



The Flightline



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Newsletter of the Propstoppers RC Club AMA 1042

March, April 2011

President's Message



The next meeting will be April 12th. It looks like the winter indoor was a huge success. I hope everyone had fun. I haven't been to the field yet but I'm sure it is a swamp so be careful. Just to let you know the Club has been asked again

to fly at Pride Day the date is May 7th but the place will be at Del County community collage on their ball field. I think it will be a good spot, so please plan to attend. Maybe at this meeting we can set all the picnics for this year also meetings to be held at the field. Please bring some show + tells if you have some. We will talk about new field and what it will be used for and hours of operation.

See you at the meeting...

Dick Seiwell

Minutes of the Propstoppers Model Airplane Club, February 8, 2010 at the Middletown library

Call to order took place at 6:35 PM by President Dick Seiwell

Roll call by membership chair Ray Wopatek showed 17 members and two guests present

Minutes of the December meeting as published were approved by the membership Treasurer's report was presented by the president and approved

Old Business:

VP Dave Bevan has been negotiating with the local site for a field. There is progress, but it is moving slowly.

The last Friday indoor fly at the Tinicum School was very successful. There is still one more date scheduled for this indoor season.

New Business:

President Seiwell discussed an invitation to participate in the Middletown community day scheduled for May 7, 2011. For this year, the name and site have been changed. It is now scheduled for the Penn State Lima campus. After a discussion, the club agreed to participate.

Show and Tell:

Dave Harding showed his replica Brown junior spark ignition motor and the skeleton of his new plane - Ethy.

Al Tamburo showed two U control combat planes he made in a short time (one day per plane). The wings are made from 1/8 inch foam core poster board folded over a yardstick spar to make an airfoil. The wings are surprisingly strong.

Larry Kuzmin showed his P47, 57 inch span all foam ARF that came with built in retracts.

John Moloko showed a B-25 ARF twin engine electric that also came with built in retracts. He upgraded the markings to make it look more realistic.

Jeff Frazier showed his latest large nitro helicopter and explained many of its features.

Adjournment took place at 7:55 PM.

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Agenda for March 8th Meeting At the Middletown Library:

Doors open at 6 pm meeting at 6:30

- 1. Membership Report
- 2. Finance Report
- 3. Show and Tell

Calendar of Events

Club Meetings

Monthly Meetings

Second Tuesday of the month.

Middletown Library

Doors open at 6:00, meeting at 6:30

Next Meeting:

April 12th

Tuesday Breakfast Meeting

Tom Jones Restaurant on Edgemont Avenue in Brookhaven.
9 till 10 am. Just show up.

Flying after at Chester Park 10 am.

Regular Club Flying

At Christian Academy; Electric Only

Monday through Friday 10 am till dusk

Saturday 10 am till dusk

Sunday, after Church; 12 pm till dusk

Special Club Flying

Saturday mornings 10 am

Thursday evenings in the Summer

Tuesday mornings 10 am weather permitting after breakfast
at Chester Park.

Check our Yahoo Group for announcements;

<http://groups.yahoo.com/group/propstoppers/>

Field Trip to the American Helicopter Museum

April 9, 11 am - 2 pm

1220 American Blvd

West Chester, PA 19380

(610) 436-9600

Beginners

Beginners using due caution and respecting club rules may fly
GWS Slow Stick or similar models without instructors.

The club also provides the AMA Introductory Pilot Program for
beginners without AMA insurance

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Minutes of the Propstoppers Model Airplane Club March 8, 2010 at the Middletown library

Call to order took place at 6:40 PM by Vice-President
Dave Bevan

Roll call by membership chair Ray Wopatek showed 15
members and one guest present

The minutes of the February meeting were approved by
the membership

The treasurer's report was given by Pete Ottinger and
approved

Old Business:

The indoor flying events we sponsored were very popular
this year. The president suggested that we try to have
one more indoor fly event probably at Brookhaven.

