

The Flightline

Volume 32, Issue 1

Newsletter of the Propstoppers RC Club

AMA 1042

January 2002

Editorial – The Indoor Season

It felt like summer would never end as club members took advantage of the last of the warm weather flying at Sleighton Field right up to the December club meeting.

As a recent retiree, I felt like I was doing something illegal or playing hooky when the guys called and said they were going flying on a Tuesday. Bill and Monica Shellhase, Bob Crowell, Dick Bates and I had a wonderful time on December 4th when it was 65 degrees, calm and sunny. Dick Bates and I chased thermals with our electric gliders while Bill and Bob burned the last of the summer fuel. Thermals were good and I had to cut one short to get down and enjoy a companionable lunch at the shelter.

However, now that it has turned seasonably cold and windy the pace of building and flying has accelerated. The indoor season is upon us.

Propstopper's First Indoor Fun Fly December 7th.

The Propstoppers enjoyed the first of four scheduled indoor flying sessions at the Tincum Elementary School gymnasium. A bunch of members and some guests showed up although some of them were still assembling their candidate models that had just

been delivered by the Big Brown Truck. Still others who had planned to attend did not receive theirs as the indoor season has struck all over America and LiteSticks are in short supply.

Nevertheless, much aviation was conducted and we had to be eased out long after the planned closing time. It really helped to have an eager and interested janitor on duty. Please thank him Mike 'D'.

There were about an equal mix of free flight and RC models flown. Several Delta Darts and hand-launched gliders were flying all evening.



Tom Tredinnick and his wife were ready to step up and fly something during any open time on "the field" His Delta Dart flew well.

Guest, Dave Bevan, long time Boeing senior aerodynamicist and manager of the Wind Tunnel is a "lifer" aeromodeler and free flight specialist. When was the last time you saw a canard HLG?

Dave, Ed Goretzka and Mick Harris were members of the Golden Eagles Free Flight Club in the '60's. The Golden Eagles put members on the US International teams.

Continued on page 4

Agenda for January 4th Meeting

- Approval of December meeting minutes
- Finance report
- Membership report
- Field search and Sleighton status report
- Indoor flying plans
 - Directions and Time
 - Other club invitations
- February Auction Plans
- New business
- Lecture on Model Electrical Basics by Dr. Richard Bartkowski
- Show and tell

INSIDE THIS ISSUE

- 1 Editorial - The Indoor Season
- 1 December Meeting Agenda
- 2 President's Message
- 2 Calendar
- 3 Meeting Minutes
- 6 An Aeronautics Challenge

Calendar of Events

Club Meetings

NOTE Dates and Times

Tuesday 8th January 2002 Marple Newtown Library, 7:30 PM.

Tuesday 5th February 2002 7:00 PM
--Annual Club Auction
Marple Newtown Library

Flying Events

Propstoppers Indoor Flying
Tinicum School - 6:30 - 8:30 PM

Friday January 11, 2002
Friday February 1, 2002
Friday March 1, 2002

Directions;

- Left On 291
- Left at first light
- Right at 1st STOP (Seneca)
- 3-4 Blocks on left

Regular Club Flying

At Moore and Sleighton Fields

Daily	10 am til Dusk
Saturday	10 am til Dusk
Sunday	12 p.m. till Dusk

Propstoppers RC Club of Delaware County, Pennsylvania. Club Officers

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Propstopper's Web Site;
www.propstoppers.org

Check the web site for back issues of the newsletter, pictures of club events and the calendar of future events.

Pictures courtesy of Bob Kuhn and Dave Harding

The President's Message

Mike Black

Here we are approaching the end of the year with temperatures in the 50's and 60's. I have been out once or twice recently, but I've only seen a few of you at the field. There is no need to hang up that transmitter and plane for the winter, when winter has yet to arrive. Let's get out there and tear up some clouds.

I'm sure by now you have left that little hint to your bride or mother, whatever the case may be. Yes I can picture a catalog left open to the page with the plane circled and see page numbers listed by it for the for extras. I certainly hope that you find a large wrapped box under the old Christmas tree. I must have been especially good this year as my box was delivered early and the mini-IFO fuselage is now together.

After a year of apprehension and doubt concerning our flying circumstances it looks like we may be able to see some light at the end of the tunnel. It looks like we will have at least one more year at Sleighton Farm with the possibility of adding a new field. Please keep your fingers crossed, say a prayer, dust off the old four-leafed clover and do whatever it is you do to help make things happen. So, we will enter the New Year with hope for blue skies, little wind, and a new flat runway.

Come on out and join us for the indoor fun fly(s). You will see by the report that the first one was a hoot. We had several electric powered RC and fee flight models make the circuit with a huge degree of success. Dave's IFO seemed to be the hit of the evening.

