



The Flightline



Volume 37, Issue 10

Newsletter of the Propstoppers RC Club

AMA 1042

October 2007

The President's Message

Well here we are in the middle of the month already. It seems there is a lot of flying going on which is great
 The Sleighton Field runway has been torn up by some ATV louts, but is on its way back to recovery.
 Don't forget this month's meeting is at the Middletown library 7-30 till 8-50, although it opens at 7 so come early for some conversation. This meeting would be a good time to show off the old timers some of the members were building over the summer. Thanks go out to Mick Harris and Dave Harding and Dick Bartkowski for getting this project going. It seem like everyone has all lot of fun just watching them fly. We may have a small club but we have a lot of great flyers that are international flyers, with

many podium wins. By the way Dick and Dave are off again lets all, wish them well and hope they come back with some gold.

I just received the official approval from Mike Black for our Indoor fun fly dates in the Tinicum School gym.

- November 2, 2007
- December 7, 2007
- January 4, 2008
- February 1, 2008
- March 7, 2008

We all owe Mike a great big thank you for his continued efforts with the Interboro School District in getting the use of this fine facility. It is time to start thinking about your indoor projects guys. There are loads of great RTF models, both fixed wing and helicopters, but how about some home made ones or at least some kit bashed versions.

Dick Seiwel, President

*Agenda for October 9th Meeting
 At The Middletown Library;
 Doors open 7pm, Meeting 7:30pm.*

1. Approval of September Meeting Minutes
2. Membership Report
3. Finance Report
4. Budget for 2008
5. Nomination of Officers
6. Show and Tell

Minutes of the 11th September Monthly Club Meeting

The meeting was held at Dave Harding's House because of rainy weather. (Note for those who were unable to attend, this was a last minute decision to hold the meeting there. Sorry to all those who did not get contacted.)

Roll-call by membership chair Ray Wopatek showed 16 members present.
 Treasurer's report by Phil Oetinger was presented and accepted. .
 Minutes as printed in the newsletter were approved by the membership.

Old Business:

President Seiwel discussed the status of both fields i.e. Christian Academy and Sleighton. He noted that there are always problems with their continued availability. So far, however, there is nothing definite either way. He noted that we should keep looking for a more permanent site.

He noted that the club had a good turnout for Thursday evening flying and the Saturday Walt Bryan fun fly. The club made their first official flights for the International Old Timer Texaco postal contest with 4 flyers posting times.

New Business:

There was no new business.

Adjournment took place at 8:08 p.m.

The members enjoyed a lively discussion of electric topics such as batteries, connectors, motors, flying and new products.

Dick Bartkowski, Secretary

SAM 76 at the 2007 Champs

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Calendar of Events

Club Meetings

Regular Meeting at Middletown Library
Tuesday 9th October 2007
Doors open at 7:00 pm Meeting at 7:30

Next Monthly Meeting Tuesday 13th
November 2007 at the Middletown Library.

Tuesday Breakfast Meeting
The Country Deli, Rt. 352 Glenn Mills
9 till 10 am. Just show up.

Indoor Flying

At the Tinicum School Gym 7 till 9 pm
Friday November 2, 2007
Friday December 7, 2007
Friday January 4, 2008
Friday February 1, 2008
Friday March 7, 2008

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 10 am Sleighton Field
Thursday evenings 5pm on CA Field

Club Activities

Most Saturday mornings have found Mike Black flying his 3D glow plane and then on the buddy box training Jim Barrows flying one or other of his larger electric "trainers". This one is a very old twice-size Jabberwocky rubber old timer built originally by Al Tamburro, who has also turned out a few times this summer.



Al Tamburro, Mike Black and Jim Barrows with the 2 x Jabberwocky at Sleighton

One pleasant surprise one recent Saturday was a visit by long time Propstopper Marty Bakalorz. Marty showed he has not lost the feel in his good hands by flying Dave Harding's Cox Spitfire to the limits of its envelope. Come on back Marty, we miss you.

Propstoppers RC Club of Delaware County, Pennsylvania.