New Business:

The Drexel engineering team presented a report of their
model airplane building for the "design, build, fly"
competition of the AIAA.

Dave Bevan reported on the widener team RC model
progress for the international contest of the SAE. He
described their first flight attempt at the Valley Forge
Signal Seekers field. The flight was erratic but landed
successfully and undamaged. Currently they are
adjusting the model.

President Seiwel discussed the layout of a possible field
off of 352 near the Williamson school. A discussion of
possible uses took place by the membership.

Dick Seiwel and Dave Bevan discussed plans to spend a
Sunday as a club outing at the helicopter museum.

Show and Tell:

John from Drexel University showed some pictures of
their contest model. He then discussed the design
constraints and missions that they intend to fly.

Mick Harris showed his Air Cadet stick and tissue built up
model. It is electric powered and covered with Mylar and
tissue. It looks very much like it would have originally in
1939 when it was sold as a rubber powered kit.

Joe Paradyne showed his telescopic classes that are
used in medicine and dentistry for fine work. They have a
16 inch focal length to allow a comfortable working
distance.

Adjournment took place at seven fifty PM

Upgrading a B25

Growing up in an Air Force family, I've long had a love for flying; and my infatuation with WWII birds, borders between obsession and addiction. And so it was, that when I saw the Christmas sale at Hobby Lobby for the "E-rc" B-25 Apache Princess at \$157.00 (\$300 retail) my credit card was calling me! My Dad flew several missions as navigator in those B-25's and I HAD to have one. Those of you who may have seen some of my warbirds know my fondness for scale details. Opening the box I was immediately impressed with the level of detail; especially the swinging gear doors and sequential retracts. However, there is always room for improvement and the paint was beckoning me beyond my self-control. Ironically, the first step was a departure from scale. The underside was painted "sky-blue" and for the sake of visibility and orientation a fresh coat of white was in order.



Ace Hardware sells a foam-safe paint marketed as H2O. H2O is a water-based paint with a foam safe propellant and does an excellent job. For masking; I raided my wife's kitchen for the

"Press&Seal". This product is sort of a cross between wax paper and cling wrap, and has a "tacky" side that makes overspray, a none-issue. Only the critical lines were masked with Scotch painter's tape. Once the paint was applied, I added 3 red "invasion stripes" to each wing. For this task I use plain old masking tape sprayed with red paint; it's a cheap yet effective way to avoiding an inventory of expensive various stripping tapes. Now that the underside was a pristine white, a little flat black on the fingertips added the smoke/grease smudges from the engine cowling.

The next step was to paint the cockpit and landing gear compartments with a coat of flat olive-drab. While I was at it; I could not resist painting the landing gears with aluminum to cover the stock black plastic for a more scale appearance. Of course the engines were screaming for attention and again the flat black paint was used to enhance



air inlets and cover the gray plastic look of the dummy engines. A very fine brush and aluminum paint was used to detail the push rods, valve covers and gearbox to finish off the wing/engines.

At this stage it was time to turn to the computer to create a few decals. Using Microsoft PhotoDraw, I first designed the dash and console instrumentation for the cockpit. Water-slide decal paper can be obtained from Papilio (<http://texascraft.com/hps/home.php>) or Decalpaper.com.



Papilio is a bit better and both inkjet and laser papers are available in both clear and white. If you have access to a color laser printer, laser is water-proof and negates the need for a clear

water-proof spray treatment. Once I finished and applied the cockpit decals, I fashioned the steering yoke from



lead solder and some brass tubing. I had mentioned to my wife, "I wish I had a small Snoopy figure for the pilot". Women love to shop; and she found the perfect size Snoopy and Woodstock figures for the pilot and co-pilot. Talk about your sweetheart; wow! A few small size wire-ties were

cut, painted and pushed into the center pilot's console for the throttles. A few more decals were drawn up to add some bullet holes across the wings and fuse printed up on white decal paper, and a few bullet holes for the nose gunner glass with clear decal paper. To complete the project, I made a few "Hamilton Prop" decals for the 3-bladed counter rotating propellers.