Tom Tredinnick gets the delta dart award. Dick Bartkowski had the best free flight electric - a balsa model of his own design.

Please note: the date of the January, indoor fun fly is changed to Friday, January 11, 2002.

Hope to see you there and out at the field.

Mike



President Mike Black, Jerry Kalafut and Membership Chairman Ray Wopatek discuss the merits of the GWS J3 Stick at the first Propstoppers Indoor Meet of the season in the Tinicum Elementary School Gymnasium. A fine flying site that has room for more activity.

December 4th Meeting Minutes

Rusty Neithammer

Vice President Dick Seiwel called the meeting to order at 7:30 PM at the Marple Library. Due to the absence of the membership chairman, roll call was not taken.

The minutes of the November 8, 2001 meeting, as published in the December 2001 newsletter, were approved by the membership.

Treasurer **Al Gurewicz** gave the treasurer's report with income of \$872.50, expenses of \$73.86 and a new balance of \$3071.25 reported. Al noted that there are forthcoming expenses for the meeting room at the library (\$360.00) and for Moore Field (\$300.00).

There are still club hats available - \$6.00 each.

The next meeting is Tuesday, January 8, 2001. This resolves the previous uncertainty regarding the January meeting date.

Old Business

Field Search: Field Search chairman **Chris Catania** has had conversations with Rick Slossberg. The farmer from whom we sub-leased the Sleighton property. Rick has obtained a lease for the property for next year, and we can continue our sub-lease agreement with him. Chris will discuss relocating our runway along Valley Road as has been previously discussed at club meetings.

Chris has been discussing use of property on the Elwyn Institute main campus along Rt. 352, and the results so far are encouraging. Chris is also working on several other leads, but there is no definite news yet. If any members have any leads of their own that they would like Chris to follow up, please contact Chris and he will investigate.

Note that the January meeting date will be Tuesday, January 8th.

Indoor Fun Fly: The first one will occur this Friday, December 7, at the Tinicum School, 6:30 PM. Directions are on the website (www.propstoppers.org) and in the December newsletter. Note the URL for the club website – there were questions about this at the meeting.

Indoor flying; the schedule is for us to hold indoor flying sessions on the following Fridays – 6:30 to 8:30:

December 7
January 11
February 1
March 1

Directions to Tinicum Elementary School (repeated from last month's minutes): I-95 north to the Essington exit, go to the first light and turn left onto 291 (Industrial Highway), go to the next light and turn left on Jansen Avenue, go to the first stop sign and turn right on Seneca, go three blocks to the school on the left.

Auction: Scheduled for Tuesday, February 5. As in the past, the meeting will start at 7:00 PM, and will be abbreviated so the auction can start at 7:30 PM. **Al Tamburro** will again grace us with his auctioneering skills, and Al advises that the auction will be conducted in the same manner as in past years, that is:

Sale table – Item sale price marked on tag – 5% of sale price goes to club

Auction table – No reserve – 5% of sale price goes to club
Items placed on sale table and subsequently auctioned – 10% of sale price goes to club

Fuel: There are still 12 to 15 gallons left from the last bulk order. Contact Bud McClellan (welcome back, Bud!) to arrange pickup. Bud plans to bring the remainder to the next meeting.

Banquet: Based on a "show of hands", there is no interest on the part of the membership on chairing the banquet committee, so this issue will be dropped.

Send **classified ads** for sale items or items wanted, to newsletter editor **Dave Harding**, for free publication in the newsletter.

Technical presentation for club meetings: **Mike Black** and **Dick Bartkowski** have discussed the possibility of covering electrical fundamentals as applied to RC aircraft.

Members should advise Mike of topics they would like to see covered, or better yet, would like to present.

Newsletter editor Dave Harding asks members to provide him with reports of events they have attended. This can be done in any way that is convenient, including a simple phone call. Pictures are also most welcome.

New Business

President **Mike Black** received a letter from a man in Kenya asking for advice and materials that would be helpful in starting a youth aviation program. Once we collect some materials, the club will send a package to the gentleman.

January 13 – the MARS club (near Pittsburgh) will host a swap meet. There were some advertisements available for subscriptions to various RC magazines available.

Al Tamburro that he has good relationships with the WASPs RC club (South Jersey) and the Atlantic Flyers (Atlantic City area). The WASPs have extended an invitation to the Propstoppers to fly at their field.

Al Tamburro showed the cover of the latest issue of Model Airplane News (MAN), the subject of a contest to name the MAN issue on which this cover originally appeared, and then Al proceeded to produce the June 1955 issue with matching cover.

Ed Rigick / Brandywine Hobbies has lost his Horizon Hobbies distributorship due to some "hobby shop politics" and could use our support in the form of letters to horizon. **Chris Catania** has already sent such a letter, which members are free to use/modify as they see fit.

