The Flightline

Volume 42, Issue 7/8 Newsletter of the Propstoppers RC Club AMA 1042 July/Aug 2012

President's Message

The July meeting was cancelled due to the library's making temporary changes. Our next meeting will be Tuesday, August 14th. Unfortunately the library again is using the meeting room so we will meet at Christian Academy Field, weather permitting, Meeting 6:00 p.m. flying before and after.

Both fields are in great shape.

Thursday night at the Christian Academy field is still on for flying after dinner, so come on out and join the fun.

See you at the August 14th meeting.

Dick Seiwell

Agenda for August 14th Meeting At Christian Academy Field; meeting at 6:00

1. Membership Report
2. Finance Report
3. Show and Tell
4. Flying before and after

INSIDE THIS ISSUE

Minutes of the Propstoppers Model Airplane Club

June 12, 2011 at the Middletown Library.

Call to order took place at 6:39 PM by Vice-President Eric Hofberg
Roll call by membership chair Ray Wopatek found 13 members present
Minutes of the May meeting were approved
Treasures report by Phil Oetinger was presented

Old Business:

President Seiwell first talked about the Elwyn Field and the scattered poison ivy. This will be treated soon. He reminded us not to park over dry grass because of the risk of fire from a hot catalytic converter.
Eric Hofberg talked about moving the prep table at CA field to the side so will not obstruct flyers.

New Business:

Dick Seiwell noted that our last club picnic will be September 22nd.

Show and Tell:

Jeff Frazier brought the banana hobby T – 28. It comes with all components installed except receiver and battery. It has a retractable gear along with flaps and a set of lights for night flying.

Mike Keenan showed some under cabinet lights that normally run on 12 volts that are quite effective when used for battery discharging.

Adjournment took place at 7:35 PM.

Since the July meeting was cancelled (see the President's Report) there will be no minutes for that date.

Dick Bartkowski, Secretary

Newsletter Editor Change

Our Newsletter Editor Mike Williams has had to resign his position due to pressure of work. Mike is a one-man business working in software development for some big and important companies and meeting his commitments with them must come first. I want to thank him for performing this time consuming and difficult task for the last two years and ask you all give him thanks when you see him at club events.

Dave Harding has once again agreed to take this position and we ask you all support him with plentiful inputs of articles, pictures and hints for special material in future editions.

Dick Seiwell, President

Calendar of Events

Club Meetings

Monthly Meetings
Second Tuesday of the month.
Middletown Library
Doors open at 6:00, meeting at 6:30 pm.

14th August

Tuesday Breakfast Meeting
Tom Jones Restaurant on Edgemont Avenue in Brookhaven. 9 till 10 am. Just show up.
Flying after at Elwyn or CA Fields 10 am.

Regular Club Flying

At Christian Academy; Electric Only
Monday through Friday after school till dusk
Saturday 10 am till dusk
Sunday, after Church; 12 pm till dusk

Indoor Flying

TBD

Special Club Flying

Saturday mornings 10 am
Wednesday Helicopter evening in summer
Thursday evenings in the Summer
Tuesday mornings 10 am weather permitting after breakfast.

Check our Yahoo Group for announcements;
http://groups.yahoo.com/group/propstoppers/

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.

Propstoppers RC Club of Delaware County, Pennsylvania.

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Batteries and Electric Matters

I have noted several references to modelers going to higher voltage systems, some with two parallel 6 cell LiPos ~ 43 volts nominal, 50 volts peak.

I remember back in the 90's the Society of Automotive Engineers, SAE, had a group promoting 48 volt systems for future vehicles to more efficiently handle the expected higher electrical loads. They picked the 48 volt limit based on safety. Apparently there is a recognized 50 volt electric shock limit;
http://en.wikipedia.org/wiki/42-volt_electrical_system

I have seen no suggestions that modelers should avoid or handle with extreme caution such systems. I communicated these concerns to MA columnists Greg Gimlik and Red Scholefeld and asked them to engage the issues through their column. We certainly don't want to read about *Fred's son electrocuted by his toy plane*! We have only just surmounted the LiPo issues (I think☺).

