



# The Flightline



Volume 37, Issue 3

Newsletter of the Propstoppers RC Club

AMA 1042

March 2007

## ***The President's Message***

Well we missed the February meeting due to the weather. Hopefully all club membership dues moneys will be collected at the March meeting next Tuesday so I can get the charter application for the club to AMA.

By the time you read this I will have changed the lock at the Christian academy; the old lock was broken.

Dr. Mike is working hard on setting the ground work for another field lets all pray that it goes through so we can dust off, no, scrub down our gas models to fly again.

Soon we have to make our commitment for flying at the Middletown Township Community Pride Day. I hope I can count on the kind of club support we experienced last year. Mark your calendars now as I will be around to get you lined up for one of the activities.

How are the Trenton Terrors coming along? Maybe someone could bring one in to the meeting.

Hopefully the last indoor fun fly was as much fun as the others.

### ***Agenda for March 13<sup>th</sup> Meeting At Middletown Township Library; Opens at 7pm meeting at 7:30 pm***

1. Membership Report
2. Finance Report
3. Field Situations
4. Flying Field Improvements
5. Review of Club Scheduled Activities
6. Plan for Cox Warbird Day
7. Old Timer Building Program Status
8. Show and Tell

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Bring in something to the meeting for show and tell.  
Thanks hope to see you at the meeting

**Dick Seiwell**

## ***Get Ready for Middletown Community Pride Day***

We don't yet know the scope of this year's event but judging by last year this was a blast. All right, the flying space was a bit limited, but it was flying space and we were encouraged to make as much noise as we liked.



Mike Black flew his 3D Extra and your editor flew a 40 year old U/C stunter with an un-muffled Fox 36X. Maybe this year he will keep up with it and perform some stunt flying!

Last year we planned to just plain run some engines for fun. This year we are going to do it. So dust off, or should I say de-grease your favorite noise maker, get some fuel, check the plug, find a suitable prop and make sure it will fit in our test stand, or bring your own. I have some old spark ignition engines I want to run and you may too. Bring them out. Maybe engine collector Ed Goretzka will select a few of his favorites to wow the younger throng, and the spectators too.

If we end up with the same flying site we need to think carefully about the kind of airplanes suitable for demonstration here. Perhaps the Cox Micro Warbirds will be ideal for this small site.... If there are any left after the Cox Warbird Day in April.

We do need some volunteers to help with this event though, please see the event manager, Dick Seiwell and ask him what he needs.

## Calendar of Events

### Club Meetings

Regular Meeting at Middletown Township Library: opens 7 pm, meeting 7:30 pm  
Tuesday 13<sup>th</sup> March, 2006

Next Meeting Tuesday 10<sup>th</sup> April 2007

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

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



### 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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<b>Propstoppers 2007 Activity Program</b>				
<b>Month</b>	<b>Date</b>	<b>Activity</b>	<b>Program Leader</b>	<b>Status</b>
March	Started	Old Timer Build	Mick Harris	Started
April	Sat 14 <sup>th</sup>	Cox Micro Warbird Day	Rick Grothman	Planning started
May	Sat 12 <sup>th</sup>	Middletown Community Pride Day	Dick Seiwell	In contact with Township
June	Sat 16 <sup>th</sup>	Aerobat Day	Al Basualdo	
July	Sat 14 <sup>th</sup>	Club Picnic	Dr. Al	
August	Sat 18 <sup>th</sup>	Electric Texaco Postal Competition	Dave Harding	Need to get team members identified
September	Sat 8 <sup>th</sup>	Scale Day	Jess Davis	
October	Sat 20 <sup>th</sup>	Walt Bryan Memorial Fun Fly	(Joe Mesko)	Need to address date or leader change
November	Sat 3 <sup>rd</sup>	Night Fly	Bob Crowell	

So far we have support from most of the Program Leaders to get these activities planned to provide a full slate of club events this year, but it takes some effort from all of us to help then scope out the activity, plan the necessary details and then support during the event. Please address the leaders as to your willingness to engage in the activity and your ideas on them.

