



# The Flightline



Volume 46, Issue 1 Newsletter of the Propstoppers RC Club AMA 1042 January 2016

## President's Message



Tues the 5<sup>th</sup> of Jan. The locks have been fixed on gate. But we're working on a fool proof method; ha ha! Call me if locks will not work. Both fields are in great shape. (My number on next page).

Indoor flying January 16<sup>th</sup> at Brookhaven. The indoor flying after breakfast is working out well; about 1 1/2 hr. of flying time and about 10 flyers.

As always we could use some show & tell at the meeting please help out. The club has donated soup to the church the same as last year. We will take care of Elywn in the spring as before.

See you at the meeting doors open 7:00

**Dick Seiwell, President**

*Agenda for January 12th Meeting At  
At the Church Room, CA Field  
Meeting 7:00pm till 8:30?*

1. Show and Tell
2. Membership Report
3. Finance Report
4. Club Calendar Review

### Indoor Season

**Tinicum; February 12, March 4, 2016**

**Brookhaven; 1/16, 2/20, 3/19 2016**

**All 6:30-9:30 pm**

### **Minutes of the Propstoppers Model Airplane Club At the Christian Academy meeting room December 8, 2015**

Call to order by President Dick Seiwell took place at 6:30 PM when he opened the door and welcomed the members.

This meeting included our indoor holiday picnic. The club provided great hoagies and several side dishes for the event.

23 members attended and engaged in animated conversation about our mutual interests in the field of model aircraft.

Secretary Dick Bartkowski suggested we consider allowing more time at the monthly meetings for general conversation.

### Show and Tell:

Ken Merlino showed an E-Flite seaplane with a wing pontoons and a pylon motor. He is waiting for a good flying opportunity to try it in the air.

Brian Williams showed his new quadcopter that comes with lights and camera.

Larry Woodward showed how he hooked up 2 mini single cells so he can use his 2 cell charger to analyze and charge the batteries.

Mike Williams announced that he is moving to Houston soon and will no longer be part of the club. He thanked the members for the good times he had at the club.

Adjournment took place at 8:10 PM

**Dick Bartkowski Secretary**

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# Show & Tell

## Calendar of Events

### Club Meetings

#### Monthly Meetings

Second Tuesday of the month.  
Gateway Community Church at the Christian Academy. Doors open at 7:00

**Next Meeting; 12<sup>th</sup> January at Church Meeting Room**

#### Tuesday Breakfast Meeting

Tom Jones Restaurant on Edgemont Avenue in Brookhaven. 9 till 10 am. Just show up. Flying after in the summer at CA or Elwyn Field 10 am. Weather permitting. Indoors at the Brookhaven Gym in bad weather 10:30-11:30 See dates allowable.

### Regular Club Flying

At Old Christian Academy; Electric Only  
Monday through Friday after school till dusk  
Saturday 10 am till dusk  
Sunday, after Church; 12 pm till dusk  
At Elwyn Field; Gas or Electric  
Monday through Saturday 8 am till dusk  
Sunday 12 pm till dusk  
INDOOR Flying, see attached dates.

### 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/>

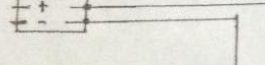
### Beginners

Beginners using due caution and respecting club rules may fly Apprentice or similar models without instructors at Christian Academy Field. The club also provides the AMA Introductory Pilot Program for beginners without AMA insurance.