Propstoppers List serve: **Dave Harding** has set up a list serve account for the club and has subscribed all members who have provided an email address to the membership chairman. The list serve enables one, by sending just one email to one address, to post a message to all subscribers to the group. This will make it easier for members to broadcast relevant information to club members.

Break

The 50-50 winner was **Monica Shellhase**.

Show and Tell

Dick Bartkowski showed a selection of planes he intends to bring to the Indoor Fun Fly, including two Delta Darts and the Meat Plate Flyer.



Ed Goretska showed his new Cermark/Hangar 9 "New Timer". This is an old-timer style ARF plane that use very modern construction. Various degrees of "ARFness" are available, and Ed got his complete with a 280 motor and servos installed. Flight preparation consists mostly of mounting the tail surfaces, and installing the remaining radio gear.



Al Tamburro showed his foam glider converted to RC. Al started with a \$5.95 foam glider he found in his garage. The wing was modified to reduce the sweep-back, convert to polyhedral, reinforce with packing tape, and was mounted on a pylon on top of the fuselage. The fuselage area into which the wing formerly lugged in was used for mounting radio gear and the battery. 4 inches was removed from the nose and a speed 400 motor with a 12-inch folder installed. 8 NiCads supply the power. The result looks surprisingly like Ed Goretska's "New Timer". Total time to assemble was about 5 half-hour building sessions. Al suggested that slightly more wing area would be helpful and could be added by attaching some balsa trailing edge stock.



Chuck Kulzinski recently bought a new version SuperNova charger (available from Dymond RC and FMA) and advises that there is a software glitch that renders one of the operating modes, the auto discharge/recharge mode, unusable. The manufacturer is aware of this, claimed Chuck was the first to report it, and didn't advise Chuck at the time he called them of any plans to correct it.

Vice President Dick Seiwel adjourned the meeting at 8:35 PM.

Rusty Neithammer

Editorial, The Indoor Season continued from page 1.

Dick Bartkowski and Dave Harding had new electric powered indoor free flight models to fly for the first time. Dick's is a model of a model. The Phantom Flash, powered by a small geared motor and two 50-mah NiCad cells. Dave's was a 16-inch span foam Corsair powered by the same motor and cells without gearing. Both models proved marginal despite predictions by Dr. Bartkowski's analysis that they would fly. (See the accompanying article).



Dave's Corsair and Dick's Phantom Flash free flights.

Mike Black and Jerry Kalafut had received their GWS J3 LiteStick variants but not in time to complete them. Dick Bartkowski and Dave Harding had their well-used LiteSticks and Mick Harris had one of his museum quality lightweight models ready to go. Mick's model succumbed to an early contact with the wall which resulted in failure of the high tech wing attach graphite rod. It was unrepairable so Mick was down. Dick was the next to add the challenge of staying within a small space to that of basic control with his LiteStick. Unfortunately, he too was to suffer early structural failure. Al Tamburro's Demoiselle proved to be a little too heavy for the confined space.



Dick Bartkowski contemplates flying his LiteStick at Tinicum

I flew my Litestick a number of times. Most flights resulted in contact with the walls or furniture and a failure of some kind. However, the Litestick is easy to fix and a shot of CA and accelerator usually does the trick.. This model has a replacement motor with a higher gear ratio and a bigger 12 x 8 prop. It seems particularly well suited to slow indoor flying.

The model of the meet however was my IFO. Unsure about flying a new model with this kind of performance I did the usual "Al can you fly this for me?" "Rusty, you too". And so it was all evening until I was assured that I could handle it! Yeah right!

Oh well, the IFO is as easy to fix as the Litestick. Sudden arrivals result in;

1. The battery unzipping from the Velcro
2. The motor breaking loose
3. The servos breaking loose.

Pass the CA and kicker.

The landing gear is also finicky, it needs constant adjustment and in the end we were hand launching. It is obvious that the IFO has the potential for incredible aerobatics indoors.



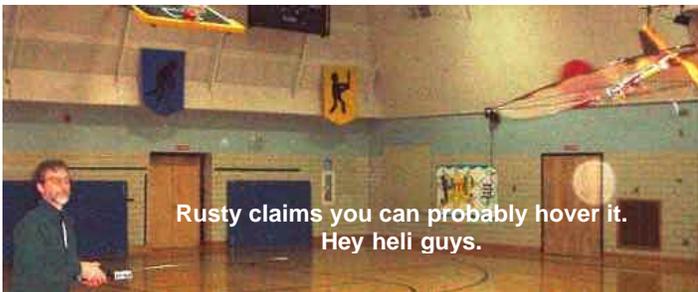
Rusty and AI fly IFO



AI with IFO close pass



Rob Romash with indoor rubber model



Rusty claims you can probably hover it. Hey heli guys.