Also, we should discuss which of these events would be appropriate to invite other area clubs to participate.

**Model Aviation History Goes Hollywood**

Well, Studio City actually, but the setting was in the home of the original Mack Sennett studio, later to become Republic Pictures, owned by Howard Hughes, and eventually CBS Studios.

The occasion was a showing of the short documentary "The Comet Model News", a film produced by Nancy Kapitanoff, the daughter of Comet's West Coast salesman. The film draws from movies and still photos largely taken by Edie Kapitanoff during the 1930's and 40's to tell the story of the origins and development of the Comet Model Airplane and Supply Company in Chicago. And what a story it is.

It is hard to imagine that in 1927, two weeks before the great stock market crash, that two high school boys could start a viable model airplane manufacturing business and build it to a million dollar corporation during the Great Depression, but they did. By the mid 30's the Comet employed a staff of 300 with twenty salesmen servicing 6000 retail accounts and selling over a million kits per year.



***The Comet Chicago Factory in the 1930's***

There were 10 and 20 cent kits which give some idea how Comet could succeed in the era when money was almost nonexistent for most people. But the aviation mystique launched by Lindberg's flight to Paris, was still a driving force in the passions of American youth, and so many dreams could be fomented by investing so little in these kits.

"Dave, would you like to go to see Nancy Kapitanoff show her Comet Story movie"? "I have two tickets for a private showing at CBS on Monday night". Would I? You bet, and so it was that Mike Myers and I drove over to Studio City. Dave Gee

of the Black Sheep Squadron, the club that flies all kinds of things in the Burbank area arranged the showing. I don't know who had the connections with CBS, but it was a top draw venue; the main theater in the headquarters building.

<http://www.cbssc.com/index.html>

There were about thirty model builders in the audience and naturally they were all talking about their modeling adventures while we waited for Nancy to make it through the usual impossible Los Angeles traffic. Eventually Nancy arrived and she was shown an original Comet model before starting the evening's activities.



***Nancy Kapitanoff***

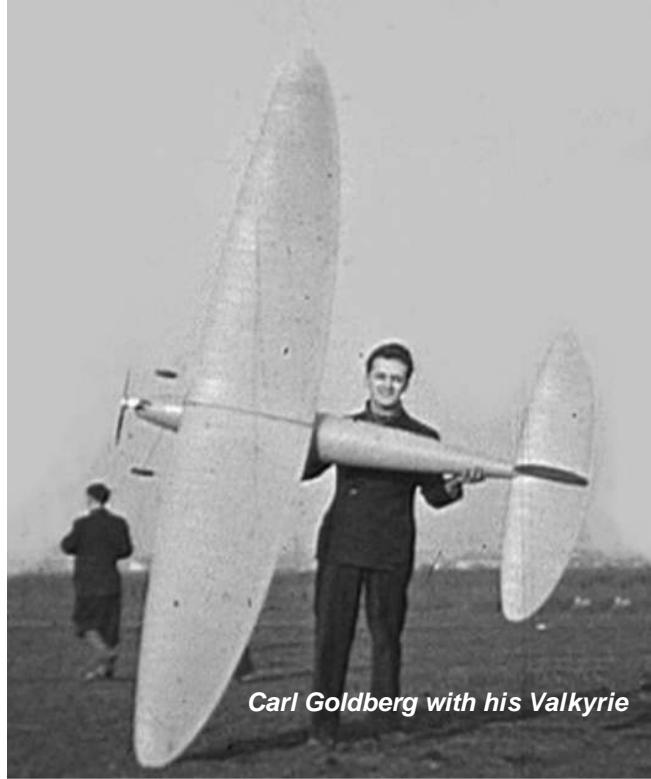
A while after Nancy's parents died she realized that she had a treasure trove of material relating to the Comet story. Her father Eddie had taken both still and movie films of various events related to Comet and aero modeling in general, including several movies of pre-war contests. Her mother was Comet's bookkeeper during the early years and when she married Eddie they moved to Los Angeles. But over the next few years the staff at Comet in Chicago's headquarters produced a monthly newsletter and Nancy's mother kept them all in a trunk.

