continue a membership discussion of these issues.

Dick Seiwell, President

RC Groups Discussion - First experience with A123 batteries is VERY good!

I could not resist. I bought a DeWalt pack. As soon as I got it I tore it open and ripped out the cells. I made a quick 7s pack, without even re-soldering the cells, just stock spot welds. All in all it took about 15 minutes to do. I charged it up as a 6s lipo, since the voltages just happen to be 25.2 charged. I then flew it in my Fliton Extra.

(Note; both LiPoly and A123 cells require charging at a constant voltage with varying current. The current drops to zero when the desired pack voltage is reached. With LiPoly the voltage is 4.2 per cell while the A123 is 3.6. So if we charge a six cell LiPoly pack it will charge at 6 x 4.2 = 25.2 volts. A seven cell A123 pack will charge at 7 x 3.6 = 25.2 volts. Neat eh? You fool your LiPo charger into thinking it is charging a six cell LiPo pack but it is really charging a seven cell A123 pack, and doing it properly, Ed.)

The Fliton uses 52 amps WOT at 20.5 volts; approx. 1000 watts. It flew great. Just like when I had 6s lipo. After a 6 minute flight I landed and decided to test the batteries fast charge capabilities. I charged at 6 amps (would have gone higher but the car batt. would go too low!) 15 minutes later it beeps saying it is done. I put in 1800 mah. I flew again for 8 minutes. That used about 2100 mah. So now I can do 8 minutes high performance flights with less than 75 dollars a pack, and these packs last 2,000 cycles!!! If they last 800 I'll be happy! I am going to try the other 3 cells in my Skeeter 45, but I need to program a different cutoff voltage for the batt as it can go under 9 volts WOT.

(Hmmm... let me see now, my Hanger 9 Cub uses 24 3000 mah Kan NiMh cells at about 50 ounces of battery. I pull about 25 amps max at about 28 volts or so. Now if I used seven A123 cells the battery would weigh about 20 ounces; a saving of 30 ounces or maybe 25% of all up weight. The lighter airplane would fly better, particularly in so far as approach and landing is concerned in our small fields, it would need less power so the lower voltage would not be a problem and I could install a larger prop if I needed to restore the power to the current level. Sounds pretty good to me, now all I need to do is save up for the new pack! Ed.)

As we go to press I note that battery guru and Model Aviation columnist, Red Scholefield, has endorsed these batteries in the latest Model Aviation, as possibly the next big thing in electric flight, at least for big airplanes. He is running an extensive durability test in a Telemaster. Ed.



Propstoppers Win the World Wide Electric Texaco Postal Competition

The results are now in, and it is official, WE WON.

1st				Place
Propstoppers,		Delaware		County
72	degrees,	calm,	partial	cloud
1 Dave Harding	96" Stardust Special	14 x 1500 mAh NiCd	116m	20s
2 Dave Bevan	72" Trenton Terror	7 x 2400 mAh NiCd	38m	5s
3 Dick Bartkowski	72" Record Hound	7 x 1800 mAh NiMH	32m	10s
4 Al Basualdo	40' Trenton Terror	7 x 650 mAh NiMH	26m	44s
5 Mike Harris	Rambler	7 x 1500 mAh NiCd	25m	15s

Team score (top three) = 3hr 6m 35s

2nd				Place
SAM	27,	Northern		California
75	degrees,	cloudless,	wind increased to 15	mph
1 Andrew Tickle	350 sq in EE Wren	2 x 1050 mAh LiPo	69m	56s
2 Dick Irwin	470 sq in Airborn	7 x 1500 mAh NiCd	60m	36s
3 Nick Kelez	470 sq in Airborn	7 x 1000 mAh NiCd	36m	54s
4 Loren Kramer	650 sq in Playboy	7 x 1500 mAh NiCd	32m	33s

Team score (top three) = 2hr 47m 26s

3rd			Place
Illawara,			Australia.
Bad			weather.....

Because of the high wind we (SAM 27) decided to schedule a refly, as allowed by the 2006 rules. The Northern California weather on the refly day was even worse than before. We averaged about 40 minutes each, all landing within minutes of each other. We were joined for the refly by two offsite team members: Gianfranco Lusso (Gianco) in Switzerland, and Mike Kilmer in Northern Louisiana. Gianco flew an Italian KL61, and made 62m 12s while recovering from pneumonia. Mike flew an Airborn for 97m 15s but would not submit the result for the postal contest because

his timer never showed up to make it official. So our original time was unbeaten.

Geof Burling's team (Illawara, Australia) flew in lousy weather. It was so bad that Geof never even sent in the flight times. We urged him to organize a re-fly but it seemed they ran out of time. There was also no entry from SAM 117 this year.

This year SAM 27 decided to practice flying as a team to make thermal hunting more efficient. Thermal flyers typically fly well separated. In ground tests we were unable to find any interference from close proximity transmitters. So we got into a (UK style) huddle to make communication easier while flying.

