



# The Flightline



Volume 36, Issue 6

Newsletter of the Propstoppers RC Club

AMA 1042

June 2006



The Propstopper volunteers display the Middletown Township Community Pride Day raffle prizes so generously donated by Hobby Town of Springfield and Propstoppers; Dick Bartkowski and John Tripier

## Agenda for June 13<sup>th</sup> Meeting At Sleighton Field

Flying from 5 pm, meeting at 7 pm

1. Approval of May meeting minutes
2. Membership Report
3. Finance Report
4. Flying Field Status
5. Plan for Club Picnic
6. Show and Tell
7. Continued Flying

## President's Message

The Propstopper's turn out for the Middletown Township Community Pride Day was outstanding. There was a variety of Planes, Helicopters, scratch-built models and engines. Everyone who attended enjoyed it whether they were displaying, flying or just plain supporting the club's efforts. The raffle went well with one of the Williamson School students winning a RTF RC airplane; what could be better.

The township has another event they want us to support. When I get more details I will pass them on.

Saturday June 17th is the club picnic. We need some one to help organize it. This is so we can bring shared food, like potato salad, slaw, hot dogs, hamburgers and buns, chips, ice and sodas. And maybe we could organize a couple of events; have you all built your Cox Warbirds yet? If you don't want to volunteer (but you should) just tell us what food or drink you will bring.

All meeting nights have been changed From now on we will meet on the **Second Tuesday** of the month with the June, July, Aug and Sept. at Sleighton field. Fuel models may be flown on meeting nights

See you at the meeting and bring planes to fly

**Dick Seiwel, President**

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## Calendar of Events

### Club Meetings

Regular Meeting at Sleighton Field  
Flying from 5 pm meeting at 7 pm  
Tuesday 13<sup>th</sup> June, 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

### Special Club Flying

#### Club Picnic Saturday 17<sup>th</sup> June, Sleighton Field

Walt Bryan Electric Fun Fly, Saturday  
12<sup>th</sup> August, Christian Academy Field.

Saturday mornings 10 am Sleighton Field  
Tuesday mornings 11 am Sleighton Field  
Thursday evenings 4:30 p.m., 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 April 5<sup>th</sup> at the Middletown Library

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

A roll-call by membership chairman Ray Wopatek showed 13  
members and 1 guest present

The April minutes as published in the newsletter were approved  
without objection

The treasurer's report by Jim Barrow was presented and approved

### Old Business:

Middletown township pride day celebration will be held  
from 11 A.M. to 4:00 p.m. on Saturday May 13<sup>th</sup>. The club would  
like all Members to participate. We will have flying demonstrations  
for the public as well as gifts and prizes to be distributed. A long  
planning discussion followed.

### New Business:

The summer outdoor meetings for June, July and August  
will be at the Sleighton Farm field beginning at 7:00 p.m... After a  
survey of the members, it was decided to hold the meetings on the  
second Tuesday of those months. This way the fall meetings at the  
Middletown library will continue on the same schedule. All models  
including fuel may be flown at the meeting between 4:00 p.m. and  
dusk.

Several members noted that they will gather on Thursday  
evenings at Christian Academy for informal flying.

### Show and Tell:

Phil Oettinger showed an electric trainer Superstar AP that  
came as an ARF built by John Drake. He said he has flown it  
successfully several times.

*Phil Oettinger with his latest  
mode; an electric trainer  
Superstar AP.*

*Do you really need a trainer  
Phil?  
Seems like you are already  
an accomplished pilot!*



Mick Harris showed a 48 in. Trenton Terror he built from  
scratch as an electric for competition.  
Mick also showed a small electric aileron trainer built from plans  
that he modified to also include flaps. He is anxious to see how it  
flies.