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Good Hands Marty Bakalorz back on the sticks during a visit to Sleighton

What with all the traveling for this summer I am way behind in preparation for the annual SAM Champs. This year Dick Bartkowski and I will be traveling again to the El Dorado Dry Lake in just south of Henderson Nevada and a little further south from Las Vegas. The lake bed is about four miles long and a mile wide. It floods in the winter months but is usually dry by late summer. The surface first dries to a hard pack then continues to dry forming the classic random cracking "tiles". Since it is bone dry it when it is disturbed it degenerates to a fine dust and when you drive on it, or when the wind blows you get dust plumes that get into everything. Once on an early visit to the high desert (Willow Springs Raceway actually) I made the mistake of deliberately leaving my car windows down so as to reduce the heat build-up. Wrong decision! I am glad it was a rental.

The dry lakes of the American west are magic to me as they are so completely different to the green rolling hills of England and Pennsylvania. They are as close to model airplane Nirvana as you can find, although the desert weather can be tough at times. Two years ago at the Champs we had one day where the wind was too high for us to fly but the other four days were excellent and the Contest Directors were easily able to squeeze the many events into the four remaining days.

The big Champs problem that we solved then was the transportation of our models. I made a big plywood box sized to handle Dick's Pacer C with one-piece wing and fixed stab, and we shipped it via Greyhound Bus to Los Angeles, where I picked it up and drove it to the meet. We had eight models stashed in there as I remember.

We have already packed and shipped this box to LA for this year's meet and it has arrived with models in good condition. We found Greyhound to be the most economical way to ship a large but fairly light box. The downside elements of shipping with Greyhound are there is no tracking and nobody answers the phones at the depot. Nevertheless it worked again. This year I packed two of my models, the big Stardust Special and the smaller speed 400 version; in the golf bag I have been using to air-ship my models as luggage. We bolted this inside the big box so it will not come loose and crush the other models. I also packed two other models into one of my carry-on cardboard boxes, so Dick ended up with his models and my Trenton Terror as loose items to be packed, attached and protected. Dick has taken his Record Hound and small Trenton Terror for speed 400 together with two of Mick's British Skyrockets for Wakefield and Spirit of SAM; More on all of these later.



Models in SoCal ready for the SAM Champs

We stay at the Railroad Pass Casino which holds the oldest gaming license in Nevada, dating back to the early '30's. This must have been the nearest casino to Boulder City, the town made for the workers engaged in building the Boulder Dam just a few miles away. This casino reminds me of old Las Vegas in the sense that they have to try real hard to entice the customers to spend their money here. Cheap meals and drinks are our fare!

There are five events that count towards the Electric Championship and this year there are two other electric events in addition although they don't count towards the Championship.

The first event is the Limited Motor Run where we are allowed a NiCad battery of not more than 25% of the model weight. We power climb for 90 seconds following which you glide and seek thermals. You get three flights, two of which count. The maximum time is ten minutes including the climb. If more than one competitor achieves two maxes there is an unlimited flyoff.

I engineered the big Stardust Special for this event. It is powered either with an old Aveox 1412/2Y brushless motor with a 3.7:1 planetary gearbox and fourteen CP1300 mah cells, or a Neu 1506/1.5Y with a 6.7:1 planetary gearbox on seven CP2400 cells. This year I have decided to use the Neu motor pulling twice the current on half the voltage for about the same power, although this setup is about seven ounces lighter. The model has still air performance of over ten minutes.

For many years Dick flew his Sal Taibi designed Pacer C in this event but when we started traveling to Europe he built a Record Hound and designed it to pack in one of our golf cases. This model also has excellent performance; Dick uses AXI outrunner motors without gearboxes.



El Dorado Dry Lake is approximately four miles long and a mile wide. Surrounded by mountains it is a wonderful flying site.

We have been practicing and sorting out our models for weeks but it is risky practice close to leaving for Las Vegas and sure enough, Dick put his 'Hound in the top of the tallest Sleighton Farms tree. Luckily it was a soft arrival and could be easily seen from the ground. With a small ransom paid Dick had the model back in hand, and in generally good condition with time to fix and pack it for shipping.