Battery Matters Part 2

I have several high quality LiPo batteries purchased for SAM competitions where we stress them close to the limits for fairly short times and only a few flights. My batteries have survived these flights and subsequently my use has been in my big Delta, F-22 and Tiger Kitten where the current is way below limits and I usually discharge them to only the 50% level.
But recently I have had a couple of them puff up. What is going on here?
Then the penny dropped! I have this habit on leaving the field after a flying session then leaving the models and all paraphernalia in my van. Now the van sits in the blazing sun all day on a wide blacktop driveway and next to the brick house wall; it bakes when the sun is strong and the temperatures high.
I often leave them there for several days. Recently we have had sunny days in the mid to high 90s and it occurred to me the batteries may have exceeded the critical 140 degrees just from being in the van.

Over the last few days I have left a recording thermometer in the van and although it has not been quite so hot, or I have used the van, I note the maximum temperature has recorded at 122 degrees F.

Some years back I ran a study for the Army on composite structures for helicopters. Boeing has a long history with composites and our rotor blades were transitioned over to composites at a fairly early stage. Most of those are built from pre-impregnated glass with some graphite in an epoxy system that cures at 180 degrees. Other structures are often made with systems that cure at 350 degrees.

Now composites lose their strength when "hot and wet" and (further when slightly damaged: hot wet damaged strength in graphite can be only 50% of the cold, dry, undamaged). At a temperature slightly above cure the epoxy reaches a "glass transition temperature" where it sort of turns to chewing gum. Interestingly enough, you can move the glass transition temperature Tg by post-curing the part, and I note the glider guiders post cure their molded parts, but I digress.

During the course of the study we found that aircraft structures, and other things like tents, can reach 190 degrees under the most adverse conditions. I have no idea how hot my van could be but it could easily be over 140 degrees.

Am I off base in assuming my batteries could be damaged by this? Should we (you guys) tell the modeling population?

Dave Harding

Flying Field News

This past week while flying at Elwyn I had a chance encounter with Bruce, the head groundskeeper. He told me that Elwyn intends to cut all the high weeds and grass down and spray that entire area to kill the poison ivy. I don't know when this is scheduled to take place, but this is certainly good news for us. He also repeated and earlier statement that they are very happy with our presence at the field. Let's keep it that way ☺

Eric Hofberg

Flying Heads Up

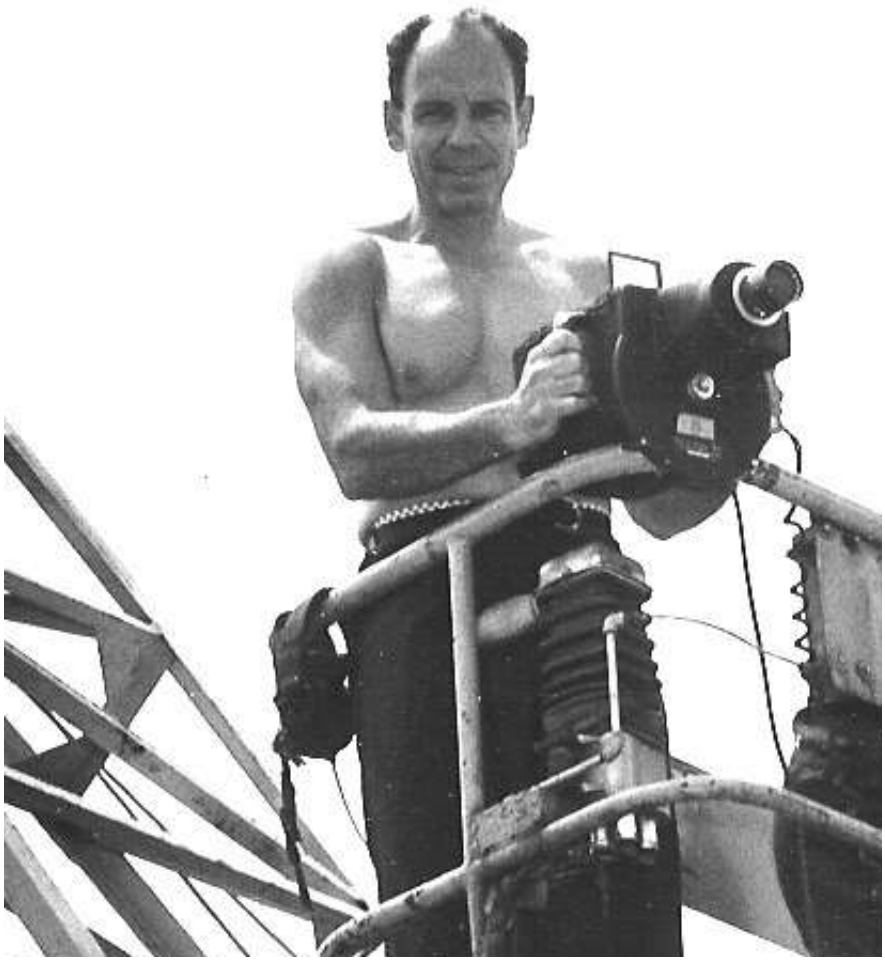
Several members have called me over the last months asking if anyone is going flying, or sometimes saying they are alone at the field, where are all the others. So, just a reminder, if you are going to fly please send a note to the Yahoo Group. Also, if you want to fly send a note asking if anyone will join you.