I swear I could hear those engines coming to life!

John Moloko

Landing 101

One of the phrases you'll hear often at the field is "Takeoffs are optional, but landings are mandatory". It stresses the fact that we can choose whether or not to put our plane into the air, but once we do it's coming down one way or another. We as pilots are the prime factor that determines if the plane comes down as a lawn dart destined to be a useless pile of balsa, or a functional aircraft ready for another flight.

Despite the importance of landings, it seems that it is one of the least practiced operations in the simulator. In reality, it is the most important item to practice for new pilots once they have mastered flying in all orientations. It is human nature to want to focus on the "fun" aspects of flight, but unless a plane's pilot has mastered landings, it will only fly once.

It is one of the best applications of a simulator, allowing a new pilot to get the feel for landing without the expense of crashing, and providing the new pilot with an extra sense of confidence when it comes time to do it at the field for the first time.

Elements of a Landing

The landing technique I'm describing can be broken down into several distinct steps: The entry, downwind leg, base leg, final approach, then flare and touchdown. It is a simplified version of the landing technique used by full-scale pilots, minus all of the traffic control communications.

A landing pattern is either right-handed or left-handed.

This refers to the fact that you are making all right or left-handed turns as you proceed from the downwind to the base leg, and then on to final approach. Since we never fly our planes over the pits, the right-handed pattern will be used when landing from the right to the left, and the left-handed pattern will be used when landing from the left to the right. Which pattern to use is determined by the geography of the field, and the prevailing wind pattern.

When not constrained by other factors, such as tall trees that would interfere with the pattern, choose the pattern that will result with the plane facing into the wind as it lands. This will allow for a slower approach, and give you more time to make a gentle touch-down. I will be describing a right-hand pattern since our field at Christian academy lends itself to this given the tall trees to the left of the runway as viewed from the pits.

Entry

Enter the pattern on the side of the field opposite the final approach. Start at altitude of about 200 ft and adjust the throttle to about 50% – enough to maintain a nice slow cruising speed, but well above the stall speed. Make sure

that you've started the pattern with plenty of battery left.

Plan on making several attempts at a landing before finally touching down.

Downwind Leg

Once you've entered the pattern, fly straight and level, parallel to the runway on the side opposite the pits from the left to the right. As the plane passes the center of the runway, begin reducing throttle. The nose will drop, and the plane will start to descend. Use the throttle to adjust the rate of descent. Using too much elevator will reduce your airspeed, and may introduce a stall. You will get a feel for the best rate of descent for a given plane and field with practice. Once the plane has passed the end of the runway, begin preparing for the turn into the base leg.



On the downwind leg

Base Leg

At the Christian Academy field, I find the best place to enter the base leg is just past the fence between our field and Sweeney's lot. This gives you plenty of time to line up for approach, and gives you a good perspective on the approach angle, preventing errors due to depth of field issues.

One of the difficulties in the simulator is that you're flying in a three dimensional space projected on a two dimensional screen. Depth of field is lost. However, depth of field is a challenge at the field as well, and if you've mastered landings in the sim, you'll do well at the field as well.

To help remedy the depth of field issue, I find it helpful to pick a landmark that is in-line with the runway, and visualize a line running down the runway towards the landmark. Make the turn from the base leg to the final approach with the plane appearing above the line, then fly the plane above the imaginary line all-the-way to the runway. Without having that imaginary line in your head, it is very difficult to tell if you're in-line with the runway, or

on the way missing it entirely.

At the point where you're ready to enter the base leg, simply maintain speed and keep the nose down as you make your turn. This will help prevent a tip stall which can occur when the wingtip on the inside of the turn no longer has enough airspeed to maintain lift, resulting in loss of control. Perform a nice, smooth, 90 degree turn until the plane is flying perpendicular to the runway. At this point, continue flying straight until just before the plane is above an imaginary line running down the center of the runway, and make another slow, controlled 90 degree turn. At this point the plane should be flying in-line with the runway, and should appear to be flying towards you.