We both use the same models for the next event; Electric Texaco. In this event we are allowed the same sized NiCad battery but we are allowed to run the motor at any time including stopping and starting until the battery is exhausted. There is no maximum duration for these flights and the winner is the flyer with the highest single time in two attempts. These flights can last over an hour.

Since the power requirements emphasize efficiency rather than pure power we fly them with different motors/gearboxes/propellers and batteries. We have learned that low power cruising to altitude is more efficient than a rapid high power climb consequently we fly at very low currents. This allows us to use high capacity batteries that are maybe 30% lighter than the high current items we use in LMR.

My initial propulsion system for Texaco in the big Stardust Special was a motor and gearbox I had on hand; a Mega 16/15/3 with a Model Motors 6:1 planetary gearbox turning a 17 x 11 Aeronaut prop on fourteen 1500 AUL cells arranged into two packs of seven cells in parallel. My best still air times were in the fifty minute range but my buddy Jack Hiner has a model that consistently does over an hour. So this year I engineered a propulsion system specifically for this model and event. I bought another Neu motor because they are so well engineered and they are efficient. I bought it with an integral 4.4:1 Maxton planetary gearbox and then added another 2.33:1 spur gear box to the front for a combined ratio of 10.5:1. This now turns a 24 x 23 prop at very low speed but in several test flights at CA and Sleighton it is performing very well.

Dave's big Stardust Special Electric Texaco propulsion system; a Neu motor with Maxton planetary gearbox mated to a 2.33:1 spur gear reduction (wrapped in tape to keep out the desert dust)



We use the very efficient folding props from Aeronaut or Graupner although we clamp them so they don't fold in flight. We must stop them folding by SAM rules but these props are also more economical as you don't break them very often. Another advantage is you can buy different hub parts with different diameters and twists. This allows you to fine tune the prop diameter and pitch by changing just this one part. In my quest for the ideal prop I was unable to find exactly what I needed but I was able to make a new hub part with the attributes I needed. It was surprisingly easy; I used just a drill press and belt sander.

So far it has flown for almost forty minutes on the 2008 rules battery, a two cell 1800 mah LiPo. I expect it to fly for well over an hour in LV, but we will see.

One problem with the most efficient propulsion system is you have so little margin for takeoff performance. Also, with such models you become acutely aware of the extra performance required to climb above the turbulent ground layer. We are lucky to fly just at El Dorado and Muncie as both have smooth hard surfaces for takeoff. This year I have added some insurance with a special set of home made low-drag wheels.

Dick uses a geared speed 400 propulsion system on his Record Hound and he has been flying the setup with the 2008 battery specification in our ETexaco Postal Team trials with some effect. We should be ready for this one.

The next event we fly is Sprit of SAM, another Texaco type event but for Old Timer Rubber powered models, which we now power electrically. The rules here are simple; you are allowed a NiCad battery that can weigh no more than 45 grams. A four cell AAA 350 mah pack seems to be the best.

At the last Las Vegas Champs Dick won this event flying one of Mick Harris's British Skyrocket models and I placed second with my 87% sized 1939 Jack North British Wakefield.

Dave Harding and Dick Bartkowski with their Spirit of SAM models at the 2005 SAM Champs at the El Dorado Dry Lake. Dick won and Dave placed second



Then it was my turn to do some unfortunate testing. While we have had good success using the GWS IPS lightweight brushed motor systems in these models we were both intrigued with the availability of very small brushless motors that fit these gearboxes and some small outrunners too. I acquired both and have been testing early in the morning from our local school parking lot. All the testing proved promising with the inrunner Gunther motor and GWS gearbox proving to be somewhat better. All I had to do was make a final prop selection although if you are in the ball park there are small differences with changes in diameter or pitch. None the less I took the model for one last test at CA on the Thursday evening before leaving. The weather was excellent but we had other things to fly and I thought I might not bother, but as the evening drew in Bill Tomasco's grandson Alex asked if he could launch one of my airplanes. I had let him launch my 3D foamy the week before. Alex has good form as you can see here.