## Propstoppers RC Club of Delaware County, Pennsylvania.

### Club Officers

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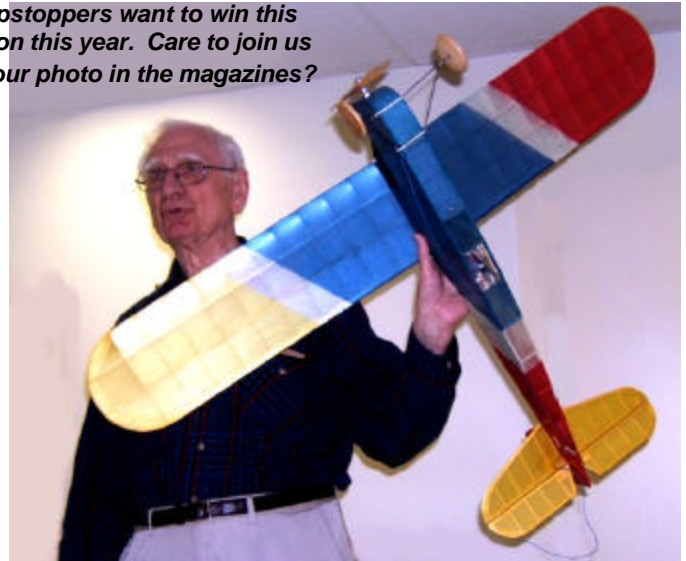
Propstoppers Web Site; [www.propstoppers.org](http://www.propstoppers.org)

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*Mick Harris with his Trenton Terror electric Texaco contest model. An ideal construction project for the Postal competition.*

*The Propstoppers want to win this competition this year. Care to join us and get your photo in the magazines?*

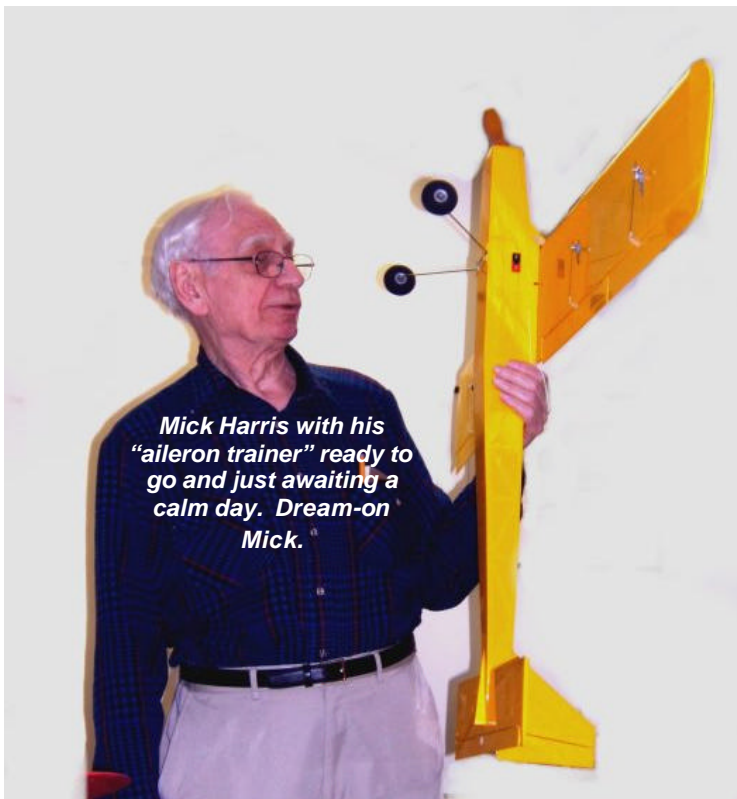



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**Widener University at The SAE Aero Design Competition**



*Mick Harris with his "aileron trainer" ready to go and just awaiting a calm day. Dream-on Mick.*

John Trepier showed his box of 120 small gliders that the club will give away at the Middletown Pride Day celebrations.

Adjournment took place at 8:45 p.m.

*Secretary Richard Bartkowski*

The SAE Aero Design competition is intended to provide undergraduate and graduate engineering students with a real-life engineering exercise. The competition has been designed to provide exposure to the kinds of situations that engineers face in the real work environment.

Propstopper's Vice President, Dave Bevan, has been assisting teams from Widener University compete in this event for over ten years. Each year a new team of Mechanical Engineering students elect to make this challenge as part of their final year studies. There is a new team every year so although there is a residue of materials little actual experience is transferred from year to year. So Dave and the students start pretty much from scratch.

Also, the rules are changed somewhat from year to year so as to prevent the designs becoming standardized and stale. Here is the SAE's description of the event.

First and foremost a design competition, students will find themselves performing trade studies and making compromises to arrive at a design solution that will optimally meet the mission requirements while still conforming to the configuration limitations.

The importance of interpersonal communication skills is often overlooked by engineers, yet both written and oral communication skills are vital in the engineering workplace. To help teams develop these skills, a high percentage of a team's score is devoted to the Design Report and the oral presentation required in the competition.