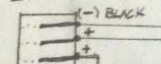


## TESTING HARNESS FOR 1S Lipo BATTERIES

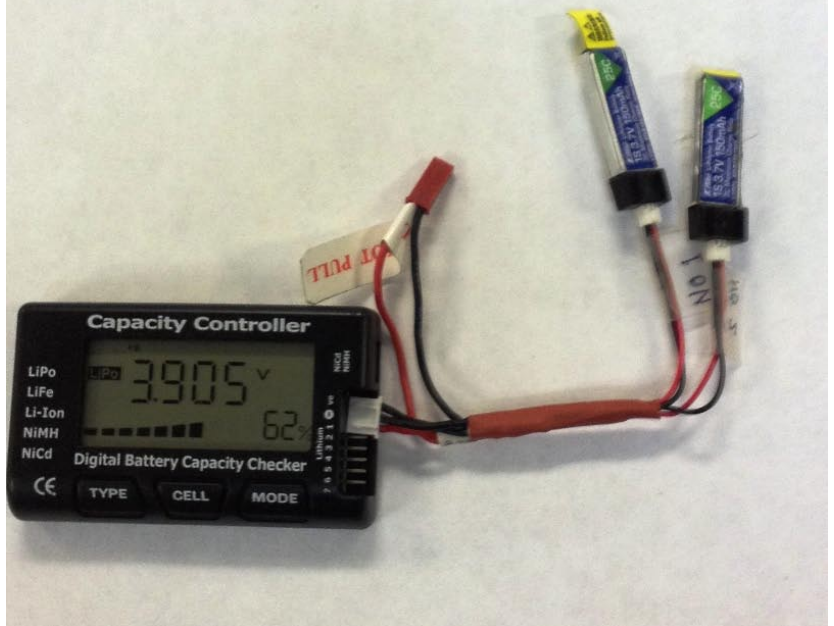
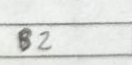
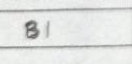
"OPTIONAL"  
BATTERY CONNECTOR (DEANS)



2S BALANCE PLUG  
(-) BLACK



1S Lipo BATTERIES (2)



"This device provides two female connectors for attaching simple 1S cells to connect them together with a standard balance connector. Your multi cell volt meter will now "See" this as a regular 2S battery and will show you a volt reading for each 1S cell. In addition a small JST connector ties the two cells together in series. You could connect this, along with the balance connector, to a 2S balance charger and charge two 1S cells simultaneously, as long as they are the same Mah size and within allowable voltage differential. If your charger has the appropriate features, this setup will also allow you to test internal resistance, an important factor in judging battery condition.

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Mini battery connector leads are available from HK here:

[https://www.hobbyking.com/hobbyking/store/uh\\_viewitem.asp?idProduct=30665](https://www.hobbyking.com/hobbyking/store/uh_viewitem.asp?idProduct=30665) "

The Indoor Picnic was a great success. Not only were the members pleased with the food they particularly enjoyed the time to just chew the fat about things we enjoy. Indeed, Dick Bartkowski opined that perhaps we should provide more time for just plain discussions at our club monthly meetings.

Ken discussed the challenge in waterproofing the electric equipment in this "seaplane" and at the same time keeping the components cool. Perhaps he should discuss this with Larry who has faced the same challenges. Al Cheung told us he spent \$200 learning how a few years ago when he started flying in his house on one of the NY Finger Lakes.





At The Fields; Late Year Deltas at Elwyn



# Indoor Developments

There is a growing movement in building and flying rubber powered free flight models at our indoor meets.

This started in several directions. First there are the RTF Butterfly miniature tissue covered models which have been flown for years, but more recently there have been several thrusts, one being Mick Harris returning to his free flight rubber roots and building a variety of scale or old time rubber models.

Of course you must be careful building these models so they don't weigh too much but then you need the skills to develop the flying factors. These run from the correct rubber motor and propeller selection to the trimming for successful flights in the confined space. The ideal flight is one that takes off then climbs and turns to avoid contact with the walls, and then slows so it does not contact the ceiling. If you get it right the model then slowly descends to a smooth landing. Mick knows how and so does Dick Bartkowski, who once regularly flew such models with a club that flew in a Fairmont Park mansion.