Dave Harding

June Club Picnic

The club picnic was held on June 16th, and we were blessed with good weather, good food and lots of flying. Thanks go to Jeff and Phil for providing the shade and Jeff and Rosa for obtaining the food. And as always, thanks to Tina for her wonderful dessert. If you missed this picnic, our next one is scheduled for September 22nd starting at 11:00 a.m. Come on out!

Eric Hofberg



Sam Nevins 1919 -2012

We just lost Sam Nevins, a prolific modeler and long time Propstopper. We will miss him.

Below is a reprint of an article we published on Sam in 2009 and another previously unpublished.

Senior Propstopper, Sam Nevins

I know Sam Nevins will forgive me to tell you that at 90 years of age he is still enthusiastic about aviation. I don't know if he is still the "building machine" he was just a few years ago but I do know he responded to my request for material to inform the members of our accomplishments.

For most of his working life Sam worked for the US Navy. Some of you know the Navy was in the aircraft design and fabrication business at the Philadelphia Navy Yard and more of you probably know that when the Navy abandoned its own endeavors it took on the role of developing design standards and testing them at the Navy Yard.

"Our" Sam was a photographer supporting these tests and he recently sent me the following newspaper article describing one of his contributions to carrier plane arresting tests. Here is the story;

Photographer's Idea, Device Aid Arresting Gear Tests.

"I'm doing the things I like to do!" That's the way Sam Nevins, photographer at the Naval Air Material Center, summed up his interest in the camera arts.

A veteran of 17 years at the Center, Sam, an idea man, has been time-exposed to the establishment. He was an aircraft electrician, instrument mechanic, and aircraft mechanic general before going to, the: Photographic Department two years ago.

A native of New York City where he went to school, Sam. came up with skyscraping idea within the past year which has helped provide better photography results at arresting gear tests.

Arresting gear tests always imposed numerous problems in obtaining the best possible Photographic coverage.

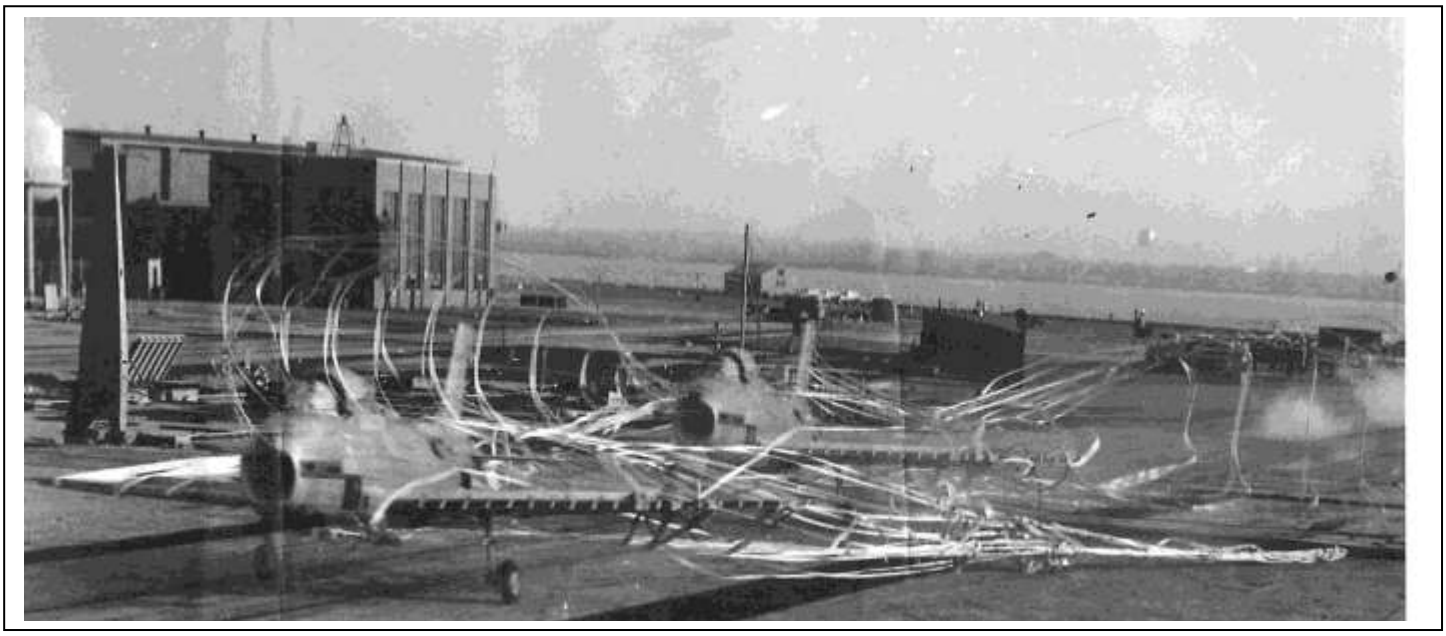
Detailed, still photographs of actual impact have proven exceptionally valuable when obtained. Even increasing speeds and necessary safety precautions combined to continually lower the percentage of good photos on these tests, according to Photographic Officer Owen Koehler,