Aero Design features three classes of competition—Regular, Open, and Micro. Regular Class is intended to be simpler than Open Class, and therefore more accessible to the fledgling team. Open Class is intended to be less restrictive than Regular Class, thereby opening a larger potential solution set. Its lack of restriction allows teams to pursue more complex vehicle configurations, thereby encouraging greater creativity in satisfying the mission requirements. Micro Class teams are required to make trades between two potentially conflicting requirements, carrying the highest payload fraction possible, while simultaneously pursuing the lowest empty weight possible.

The objective of Regular Class is to design an aircraft that can lift as much weight as possible given the dual design constraints of power available and wing span limit. Accurately predicting the lifting capacity of the aircraft is an important part of the exercise, as prediction bonus points often determine the difference in placement between competing teams.

The regular class competition comprises of aircraft built utilizing an OS .61 FX internal combustion engine only. There is a wingspan limit and the aircraft must be able to takeoff within a 200' stretch of runway and must land within a 400' stretch of runway. Points are awarded on payload carrying capability.

The Widener effort began last September with Dave coming on board even before a lead Professor was assigned. Of course this resulted in a series of seminars where the whole question of design, aerodynamics, propulsion stability and control and structures were discussed. Note that these students have completed three or four years of engineering school, so they know the fundamentals, but not the aero engineering disciplines.

Once the professor came on board there was a second period of learning, mostly for the professor!

Nowadays, when you ask an engineering student to design and build something you will observe a long period of time where it appears they are playing computer games. This is because most design is done on the "tube" including drawing, aerodynamics and structures analysis, and frequently the disks that drive a numerically controlled machine tool that makes parts. Here is the winning Brazilian design as depicted in their computer simulation.

The Widener team was no exception and Dave worried for a while as there was a lot of computer time but no parts. Nevertheless, the team did indeed produce a sound, easy to build design. This was fortuitous as these machines are not easy to fly, firstly because they are all-new designs with absolutely no development and secondly, because the pilots are usually an inexperienced student who has been assigned the role.

Consequently it is advisable to allow for a few crashes or other incidents in the development of the design and a simple structure is obviously easier to repair or rebuild. The Widener



**The winning Brazilian design in 3D on the "tube". Looks real doesn't it, and all the parts fit too! One of the many benefits of CAD**

team was to confront this challenge twice during the course of their developments.



**A relatively simple structure and construction is the key to the Widener design**

You may remember that Dick Bartkowski and Mick Harris helped in this regard by providing the team with an Old Timer complete and ready to fly as a trainer. This may have resulted in the opposite of the intended as the student, after a successful flight became awed by the difficulty in piloting.

But soon the plane was finished and ready for a test flight. It is necessary to make these flights from a hard runway of some length as eventually they are flown at high weights and need the low drag while accelerating for takeoff.

Flight testing took place from the runway of the old Bridgeport airport over the Commodore Barry Bridge. Although people fly from this site regularly there have always been some questions about the legality and desirability of this. Dave and the students encountered a security official who initially tried to chase them of but became interested in what they were trying to do, so let them continue.

With a payload lifting airplane and few opportunities to make development flights it was decided to make the initial flights with an eight pound payload; the machine was designed to lift 15

pounds. Initial takeoff was good but these machines don't have much reserve of power and a few pulls on the elevator both pulls the nose up and induces great gobs of drag, pulling you back below level flight speed.



*What a beauty; ready to go for its maiden flight*



*Get it lined up and go for it.*



*The after-flight results of the first Bridgeport test flight. The second flight produced similar results but the flying was encouraging*

This test was repeated after the necessary repairs and 12 pounds of ballast was added.



*Magnificent takeoff and climb out; but watch those aggressive pitch maneuvers with highly loaded airplanes!*

Unfortunately the result was the same, or worse, but the team went back to work and by the time to depart for the Florida competition they were ready again.

Fortunately, when the team arrived they were assigned a skilled model pilot who was also an airline captain, so skilled at the soft hands required to coax a heavy machine into the air. He handled the Widener machine perfectly and made two contest flights with 14 pounds of ballast, commenting that this was one good flying airplane. But flying and winning contests are two different things and it pays to assess the situation at each step of the way. So, following the first two successful flights they found themselves in fourth place so they mulled their strategy for the third and final flight.

The first three competitors were way ahead with payload in the range of 24 pounds so there was nothing the Widener team could do to move up on those teams, so they decided to rest on their laurels and take what might come from the final flights. In the event, they were overcome by Ohio State and University of Akron for a final position of 6<sup>th</sup> place out of 25 competitors in the Regular Class; an outstanding achievement.