Of course Nancy lived much of the latter years in our hobby although Comet per se went bankrupt in 1947 and the Kapitanoffs moved their activities to the model distribution business and that lasted till the 1980's.

The movie follows the Comet story from the ideas of its two high school founders, Bill Bibichkow and Sam Goldenberg as they begin making kits in the back of Bill's father's tailor shop using discarded packing case materials to the development of a substantial business. Their initial investment was \$5 and the copy of the "company's" books showed they made a profit from the first day. Eddie's cousin Louis became the third partner when he invested \$100 and started the sales department.

Comet developed a wide range of kits but in the mid 30's their flight performance claims were challenged by another Chicago modeler, Carl Goldberg. Comet hired the young Carl who went on to design several all time favorite models, including the

Zipper, Clipper, Interceptor, Sailplane and Mercury. So successful and famous was Carl Goldberg that Comet set him on a two-month US tour to demonstrate his Comet airplanes. These moments are captured in the movie.



A few days after Pearl Harbor Bill Bibichkow received a call from the US Navy. They needed help. It seems that our troops had not been trained in aircraft recognition so all our aviators were vulnerable to being shot down by friendly fire. The Navy asked Comet to develop a line of solid recognition models and the company went on to build them by the thousands.

Following an initial showing of the film Nancy answered questions and sought insights from those in the audience with first hand knowledge of these events.

This brought out one of the more remarkable stories as one of the Old Timers happened to be from Chicago in the 30's. He said that although he was from a Polish neighborhood, he had some association with the area's Mafia. Some of his buddies knew some others who made their "living" from hijacking trucks and selling the spoils. One day he was asked what to do with all kinds of balsa wood and model kits. It seems they had hijacked a Comet truck!

Following the round of discussion the audience voted to watch the movie a second time. There are so many gems that flicker across the screen for a moment that you could watch this a dozen times and still see something new.

Nancy is showing the movie on the Film Festival circuit with the hopes to move forward to either produce a DVD for sale or to find the capital to significantly expand it. There is a ton of material from which a longer movie could be made, but these things can be expensive.

Meanwhile we were treated to a brief but brilliant glimpse of the Golden Age of aero modeling, a wonderful experience at both ends of the time scale.

For more on this see; <http://www.cometmodelnews.com>

**Dave Harding**

## ***Even More California Dreamin'***

With only a few days to go, bathroom completion or not, I still had not met with SAM buddy, Dale Tower, and Dale had been telling me of a super hi-tech activity he has been brewing down on the Orange County coast. But we couldn't do it unless the weather cooperated. "Weather cooperates in southern California in the winter?" you ask! Well, yes, you see Dale has been developing a big electric powered sailplane to assault the World altitude record for this class of machine.

The current record is at 13,000 feet or so, but Dale thinks he can "push" it into the stratosphere, maybe as high as 65,000 feet! ..... The mind races and rattles off boundaries such as – how much performance do you need? - How big must the batteries be? – How do you see something at that altitude? – How do you avoid crashing into commercial airplanes at 40,000 ft on your way up, or U-2's even further up?

All in good time, but I started with the weather as such a machine necessarily has low wing loading and therefore, low cruise speeds and you can't have it being blown downwind as it will land in the next State.

Now Dale flies from the near costal Costa Mesa site of the Harbor Soaring Society, <http://www.1hss.org/> the oldest AMA RC soaring club. They also allow electrics, but no motors anywhere in the park. Fairview Park is part of what remains of the Santa Anna River estuary, a sandy barren area of open space.

The SoCal coast is usually bathed by the prevailing south westerly winds that arrive cool and moist from the long reach over the Pacific. The west coast's waters are cooled by the Humboldt Current descending from Alaska. In the winter months this usually brings early morning coastal clouds or fog. During the day the strong southern sun heats the Los Angeles basin and the resulting thermals draw the cool ocean air forming a stronger ocean breezes. Occasionally the weather patterns reverse and high pressure over the vast high desert to the north and east bring warm northerly winds that spill down over the mountains, accelerating through the passes and heating from adiabatic compression (like the air in your piston engine as it is squeezed). These hot, dry winds are know as Santa Anna's and this was the forecast for the weekend before my departure. So it appeared that my last Monday would fit between the two weather patterns and the forecast was for temperatures in the 80's but modest wind. We were set for a visit to Wonderland.