He made a good launch and the model climbed perfectly to some altitude holding a steady heading into the modest wind. Now the problem here is this model has twenty five minute duration and it was beginning to get dark. No problem with looking at the silhouetted planform against the clear sky, but people were leaving and I really wasn't learning anything so I began to let down.

Bill Tomasco's grandson Alex shows his good form in launching during last year's indoor at Timicum



Power-off the model drifted downwind somewhat and descended in the general direction of the CA school. Oh oh, I can see it but I can't see which way it is pointed, and the low sky is now quite dark. Visibility from the front and rear is much more difficult than in planform!

Well, I lost it and let it drift power-off downwind. I had a good bearing on the direction and could still see it on occasion so this small model could not have been very far away, maybe near the school. It was too dark to search that evening but the next day first me then Dave Bevan and after him Chuck Kime searched along the flight path. If you follow directly from the pits towards the left hand side of the school you will find a deep forest of the tallest trees in the Moore – CA woods. There was no way we were going to find this model in the tall canopy; it's a goner! Now what will I do for SoS in LV? Well Dick gave me one of Mick's old models, a Kiel Kraft Ajax so I sorted out a set of components and shipped the model and parts for a SoCal assembly process.

Well, wouldn't you know, after I left for SoCal Jean got a call from "Al" a person who once flew RC and found this model in his back yard. He lives in High Meadow so the model made it across Rt. 352 in its decent! Now if I can only figure how to get it to SoCal and put together in time.....

The next events we fly are electric Wakefield Old Time Rubber and Unlimited Rubber. These are limited motor run events that use the inexpensive Speed 300 and Speed 400 motors and seven cell NiCad batteries of any capacity. You are allowed a sixty second motor run. Wakefield has a five minute max while Unlimited has seven minutes.

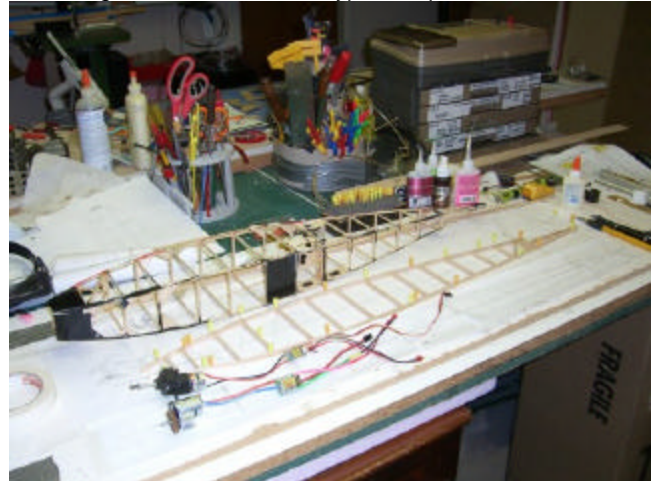
Dick has been flying a variety of Mick's models in both classes. "Event" #3 occurred at CA one Thursday evening a few weeks ago when Dick had a loss of control at low altitude, loosing the model in the direction of the Moore farm. We eventually found it quite high up in a tree along the edge of old Moore Field. It took a while with Dave Bevan's wonderful catapult model retrieval system to bring it down somewhat but a ladder and pole tree pruner to bring it down all the way. But the retrieval process also sacrificed most of the fuselage structure giving Dick a greater build process that he expected prior to the Champs.