An imaginary line down the runway helps you keep the plane on path during the final approach

Final Approach

Now the fun begins! You want to time your descent so the plane will touch-down in front of you. Continue to control the rate of descent with the throttle. If you time the turn coming out of the base leg, you should be in-line with the runway. If not, you are better off aborting the landing and going around again.



If you're not down by now, go to 100% throttle while you still have time to make another go-around. Otherwise you risk running out of runway. Runway behind you is useless!

Flare and Landing

Try to land in the first quarter to third of the runway. If you haven't landed by the time the plane reaches the point on the runway directly in front of you, wave-off and have another go-around. This is particularly important at the Christian Academy field because of the tall trees past the end of the runway. Depending on how much power your plane has, you may need to raise the throttle to 100% and start pulling out in order to clear the trees. Waiting too long to make the decision wave off will either result in a rough landing in the tall grass past the end of the runway, or a plane stuck in the trees. If, however, a non-standard landing is required, REMEMBER, tall grass is softer than trees.

If you are ready to commit to the landing at this point, simply kill the throttle and give some up elevator. This will raise the nose, reduce the air speed to the point where the wings stall, and the plane touches down for a nice soft landing; all to the cheers of your fellow fliers.

Tips for the Sim

If you are new flying, and want to get the most out of landing practice in the simulator, I recommend the following:

1. Use a trainer-class aircraft. In RealFlight I recommend the Nextar or the Nextar EP.
2. Start with a simple photo-field. A nice, wide open field like "Sod Farm" lets you focus on the mechanics of landing, rather than avoiding obstacles around the runway. Photofields are good for computers with limited hardware, providing smoother response and screen updates.
3. Try the landing trainer in RealFlight. Some folks love it, others hate. You'll need to decide for yourself. Some of the things that it has going for it is the fact that it places arrows in the sky to guide you through the pattern, and draws a line between your plane and the ground to help you line up your approach.
4. Once you've mastered the Sod Farm, try the "Flight School" airport. There are a lot of obstacles near the edge of the runway to keep you honest about landing in the center of the runway. Once you've mastered landing at this airport, you're ready for the real thing.

Practice, Practice, Practice

Not only is it the way to Carnegie Hall, it's also the best way to insure the safe return of the airplane that you've invested so much time and money on to Terra firma.

Start in the simulator. Get to the point where you can land smoothly and safely every time. Try throwing in wind variations, and make sure you can do left-handed as well

as right-handed patterns.

Once you're ready for the real thing, practice the pattern without touching down. Start by stopping your final approach 50 feet in the air, just to make sure that you are getting lined up with the runway properly. After you've managed that, start coming a little lower with each pass until you are doing touch-and-goes. The next step after that is the actual landing. Simply do a touch-and-go and kill the throttle as you touch down.

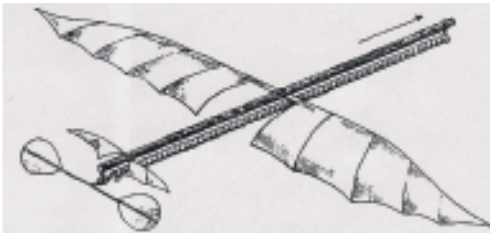
Greasing the plane in on a nice smooth landing is a great feeling after a flight. Touch and gos are a relaxing way to spend a pack. Keep practicing, and smooth landings will be second nature. It will also give you an extra bit of confidence in the event that you need to make an emergency landing due to a power failure.

See you at the field!

Mike Williams

Ethy and the Brown Jr. Engine

Model airplanes have been built and flown for well over 100 years. Perhaps the first really successful model was Alphonse Penaud's Planophore rubber model flown in the Tivoli gardens in Paris in 1871



In the early part of the last century the model of choice in competition

was the Twin Pusher.



Picture Copyright Nancy Kapitanoff, 2006
 . This picture which was probably taken in the early '30s includes the great Carl Goldberg on the left.