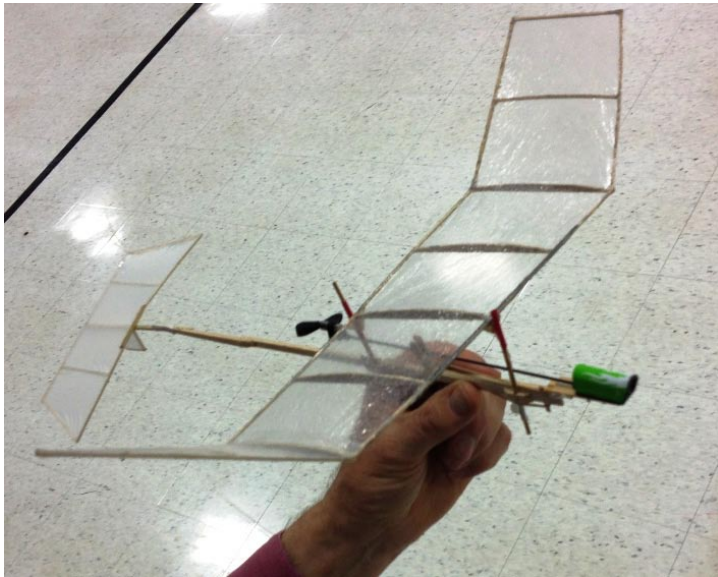
Some of Mick's models are RC using the Vapor type propulsion and controls. Below are pictures of a small biplane Al Tamburro flew successfully for him.





Larry Woodward is another member who is branching out into various different indoor model schemes, including rubber power and another very light model in which he uses the "paper airplane power unit"





Dave Harding also tried to use this propulsion system in a "wallpaper foam" F-22. So far no joy with this model as the commercial power unit incorporates a good deal of downthrust (well, actually upthrust but since this is a pusher it has the same affect).

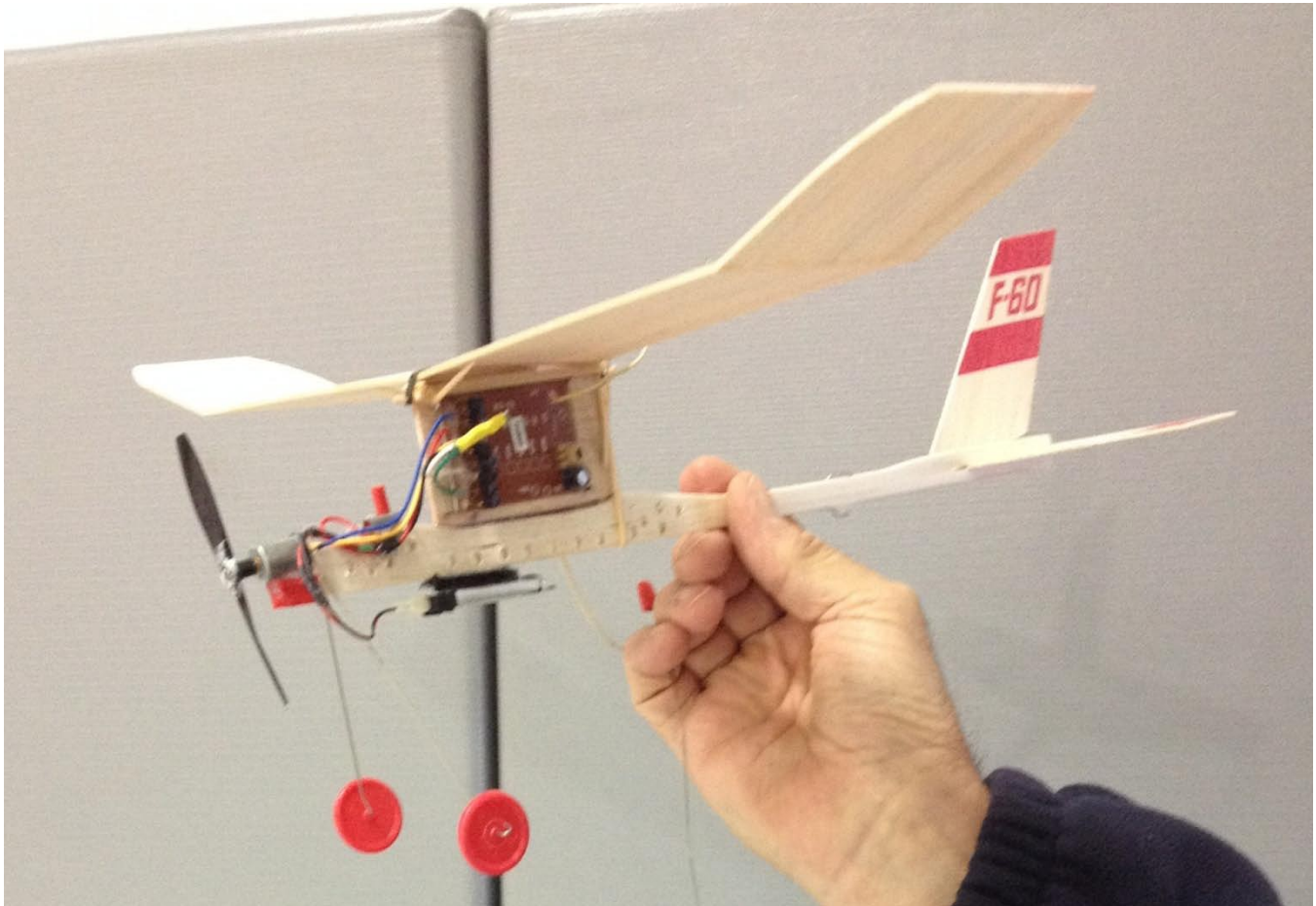
Joe Paradine is sorting out a rubber model he got from Mick