Congratulations to the Propstoppers and a marathon flight by Dave Harding. They will be organizing the postal event next year.

Andrew Tickle, SAM 27

First Indoor Meet of the Season

It's that time again, the indoor season is upon us and the first one was held on the 3rd of November in the usual Tincum School gym, thanks again to Mike Black.

The marvelous thing about these meets that we have held for the last five years or so is that they are all different. The technology of our hobby is changing so fast that you expect to see radical changes in models from one month to the next. This year it is the widespread availability of the superb Air Hog biplane RTF models.



For \$30 you get a complete setup; just add six AA batteries and you have an excellent RC airplane that people can fly on their first attempt, and perhaps the best thing is these models seem almost indestructible. But they fly very well indoors or out. Control is by the two pusher props, each powered by a separate motor. Climb and descent commands are achieved by varying the power setting to both motors, while turns are accomplished by varying the power between the two; more power to the right hand motor produces a left turn. Amazingly, these models come with a LiPoly battery installed so flights are in the order of ten minutes or more, and the charging duties are accomplished via the transmitter, which charges the flight battery automatically with the built-in electronics and the AA battery pack. A charge takes about fifteen minutes. These little gems come in three different 27 MHz frequencies so you can have three in the air at once. Of course, you need to do the usual frequency control so as to avoid interference between those that are flying and those waiting. Our Ace for these models is Chuck Kime, shown here with his nephew, another Ace.

"Air Hog" Chuck Kime and his nephew Alex



At this, our first meet there were perhaps six or so of these models, with three in the air most of the time. Even my reluctant grandson Michael was tempted to try one after playing with the box and equipment in my shop.

More Air Hog pilots, Michael Everett and Dick Seiwel's grandsons



Michael has been reticent about flying my models but this is a whole new ball game and he flew the first flight with some skill and hasn't put the thing down since. Dick Seiwel's #1 grandson is already an Ace but #2 surprised him with his skills at the first try.

Now I showed you some of the various things people have done with the guts from these models and this gave me an urge to do something too. So, the #2 model was sacrificed on the altar of innovation and I began to write out the criteria. First I looked at the pusher props and thought that I could probably pry one off and turn it round as a tractor, but I was concerned about the possibility of wrecking the only parts I had on hand, so I decided to make it a pusher, and probably a twin-engined jet with the props at the back of each motor. This narrowed the search down some, but I also decided to make the model one that I particularly liked or one associated with some aspect of my life. This narrowed things some more.



Then once I had some candidates I moved on to the next set of criteria, of course, I also had to pick one for which I could find a 3-view drawing.

I thought I might do a Canberra bomber, but that has a really low aspect ratio wing which would be heavy and draggy. This model was to be an indoor flyer in the small Tinicum gym, so the weight and wing loading needed to be low, and the L/D high enough to fly with the Air Hog propulsion. How much is that you say? Well, naturally I did a test by pointing the model down onto my gram scale, zeroing out its weight then powering up. The thrust on a fresh charge is about 15 grams, or half an ounce. These small models fly at really low Reynolds numbers so the lift and drag suffer. I would be lucky to get somewhere in the neighborhood of $L/D=4$ or maybe less, so the weight needed to be not much more than the Air Hog, or about one ounce.

Now the question was one of weight. The Air Hog guts weigh about 11 grams or 1/3 ounce. How much would the airframe weigh? I had a stash of the British wallpaper foam, that stuff that is structurally useless but light, that the Brits have developed for airframes in really light models, so I first "built" a wing. I cut out a tapered medium aspect ration wing surface from this foam then glued a single tapered balsa spar at the 1/3 chord point. Then I glued a second skin to this arranging for the top surface to curve such that a sort of flat bottomed airfoil was formed. This looked promising and weighed only 4.5 grams. So I built another.

Now for the model; I know, how about a Boeing 737? It has a high aspect ratio wing and the early versions had small diameter, low bypass-ratio jets slung close to the wing and the fuselage is largely cylindrical. So I downloaded a 3-view from Eduardo's excellent page;

<http://www.fortunecity.com/marina/manatee/272/>

I copied this into Corel Draw and pulled the scale until I had a wingspan of 20 inches. Now for the trick, you go to "print preview" and then, under printer options, select print tiled pages. This will show your 3-view superimposed on a whole bunch of tiled pages. Now move the 3-view so the part you want neatly straddles a page or two, then right click the mouse and select "print this page". Repeat this for the other pages needed for the object, like the wing, and then you have two or three pages that can be taped together for that part. Repeat this process for the other parts you need and you have a plan with just enough paper to show the details you need with no wasted empty pages.