There were two essential ingredience for Dale's effort; his extensive technical background and experience with contest RC models and the expertise in automatic flight controls from two of his local flying buddies, Jim and Mike. They have formed a company to develop RPV's of different types for the US Army. Naturally the thrust of this work is in miniature GPS and autopilot hardware together with the necessary software and ground station hardware to control them. Their current airborne system is about one cubic inch and weighs about an ounce.



On this day Dale and his buddies were making a test flight with the system installed in a test hack model, a rather large glider powered by a Hacker outrunner turning a 24 inch prop through a 6:1 gearbox. Dale has a source for some very special Lithium Sodium batteries that have incredible energy density but they are only good for a few cycles, so on this day he was using a LiPoly pack. The model and its systems are set up to fly through a laptop computer and a 900 MHz RF link; up and down. Control can be either through a PC game type joystick connected to the laptop, or fully automatically. Under the auto mode a flight path is set up in the computer, consisting of several waypoints and a command altitude. The autopilot flies the model from waypoint to waypoint by commanding rudder inputs and the altitude is maintained by elevator trim at a fixed commanded throttle position.

The flight starts with the system getting synchronized between airborne equipment and the ground station, which then receives position information from the on-board GPS. The waypoints and command altitude are then set. When all this is done the system is switched to manual command mode and the model is checked with Dale on the stick.



**Pre-Flight Controls Check**

There are, of course, all kinds of settings that can be fiddled with and since this was a test flight several changes were made before Dale declared he and the model were ready for flight.



**How many Californians does it take to fly an airplane?**

Good grief, it worked and Dale steadily steered the model to the command altitude. "How did he know he was there" you ask. Well, remember the downlink? All the flight information is available on the laptop display, including a picture of the model as it flies around the waypoint course. When Dale was satisfied that the model was stable and roughly in the defined course he told the guys to switch to auto. I didn't actually see the action, but in my mind this stage is always someone typing F-L-Y and hitting the enter key! Wow, this worked too and the model commenced to fly around the course turning at each waypoint, round and round for ages, the guys declared the test good.



**Look Ma, no hands. Dale Tower "flies" his glider automatically**

Now the flight command algorithms (for you tech heads) are quite simple. The rudder command is a percentage of the difference between the model heading and the path to the next waypoint. Which way it turns is up for grabs, or the variation in model motions! But it works by golly. Eventually, Dale took back the control and proceeded to bring the model down. He was still high at the base turn and seemed to take the model off to one side to lose more altitude but soon he declared he was having difficulty controlling, but the model continued to mush slowly in a straight line, missing some trees and eventually clearing a chain link fence and landing safely in a school yard!

Remember all those controls and the PC gamer joystick? Well it seems that one of the buttons on the joystick was programmed to the ABORT function and Dale had inadvertently hit it. The abort mode holds a heading; shut's the throttle and pulls back the elevator to allow the slowest descent. Well, it worked, but they were lucky.

Now Jim and Mike had brought along one of their RPV's to test. This was a small credit card style flying wing with fully automatic flight controls; throw and watch! To fly this more safely we moved over to the back side of the park where it was completely deserted. This model probably weighs about ten ounces complete with all the automatic equipment. It operates on the 2.4 GHz frequency band. The flight control algorithm on this model is set to hold a steady flight attitude and for this test Mike "flew" it via a true gamer controller with bang-bang inputs via one of the buttons. His inputs resulted in a pitch or roll

command trim input to the basic flight control equations. So if he input a roll increment the model would turn and hold the bank angle commanded. If he input a pitch increment, it would climb or dive in a steady fashion. I am told that in the "Military" version the power is commanded "on" but an on-board measurement of acceleration. A hard toss results in full power.