"One day the Sites Engineer, Charles. Abramson, wondered if it were possible to take pictures at a closer range without endangering personnel. Nevins believed that the percentage of good photographs could be raised to a maximum with certain modifications to a standard camera. According to his theory remote control could be used to eliminate the danger of a photographer being as close to the action as was necessary for the camera. The remote control was accomplished by having the cable actuate a microswltch which in turn triggered the camera."

"The speed of the action and the angle at which the photograph should be taken eliminated the use of the between-the-lens shutter. Shutter speeds had to be increased beyond the 1/400 of second maximum_of this shutter. The focal p1ane shutter, with a maximum of 1/1000 of a second had to be utilized. The principal of the focal plane shutter also presented the possibility of two successive exposures because of the principle of this type shutter. http://en.wikipedia.org/wiki/Shutter_(photography)

Nevins made a rough modification using electrical power and a solenoid to actuate the shutter level. The use of the cable to trigger the mechanism removed the human error in determining the split-second timing of the exposure. It also allowed the camera to be placed close to the .action without personnel in the area. "The use of the focal plane shutter solved the problems of the rapid motion and permitted sharp pictures relatively free of motion blurring," said Koebler.

Nevins said he used his "homemade" modification at the sites several times. The idea impressed both. Abramson and. Lt. Hotchkiss, Sites Officer. The latter asked Nevins to make a sketch along with his modified version. This was submitted to the NAES (SI) Shop Assigned Engineering where expert craftsmen. with a professional touch "polished up the rough edges." Nevins, thus far, has already a beneficial suggestion award for the idea. Only time will tell what the future holds for the "brainstorm" or how far it will go.



Some time back Sam gave me the following material for a newsletter article. Shame it had to be after he passed, but here it is in celebration of his very active life.

The attached photos have never before been seen by the public. They were taken in 1961 at the Lakehurst, NJ. US Navy test site. The approximately one mile long catapult was one of four at this facility. I worked with the engineer to develop the most effective photographic record possible.

A fuselage section was placed on a carrier. A special camera using a 100 foot roll of 120 film. The camera was set to take 20 frames per second at a shutter speed of 1/1000 second. The ejection seat was developed by Martin Baker in England.

As you see the speed of the catapulted fuselage was faster than the seat.

A Bad Day in Modeling

LOYALTY

We have all heard of Hung, the Free Flight god of thermals. Well, Hung and I have had an encounter or two over the years. But I always felt he was just, and only took models *fairly,* with malfunctioning timers, no D/T, et cetera. However after a recent day in the shop I feel I have met the other hand of Hung: the god demanding loyalty to Free Flight.

Many of us that love Free Flight also have on occasion built other model types and I decided to build a control line Nobler. Oh, the memories of flying under the lights at the little league field in Opa-Locka on Wednesday nights. The model went together well, got a 60th Anniversary Fox .35, and even found time to get some models ready to take to Palm Bay for our annual "hush up" (no power models) Free Flight meet. Saturday morning came and; well let's say things were not working out so I decided to wait until Sunday for Free Flight Ah! An opportunity to finish the Nobler. It was covered with Polyspan and had three coats of Nitrate. However, this was a Free Flight meet weekend and I guess Hung took his revenge.