I made the fuselage by rolling a tube of the wallpaper foam and then slitting the bottom seam so that the back end would taper. I made the nose from a stack of Styrofoam sheets and carved it to shape. The fuselage was reinforced with a couple of circular bulkheads made from foam and reinforced with a couple of balsa sticks. The fin is from the same construction as the wing while the horizontal tails are from Depron. I glued the two wing halves together and assembled the Air Hog parts to them. Then I made another fuselage frame and attached it to the wing. Within the fuselage I attached another frame at the same location and put a miniature magnet on one and a piece of steel shim on the other, this together with another magnet at the TE held the wing in place yet allowed access to the guts. The assembly weighs about one ounce, so far so good. But will it fly and where will I balance it? There are abundant leaves on my back yard right now so I decided on a test glide, which turned out quite well. A little nose heavy and a little shy in the L/D department but pleasantly slow flying. Ready for the meet after hollowing out the nose some more to achieve a close balance.

At Tinicum I thought I had better contract with a pilot skilled in Air Hogs, so I asked Chuck, good hands (hog hands?) Kime, to do the honors. The first couple of attempts resulted in some stalling and a turn to the left into a bit of a spiral dive so some clay was added to the nose and a trim tab added to the fin. Still it turned left but was in pitch trim so we examined the wing and found some unwanted twist that I removed by opening up the TE seam and re gluing it.



Flight was a little better and we achieved one good one with a whole turn before descending to the floor. This one has promise but is not quite there yet, so wait till the next meet and come out to see.



Meanwhile we had the usual collection of helicopters, aerobats and small freeflights. And the usual induction of new potential modelers flying Delta Darts. Here Bill Tomasco's grandson makes a magnificent launch.



One amusing event was when Chuck Kime flew his ARF miniature rubber freeflight Butterfly to the ceiling and had it stuck on the rafter.



John Tripier with his Butterfly ARF at show and tell

The model was hanging with the prop atop the beam and the rest of the model hanging below it, vertically. Chuck looked at it a while and realized that the only chance of retrieval was if someone flew another model to dislodge it. A couple of passes from the Air Hog Aces made him realize that it wasn't going to happen with one of those so he asked Joe Mesko if he could try with his coaxial helicopter. Joe had been complaining about the difficulty of getting the helicopter into trim but he seemed to be getting it close and agreed to try the maneuver, risky though it was for both. The result was a perfect strike by Joe and a shower of confetti for Chuck;



Al Basualdo's big 3D biplane looked like a handful in the small Tincicum gym.



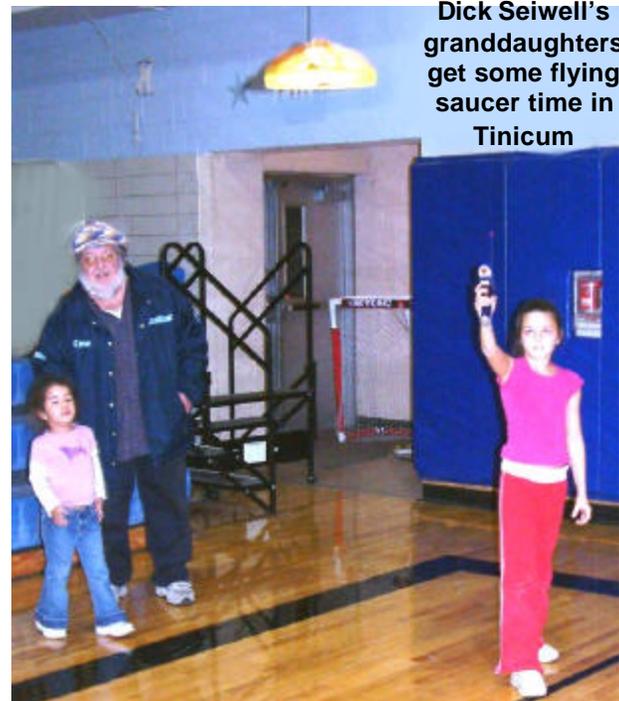
This one fit much better



Deadeye Joe Mesko, attack helicopter pilot extraordinaire with his "target remains" doing BDA.

Then of course there was the usual collection of children and grandchildren to brighten our evening and give some hope for the future. All in all, it was another excellent evening for the Propstoppers. Don't miss the next one on Friday December 1st. It will be about two weeks after the next club meeting, so make a note and plan to come.

Dave Harding



Dick Seiwel's granddaughters get some flying saucer time in Tincicum

Dave Harding – Editor
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Propstoppers R.C. M.A.C

This 1936 magazine picture shows Canadian Vernon Boehle with his freeflight Giant. Boehle took advantage of a rule loophole as his guide in building this model. Check the AMA website and read his biography.

Then read Editor Dave Harding's blog on the build of a copy of this model for SAM Texaco competition. www.dhaerotech.com/giantblog.htm



Membership Renewal For 2007

Membership renewal for 2007 is now available. You can renew by mail or at the club meetings in November and December

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