Al Tamburro has found another of his interesting bargains in the form of an IR controlled Tank. Al saw the control system from this extremely inexpensive toy as a possible airplane control system. So he stripped the tank and built a model with the controls just connected to the power system at this point. So far this 1 1/2 ounce model is underpowered so Al will find another motor and try again, although he may need to build a bigger model too as the basic electronics are quite heavy (but cheap, no.... inexpensive!)



Give it a try guys, there are so many ways to enjoy the indoor season and there are a bunch of time slots coming up, even if you don't make it after Tuesday breakfasts. Speaking of Tuesday breakfasts we are running out of room with 14 attendees on occasion.





## The AMA Expo, Ontario, California

Once again my "snowbird" trip to daughter's in South Pasadena begins with service on the SAM stand at what is now the AMA Expo trade show in Ontario, California. This event was started many years ago by the AMA and SAM Hall of Fame modeler and magazine contributor/owner Bill Northrop. Bill wrote a column for one of the magazines for some years but when he moved from Newark De, to California in the late 60s he started the Model Builder magazine. When Bill retired some years ago he sold the magazine and the show. The magazine did not survive but the show has.

However, what had been a died-in-the-wool modelers show and get together has now morphed into a Trade Show. There is not one stick of balsa anywhere, although you can buy glue. Of course much of the show reflects the changes in our hobby and the major suppliers are here together with countless RTF airplane vendors, many of them selling "drones". Indeed a chunk of the show floor space has been taken for a Drone Cage. Perhaps these changes are best illustrated by the major sponsor being a company that makes Drone Cases. In fact there are two such vendors each with an outsized stand.

In addition to the main hall there are two other smaller halls, one for a swap meet (mostly expensive junk) and the other dedicated to building and flying. Flying takes place in another cage where there is continuous activity with 3D and other light indoor type airplane flying, much of it by very capable

sponsored pilots; a good continuous show. But another show "improvement" was to eliminate the kids building activity led by a crew of outstanding aeromodelers from the Southern California Black Sheep Squadron. This year they were disinvited and replaced by a commercial "build and fly" activity which provided one simple foam model. Ok, kids still get to build but like so many things dumbed down. They didn't even get to cut out the parts!

Ok, so I was disappointed and sound like an old fart..... Anyway, as the show opened and the attendees flowed through the stalls a small number were attracted to the SAM stand. The usual exchange was "I used to build airplanes like those" and of course most of them were "senior citizens" and I just couldn't help noticing that two out of three sported grey facial hair. Once I noticed this I simply couldn't stop keeping score. The final quotient was between 50% and 60% with beard or mustache.