First Place in the Regular Class competition went to The Universidade Federal DeMina #023 Team Uai-so-fly from Brazil. Look at that wing planform; lower induced drag with the better lift distribution than a rectangular one!

Second Place in the Regular Class competition went to The Federal University of Uiberland, #032 Team Tucano. A biplane yet, and high aspect ratio one too. But it does not look like they took advantage of wing to wing bracing for a lighter structure.

Third Place in the Regular Class competition went to The University of Cincinnati, #006 Team AeroCats.

But lest we make this sound like a walk in the park, you should know that there was a huge amount of effort to make these accomplishments. Dave Bevan alone put in over seventy hours of coaching in thirty visits. And of course the students had to turn this good advice into the successful endeavor it turned out to be "Well done team", and Dave, another winner; congratulations to all.

Ready for next year Dave?

Anyone want to volunteer to help too?

**Dave Bevan with Dave Harding**

Place	School	Team Name	Score		
			Flight	Design	Overall Score
1	Universidade Federal De Mina	Uai-so-Fly	130.5	94.7	225.2
2	Federal University of Ulberland	TUCANO	130.1	90.5	220.5
3	University of Cincinnati	AeroCats	107.3	87.5	194.8
4	University of Akron	Fear the Roo One	100.5	86.6	187.1
5	Ohio State University	Feathered Anchors	95.0	89.7	184.6
6	Widener University	The Primes	86.4	80.4	166.8
7	Kansas State University	The Bib Kahuna	69.9	87.8	157.7
8	Lafayette College	Acopian Air	60.2	90.6	150.7
9	University of Dayton	The Flying SPUD	59.2	86.1	145.3
10	Wright State University	Team Raider	60.6	84.7	145.2
11	University of Wisconsin	PlattevPhlying Pioneers	68.4	73.7	142.1
12	Warsaw University of Technology	Phoenix	53.4	88.2	141.6
13	University of Puerto Rico	Amancer R	45.4	84.7	130.1
14	Ryerson University	Eh! 380	35.6	91.1	126.7
15	Ecole De Technologie	Superie ACE	53.8	72.5	126.3
16	Rochester Institute of Technology	RIT Aero	0.0	88.3	88.3
17	University of Massachusetts	The Great Bustard	0.0	85.9	85.9
18	Warsaw University of Technology	32 FLY	0.0	85.8	85.8
19	Lawrence Tech University	Blue Devil Flying Aces	0.0	85.6	85.6
20	Rutgers University	The Wingman	0.0	84.1	84.1



*The Brazilians dedicated their efforts to the Brazilian aviation pioneer, Santos Dumont; 2006 being the Centennial of his early successes*



*Second Place model from Brazil; an interesting biplane*



*Third Place conventional model from University of Cincinnati*

# Middletown Township Community Pride Day



*The Propstoppers display and flight area at Middletown Township Community Pride Day*

The Propstoppers put on a super show at Middletown Township Community Pride day at the Williamson Free School. It was probably the biggest turnout since the last picnic, maybe bigger, and certainly a great deal of variety. We had a constant stream of people looking at our stuff, watching the flight demonstrations and flying the Propstoppers hand launched gliders made by the dozen by Dave Bevan and John Tripier.

You may remember that the Middletown Township organizers asked if we could provide hand out balsa gliders to the kids. Dave had researched the availability of the ubiquitous Guillows models and found that they are still available, but only through promotion materials companies, and then only with "your" logo (at great cost). So "Defender of the Sport" Dave with John's help declared that they could make them, and make them they did; 130 of them in twenty hours of grunt work and a few dollars in materials. Not only that, they actually test flew and trimmed each and every one. What a pair of guys!



*The Bevan – Tripier HLG "Hanger" Every one flight tested and trimmed for flight.*



*Dave Bevan, with some of his HLG customers. Do you attract this kind of person Dave?*

One of the things that stood out at our activity was the great variety of models and flying. Jess Davis brought out his outstanding model of the Focke-Achgelis FW-61 1938 tandem-rotor helicopter. The one Hanna Reisch flew in the Berlin Convention Hall. Jess's fine model is shown on the cover.



**Focke-Achgelis FW-61 The First Successful Helicopter**

Mick Harris brought out a bunch of Old Timers. Your editor teamed up with John Drake to do piggy back launches of John's RC hand launch glider from Dave's Miss America Old Timer; fun for both of us.