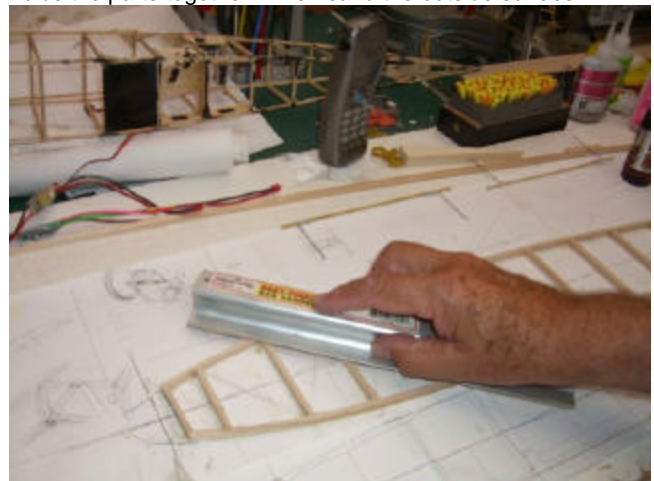
I had been having great success with my 1939 Jack North Wakefield in both these two events and with the smaller version in SoS. I have won both Wakefield and Unlimited events on several occasions, but also folding wings and busting fuselages on several others. The wing and empennage was still good but I needed a new fuselage and I thought that a higher gear ratio and larger prop would also give me more performance, so I built both.

I used a high quality Hyperion gearbox from Nippon Dave and fitted it with several new home made blades of various sizes attached to my original "the night before the event" folding prop assembly.

I like to build directly over the plans, which are usually a print out from a scaled-scanned image so I don't mind the sacrifice. I build both sides on top of each other and use either white glue or CA as the mood takes me. This picture shows the original fuselage as well as the original powerplant with its 5:1 inrunner gearbox and the new Hyperion spur reduction of 6.8:1



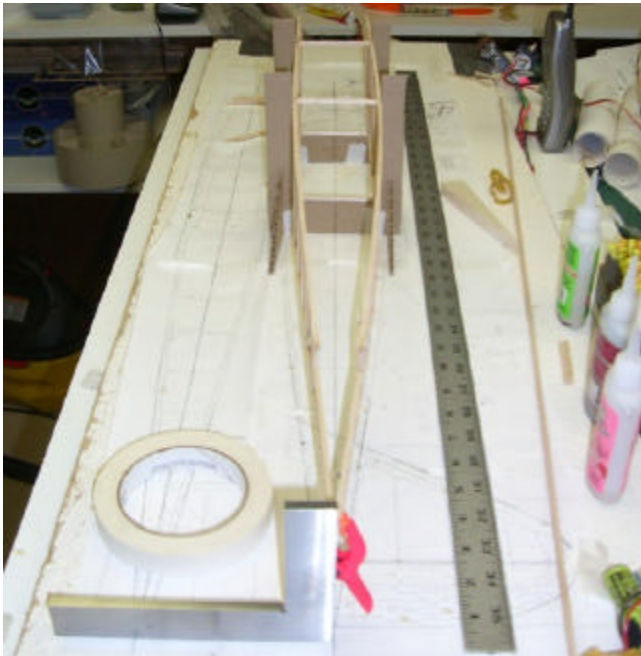
Now the result of this process is the structure stuck to the plan and both sides are stuck together. But this is a good thing as it holds the parts together while I sand the outside surface.



I separate the structure from the plan with a long thin blade then sand the bottom surface. The same blade allows the two sides to be separated and then the inner surfaces sanded too. You have to be very careful at this stage because it is easy for the whole structure to collapse from the sanding loads.

The next step is to jig the two sides parallel and located true over the top view plan. I make the jigs from corrugated

cardboard and pin them to the plan. The first crosswise sticks to be glued are those at the jig locations. Then the tail join is carefully located vertical and aligned with the center line. Following this step a similar approach is used at the nose, where it may be necessary to block each side with a heavy weight so as to hold it in position. I purchased a set of steel machinist's squares that are ideal for this kind of application. Sometimes I also run a centerline thread between nose and tail to give a true and straight datum. This is necessary because each stick you cut and fit connecting the two sides has a tendency to pull the structure out of alignment, so constant adjustments are necessary as each pair of crosswise sticks are added. We don't want to build "bananas"!



This build was quite successful so I made a test flight after breakfast one Tuesday morning. Oops, I out smarted myself with a "clever" new battery mount. The battery came loose and the model went out of control and crashed vertically into Sleighton's soft turf. Back to the building board and another test flight; this one successful! Put it in the box.