Of course this is an AMA show and AMA brings probably twenty staff members from Muncie to California, so we get the chance to speak with them. I took the opportunity to speak with AMA President Bob Mathews regarding the negotiations with the FAA regarding registration and restrictions. Later I sat in on a presentation by an FAA Director involved in the process who described the activities and decision process in which the FAA and interested parties are trying to craft regulations to allow continued safe operation of manned aircraft in the National Air Space.

My take home message is we aren't there yet but still could do major damage to our hobby.



Of course the major suppliers were there in force. Here are the Horizon Hobby and Hobby Partz stands.



Here is the Hobbyco stand in front of their Quad Cage flying spot.



Maxford had a very interesting fleet of antique scale models.



Of particular interest is the prototype of their Dornier Do X ARF due to be released this year with a target price of \$1000





The popular Southern California chain Hobby People had this interesting Ju-52 Trimotor on their stand



I was particularly impressed with this line of all metal EDF units.



NASA Dryden flight test center displayed a family of flying wings and gave a briefing about some kind of breakthrough in wing design which they plan to try on a model to survey the atmosphere of Mars!



You know the show and Drones have gone commercial when a significant stand is for a Los Angeles Camera store.

Samy's Camera has full page ads in the Los Angeles Times each week. Guess we need the FAA to save us from ourselves anyway.



The most expensive of these shown here was \$4400



Here is the flying hall.



Ok, our World is changing and commerce follows activities and interests so I have to say this show is changing to follow too.

Guess I am not changing to match so I didn't find much of interest. I did buy three bottles of CA glue (the stuff seems to dry out faster in Southern California. I also bought two sets of Dremel grinding bits from the tool vendor (it is expensive being bi-coastal)

This vendor said he is having a hard time because people just don't build anymore!

Dave



# Stall Speed is a Misnomer

By Bruce Cronkhite

This short article is prompted by a batch of traffic on the EFLIGHT mailing list on the Internet related to the difficulty of determining the correct landing speed for a model.

The reason this is difficult is that there is no such thing. There is, however, a correct approach Angle of Attack (AOA).

Many people worry about slowing their model down to a reasonable approach speed for fear that the model will stall. Consequently they fly too fast on approach, and run off into the mulch, or the local equivalent.

The U.S. Navy had the same problem when trying to get pilots to land on carriers. It is critical that the airplane approach the deck at the slowest possible speed consistent with some margin above stall to account for turbulence and other unavoidable occurrences while on final.

The Navy discovered that while their airplanes of different sizes and configurations had widely varying stall airspeeds, they all stalled at very nearly the same *Angle of Attack*. This is regardless of type, number of wings, or prop or jet. This angle of attack is very near 15 deg. Not pitch angle, but *angle of attack*.

So the Navy developed a system of measuring and referring to AOA by a system numbered in *Units*. In this system a "Unit" is approximately 2 deg, modified by some small quantities determined from the flight test data on the aircraft itself.

Now here's the magic. ALL Navy airplanes stall at 30 units AOA. Sure. There are some Navy pilots who can keep an airplane under control at higher than 30 units but they probably graduated from test pilot's school, and were working hard the whole time.

Well, what does that mean to us? Ready for this? Learn to see your model's angle of attack on final approach. You certainly can see 15 deg. so if you are less than that you *won't stall* if your model is aligned along your approach slope; you're going too fast at too low an angle of attack

That is the reason that I tell my students to keep the model fuselage level with the ground on final approach. This is a neat crutch that stabilizes the AOA at a reasonable number less than stall, but higher than supersonic, regardless of the angle of approach.

Try it.



**From the Silent Electric Flyers of San Diego Newsletter**

## Membership Renewal For 2016

*Membership renewal for 2016 is now required. You can renew by mail or at the club meeting in January.*

*Don't lose your club privileges!*

*Bring cash or check and your AMA card.*

*Dues are \$60.*

Please send a check to;

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