Of course John and Phil Oettinger flew electric 3D airplanes and I think Al Tamburro did too.



Our young wizards, John Drake and Phil Oettinger brought out their fleets



Mike Black flew his gas powered one. Indeed, one of the advantages for us at this event was that we were encouraged to make as much noise as we liked, and I wished we had made more noise because, although the area we selected to fly in was safe, it was also beyond the line of sight of most of the spectators who were engaged in the many other activities available to them in other parts of the grounds.



Former Propstopper President, Mike Black, made noise and display early with his Extra gas powered 3D

Your editor tried to do his part by flying a 40 year old U/C model with an un-muffled Fox 36X. This model and motor was not only 40 years old, they hadn't been run or flown in that time too. In fact, the Fox is the only one of my many motors from that era that was not frozen solid. It started right up and after the first ok flight and held a solid setting for a screamer, that I could hardly hold on to.



40 year old U/C model and motor; pilot somewhat older. The model flew great; the pilot had a more difficult time. John Drake; "I didn't expect it to be that fast" (neither did I Ed.)

Sam Nevins brought two fine scale model biplanes and Ed. Goretzka brought his Joe Elgin Elf biplane Old Timer.



Our usual staunch supporters, Mike Black, Jess Davis, Sam Nevins and Rita Tamburro watch the activities.

Doctor Mike brought out a Cox 010 powered small RC model and he and Al Tamburro proceeded to sort it out for a brief flight; the model was a bit of a handful in the small space and wind. But it was nice to see one of these little gems flying again. I really must find a source for the backplate screws to reassemble mine. I wonder how it would fly some of my Old Timer electrics? But wait, what would that high nitro fuel do to them? Not to mention the vibration.....



**Dr. Mike Cirigliano assisted by Al Tamburro, works on his neat Cox 0.10 powered sport RC model**



**The Propstoppers Raffle Prizes were donated by HobbyTown, Springfield, Dick Bartkowski and John Tripier**



Former Propstoppers President, Steve Boyajian, flew his electric powered helicopter several times; sorry Steve, no pictures.

As another fine community gesture or members sort donations for prizes for which we held a raffle. Dick Bartkowski donated a complete ready to fly RC model. John Tripier successfully solicited Hobby Town USA of Springfield and they also donated a \$150 RC RTF model. John Tripier donated an unusual helicopter model.

Although we did not see the numbers of spectators we hoped for we did sell a bunch of raffle tickets and towards the end of the day the Middletown organizer picked the winning tickets and President Dick Seiwel made the presentations later in the day.

One of the great ideas President Dick Seiwel had for this event was to invite some demonstration pilots and teams. Although he could not hook up with one of the local AMA demo teams, he did contact the top helicopter pilot from the Valley Forge Signal Seekers. He brought some outstanding helicopters including a full-on turbine powered Bell Cobra. This was quite a sight but to hear it run and see it fly was awesome, even though he only hovered it.

**Expert helicopter builder and flyer from the Valley Forge Signal Seekers wowed everyone with his turbine powered Bell Cobra**



All in all, we did the Propstoppers proud, and make our mark on the Middletown Township Recreations Department staff and leaders. Indeed, they have invited us back in the fall as they plan these to be regular events. Bring them on, we have this down.

**Dave Harding**

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# Propstoppers R.C. M.A.C



Former Propstopper President, Jess Davis, with his superb Focke Achgelis FW-61 tandem helicopter model



Thursday evening Christian Academy field regular Chuck Kime, with his collection of modified Air Hog Aeroace RC biplanes. With a few web-based modification suggestions Chuck has these \$20 toys flying better than many "real RC" models. They were maneuverable and even handled the 5 – 10 mph wind that kept some of our

## HobbyTown USA®

Of Springfield, on Baltimore Pike, supported the Propstoppers Middletown Township Community Pride Day at the Williamson Free School, with the donation of a fine RTF RC model airplane. Please support them.

*Propstoppers Picnic Saturday  
 17<sup>th</sup> June, Sleighton Field 10 am*



more seasoned flyers on the bench. Talk to Chuck to find out where to buy them and how to modify them. Check out the extensive discussion and modifications on the web ; <http://www.rcgroups.com/forums/showthread.php?t=401484> \$25 DC-3's anyone? Buy two and make a Lancaster Bomber?