*Dale with Credit Card RPV*

Today's test was with a different aero configuration. Initially they flew with fixed tip mounted fins but this time they removed them and installed a single fin and rudder. The test questions were about the stability and control for this version and what size was needed for the fin; they asked Dale if he had a razor blade to lend them for this part of the test. The digital guys have all kinds of software but they were short on hardware and tools.



Oh, I forgot to mention that this model is made entirely from EPP foam, the soft stuff, and in the best Zagi fashion it is wrapped with glass reinforced packing tape, then colored tape for finish. With such a small and simple shaped model the use of contrasting colors top and bottom is essential to seeing the orientation. The model was powered by a modest sized CD ROM type outrunner with a fairly high pitched prop using one of the

rubber band prop mount. The model seems virtually indestructible (hmmmm. .... Well, not virtually in the digital world sense, but actually indestructible). The first couple of launches resulted in a rapid return to earth but a pitch sensitivity change led to a twitchy but somewhat controllable flight whereupon it was declared that the CG was too far back for this aerodynamic configuration. Jim did the CG check using the Dave Bevan method and we were solicited to provide nose weight increments from our change pockets. Again the digierati had tape but no weights in their tool box (come to think of it, they didn't have a tool box, just a laptop and controller).

*The "Dave Bevan" method of CG checking.**Loose change for CG control*

Subsequent flights were almost flawless, at least in the sense that the model flew for a long time and covered a good deal of territory, under control. It bobbed about a bit but it was unclear if this was from air turbulence or software intervention.

*The moment of truth; launch.*

There are of course, myriad uses in the Military for such machines. This one did not have a camera but most of them do. One application of current interest is to link up the model with the vehicles in a convoy such that the circle above the path and just in front of the lead vehicle so the driver can see what is ahead.

What is thrilling to me is the almost seamless blend of Old World aeronautics and model making and flying disciplines with the latest electronics and computing technology. I can't imagine the future, but it is fun to contemplate.

Meanwhile there were several other flyers at the HSS field and we saw some other interesting models. First was a guy with the latest GWS Me-262 model. This one comes without motors or fans but you can buy the GWS items to fill the bill and that is what this fellow had done. The model's nose cone was simply detached so the batteries could be connected and he was ready.

**GWS Me-262**



This model flew superbly, with plenty of power the takeoff was excellent and it made many scale like fly-bys. This is one to get for sure, maybe in time for the Cox Warbird Day? It is a little bigger than the Cox models but it goes so fast you might never notice the scale is different.

Next up the same fellow had one of those unusual paraglider models and I always wondered how they handle all those lines and the canopy at launch. Well, it turns out to be easy if you know how as he just held the canopy into the wind and it inflated perfectly. Roll on the power and you are off.

**Paraglider  
launch  
technique**



The next model was another one to knock your socks off; a large size Spitfire ARF, in fact it was an RTF; ready to fly Parkzone machine that is complete, less flight battery, but with radio, decals and all controls installed, including ailerons, for \$150.

**ParkZone  
Spitfire RTF**



Another superb flyer, scale like in its flight profile and yet big enough to see at some distance. Gotta have one of these too. Oops, don't think I could do that until I build the Cox Spitfire for April.

Life is good.

**Dave Harding**

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# Propstoppers R.C. M.A.C



*Launch of the Credit Card RPV from the Harbor Soaring Society's field in Costa Mesa, California in early March*

## HobbyTown USA®

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### Featured Product



F-27B Stryker RTF Electric

### Future Events

Saturday 10<sup>th</sup> March; Lebanon Flea Market Trip

Saturday 14<sup>th</sup> April Cox Micro Warbird Day

Saturday 12<sup>th</sup> May, Middletown Township Community Pride Day at the Williamson Trade School.

### Membership Renewal For 2007

**Membership renewal for 2007 is now required. You can renew by mail or at the club meeting in March.**

**Don't loose your club privileges!  
 Bring cash or check and your AMA card.  
 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