The day started nice and quiet in the shop, as I started masking off the model. I had decided to go red on top, blue on bottom with a yellow separation, and white pin stripes and numbers. I had some red, yellow and blue Polyspan dye. Really nice stuff, but it must be sprayed, so I got out the airbrush. I started with the yellow and for mixing I was using a syringe. One wing and side went well and I was refilling the air brush bottle when the syringe "jammed" and a little extra pressure sent a shot of yellow dye dope into the container that splattered all over me, the model and the ceiling of my shop. Well except for one small spot all the mess was contained by the mashing, so I finished the yellow. Next was the red. This time I abandoned the syringe method and went to pouring into a small container. Not sure how but I knocked over the open bottle of red dye right in my lap and onto my feet. Man that stuff is bright. I now have a very nice red spot on my shop floor to match the yellow ceiling. Oh, yeah: I was wearing shorts and sandals. After the clean-up the red actually went on well and looked real good. I started to redo the masking for the blue, and my scissor blades were sticky, I guess from the tape. So I reached for the can of MEK and a rag and started wiping the sticky residue off, and, you guessed it, I slid my finger along the blade and separated the epidermis. First reaction: stick the bloody finger in my mouth. I now know what MEK tastes like. Could not find a band aid, so I CA'ed the wound shut, and after a brief recuperation, proceeded with spraying the blue. First pass was nice then the brush just decided to splatter a mess all over, then not spray, then... Finally I threw the whole contraption away. Can this be salvaged? I know Polyspan dye needs to be sprayed, but I do have a foam brush; maybe I can just smooth out the bad spots. NO! Oh No! It is now only noon, but I closed up shop with thoughts of having to recover.

After lunch a honey-do sent me to the Home Depot...and there was this real nice small touch-up spray gun. Honey-do can wait. On the shelf I had a can of black and a part can of red Klass-Kote epoxy. I can cover the Nitrate-based mess with epoxy. Red and Black, forget the yellow stripe. Looked around and did not have any mixing containers but saw a plastic cup (yes I knew better, but it was just for the purpose of transferring the liquid). Both parts went into the cup and I set it on the work bench and went to turn on the compressor and hook up the new gun. Gun had a male thread and the hose had a male thread. So I started rummaging through the junk drawer for a coupling. Success! Let's thin the epoxy and spray. Yes the cup melted and I now have about a half-pint of black Klass Kote all over my bench dripping onto the floor. After clean up, I was looking for a container and notice a can of soup in the kitchen. Shoot at this point I'd pay a buck and a half for a container and it had a pop top. I didn't even need an opener. Removed the contents (mushroom), rinsed the can and took some paper towels to dry the inside. I now know that with the pop top there is this sharp ring around the top. Yes I sliced the other end of my finger right across the knuckles. No band aids, back to the CA. After a short recoup, I mixed the black Klass Kote in the soup can and sprayed the model. The black covered the blue mess perfectly. We are finally on a roll. By now it is five o'clock somewhere.

After an almost appropriate cure time I proceeded to mask off for the red to cover the not so perfect red/yellow strip. But the red can top is frozen on. No problem. Put the can in a vise and twist the top off with a monkey wrench. Success! And the contents are still liquid. Sat the can on the building table in the middle of the shop, and went back to the kitchen for more soup. This time the beef broth was carefully removed. I do learn some things. However, apparently I had tightened the vise a little too tight and the red Klass Kote had leaked all over the table. I was able to "squeegee" up with a piece of plastic about an ounce, should be enough. After clean up, the red sprayed on beautifully. Removed the masking and later added the pinstripe tape.

I now have a respectable Nobler, a yellow splatter on the shop ceiling, a red spot on the floor, and black epoxied work bench, and red epoxied table. Not to mention two finger cuts, one ruined pair of sandals and red feet, two ruined tee shirts, two ruined pair of shorts, and a ruined bath towel (that's gonna cost a honey-do). But Sunday morning came and I left early for Palm Bay. Beautiful day. Hung was apparently appeased. Lots of on-the-field maxes, no OOS, no crashes, and all models were found. So whoever it was that said, "a bad day modeling is better than a good day at work" apparently was not a Free Flighter that knew the wrath of Hung.

Imagine if I had been building an RC pattern ship.

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