Wow, a couple of days left, what else can I fly? At each Champs there is a featured model and this year it is the Trenton Terror, the plane our members have been building. Unfortunately, although my TT has been a stalwart performer for years I got low and slow in the CA cross wind on landing. The resulting cartwheel broke the fuselage in three major and many minor pieces. I was so sick I just dumped it on a shelf and forgot it. So it was in this mode of build and pack that I thought I would look at the TT. Well you know how it goes, hey, these two sticks, still loosely attached to the covering, look like they

should be joined. A dab of thin CA; there, like new. Wow, there is another; CA done! It was beginning to look like an easy fix and so it was. In a couple of hours I had it put back together and recovered. This is a model I covered with Doculam then sprayed it with cheap lacquer. I had some of the paint left over so the next day I finished it up and packed it ready to ship. For a moment, but no more, I thought about throwing in an ignition Ohlsson 60 and flying several other classes but then I came to my senses. Here is a picture of the Trenton Terror when it was first built at the 2004 Muncie Champs. It has been fixed but doesn't look as good as this any more! Contest models wear I have found.



What else do I have? Our US Euro Champs leader, Ed Hamler, has been pushing a "new" "beginner's" class based on the Euro 1/2 A Electric Texaco direct drive speed 400 model. Ed uses the Euro rules with the exception that he eliminates the wing loading requirement.

I had built a competitive model for Europe this year (and last year too, but that is another story) but crashed it in an attempt to fly 1/2 A Texaco with a Cox 049. Another bundle of sticks re-build but like the TT this one also went fairly easily but needs work for motor installation and finishing in SoCal.



So there you have it. A full complement of models and a full schedule for the Champs; but wait, I "found" that I had stashed a Speed 400 model on the West Coast during a prior visit and that model is almost identical to this one. Dick has brought his venerable small Trenton Terror for this class so we have a spare. Maybe I will offer it to Aussie Allan Laycock.

So all that remains are a bunch of cleanup chores and battery conditioning. Then rent the van and drive to Lost Wages and give it our best. Complete report next month.

Dave Harding



The Electric Texaco Postal Challenge

Last year we won this event so we have to run it this year. But we can also compete and over the last few weeks we have been test flying our models and we have made two attempts at team flying.

Rick Grothman made a Playboy especially for this competition and he has been sorting it out so as to get the best performance (what else!) These models have marginal climb performance when fitted with the most efficient cruise power systems and Rick has been trying various propellers. He has succeeded in finding a setup that gets him out of the ground layer and has put in several flights approaching twenty minutes.

Chuck Kime has been flying Mick Harris's Miss America to good effect but he too fell to the great God "Hung", the model airplane grabber. Chuck had a loss of control fly away at Sleighton and again retrieved it with the help of Dave Bevan and his magic model catcher.

Dave is shown here trying to re-create his last year's ETex successes, this time flying one of Dick Bartkowski's models. It was a handful in the gathering gloom at CA Field.

We will continue to make these attempts through November.



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Propstoppers R.C. M.A.C



Dave Harding and Dick Bartkowski fly Dave's Trenton Terror on the El Dorado Dry Lake during the 2005 SAM Champs. This model lives to fly another day from this great site in 2007

Eighth Annual All-Helicopter Airshow Rotorfest. October 13- 14th

On both Saturday and Sunday three exciting air shows will be held featuring both civilian and military helicopters. Also, the "**Black Daggers**" a parachute demonstration team will dazzle the audience with their free fall acrobatics. **Helidel Helicopters, Inc.** will also be offering short helicopter rides. Bring the family or just come yourself and confirm what an amazing industry this is. For more information on this event visit their web site at www.helicoptermuseum.org

Flying Event Calendar

Indoor Flying

Tinicum School Gymnasium
 7 till 9 pm

Friday November 2, 2007

Friday December 7, 2007

Friday January 4, 2008

Friday February 1, 2008

Friday March 7, 2008

**AMA membership required to fly.
 Guest flyers and spectators welcome.**