This all changed in 1932/3 with Bill Brown's Brown Jr. engine and his flying buddy Maxwell Bassett's airplanes. Here is an excerpt from Bill Brown's biography on the AMA website;

In 1932, the ruling authorities at the National Championships (Nats) had only one classification – powered models. In order to encourage contestants to be innovative, any power source could be used, but almost all contestants used rubber power. A very few used compressed air with limited results. Maxwell took their “gas model” to the Nats at Atlantic City and entered it. His model that he named Miss Philadelphia came in fourth. To some perceptive people this was the “end of innocence,” as the gas model had arrived! To others, though, including the “rule makers,” this was just a passing fancy that would create little further interest. The next year Bill and Maxwell both showed up at the New York's Roosevelt Field for the 1933 Nats with several different models and engines. They won first place in all three powered contests: stick model Mulvihill with a time of 14 minutes 55 seconds, Cabin model Stout with 22:22 and Moffett International with 28:18. There was one other gas model entered also, the K.G.



<https://www.modelaircraft.org/files/Brown-William-Likens-Bill-IV.pdf>

<http://www.craftsmanshipmuseum.com/BrownJr.htm>

<https://www.modelaircraft.org/files/Bassett-Maxwell.pdf>

The Brown Jr. 60 engine was in production for many years prior to WWII and it changed the whole character of the model airplane hobby.

Of course other engine manufacturers saw the art of the possible and improved on it and the same was true of the airplane designs. The early successful designs began to morph into a different style in 1938 to include the wing mounted pylon. This was an approach to handle the increasing power in the climb. Remember these models were free flight. Once you let go they were on their own and the later models began to climb at very steep angles. The pylon mounted wing allowed for a stable spiral climb.

Of course model design development continued at an

accelerated pace following WWII with each branch following a different path all of them far removed from these early models.

In the 1960's a group of flyers decided to preserve the approach and mode of flight of the pre-war era, the era when the basic successful designs evolved. They formed the Society of Antique Modelers and began the process of collecting the design plans and the old engines used to power these models. Of course some of them wanted to hold competitions with them and so began the SAM Championships, initially with only free flight models.

Eventually some recognized with radio control you could still hold competitions but in smaller fields. And of course when electric power became practical they included classes for these too.

But back to the story; SAM maintains two basic divisions Old Timer; any pre 1943 model and Antique; pre 1939.

And they hold particular events for Brown Jr. powered Antique planes.



At the 2010 SAM Champs RC Contest Director, Don Bekins, SAM President Ed Hamler and Brown Jr. aficionado Jim Hainen decided to feature Brown Jr events with the results that over 20 people participated in Limited Engine Run and Texaco events. Here are some of the competitors with their engine winnings donated by Jim Hainen.

I have asked if these rules will be used in the 2011 Champs, indicating I would acquire a Brown Jr. and compete if they do. Well, having made the offer Don Bekins offered me the Brown he won last year and just to



Herb Wahl Brown Jr engine

<http://www.collectair.com/vintageengines.html>



A Brown Jr. engine was awarded to the overall winner, which turned out to be the CD Don Bekins, shown here with his Folly model.

make sure I would have what is needed I also bought a New In Box Wahl Brown Jr. replica.

Having gone this far I needed to build a model, and since I have another project on the horizon I needed one that was a quick build. I selected the Ethy, a 72 inch span 1938 Antique design, and



bought a short kit from Bob Holman. A short kit contains a plan and all the complicated parts laser cut from sheet balsa. You supply your own strip and sheet balsa to complete the materials.

So far I have constructed the primary structure having modified the design to allow for a two piece wing and



removable vertical and horizontal stabilizers. This model will fit in a hard golf travel bag/box so I can take it to the Champs in Las Vegas, where we fly on the El Dorado dry lake.

Dave Harding



Larry Kuzmin and John Moloko shows us just how far you can take the new foam warbirds hitting the market with lots of customization and detailing. See John's article for some of the tricks that he used.