Bill Groft's Mini IFO and Fast Freddie

All in all the first Propstopper indoor meet of 2001 / 2002 was a marked success with a modest turnout. But wait, no sooner than we finished this one than we were invited to the Silent Knights Soaring Society indoor meet at the Jewish Community Center in Wilmington on December 18th eleven days later. Wow, a chance to fix what was wrong and do some more, see the article "an aeronautical challenge" in this issue.

SKSS Indoor Meet December 18th - Wilmington.

The SKSS crew is familiar to us from their participation in the last two Propstopper Electric Fun Fly's. Bill Groft and Dave DeGroute are skilled technologists, builders and flyers so it was no surprise that they had good stuff at their meet. So did several of their other members. They had also invited the Silent Flyers of South Jersey sailplane and electric club and their members included a noteworthy indoor flyer, Rob Romash. Rob had the widest variety of indoor models all of which flew superbly. His fleet included rubber powered indoor models with one that was about four inches wings span that weighed 1/2 gram! He also had a small lightweight hand launched glider that he threw right to ceiling height whereupon it rolled out to a perfect glide without losing any altitude.

There was a whole fleet of IFO's. In addition to mine, there was one other Mark III and about four or five Mini IFO's. Even though several of the pilots were accomplished aerobatic fliers they all had difficulty flying within the confines of a gymnasium.



With practice the Litestick flew well and often.

In addition to the RC flying, Dick Bartkowski and I continued our electric powered free flight experiments with a little more success but still not perfect. We'll keep at till we get it right. The indoor season is off to an excellent start. It is different than outdoor flying and quite challenging but just as satisfying, and anyway, what else are you going to do? Join us next time on January 11th.

Dave Harding

An Aeronautics Challenge

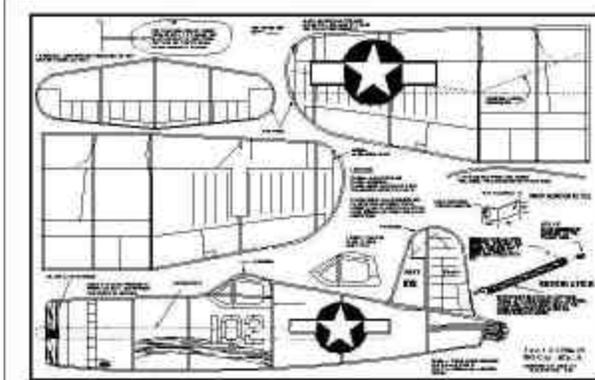
You know how it starts; "Dave what are you building for the indoor?" "Well I'm dusting off the Litestick and finally building my IFO. Should be enough for the first time out". "Here Dave, why don't you think about making a small free flight electric powered model? Here are the parts you need". So began an aeronautics challenge.



There was a molded foam-sheet 17-inch wing with a flat center section and dihedral tip sections, a minute N20 motor and 3 inch prop. "Should be able to build a model light enough to fly with two 50 mah NiCad cells". "There are a variety of Nocal profile scale designs on the web, why not make a Hurricane?"

"Oh come on Dick, it is hard enough to finish the IFO and Litestick as well as get all the stuff ready to load and fly."

By Friday morning (the day of the meet) I was well enough along to think about it. First of all that wing is ideal for a Corsair. One cut in the middle, a little sanding and glue it back together. So I began a search on the web for what I needed. First the Nocal plan.



Scale it up to 16 inches span, easy. Print it out and cut and glue the wing. Hey, I have started to build it! Quick cut out the stab and fuselage from thin sheet foam. Need to put some doublers in the usual forward fuselage area, how about that, I can bury the motor, add some wire and velcro. Wow, its finished. Wonder if it will fly.

Now I 'fessed up to Dick that I had done it. "What does it weigh" he said. "24 grams" says I. "Should fly" says he.

So at the first Propstoppers indoor I had a Corsair free flight model. It didn't quite fly; it was stable and did impressive long powered turns to the ground. What now Doc?

This really bothered Dick as he prides himself on doing the analysis ahead of time so the event is less of a crapshoot. This one he said would fly!

Oh well, we have a month before we try again.

Not good enough for the Doc. A couple of days later he called to say that he was wrong with the prop and he had another for me to try. Well it's a calm day why don't we try it outdoors this

afternoon at the ball field by the school?

Fantastic, after a few trimming attempts, a little too much charge and away it went circling slowly up and up until it was flying over the tall trees. Oh-oh, I am allergic to trees, but it clipped the top branch and fell through to the ground.

There were two more giggling little kids on the field that day. The lady with the dog was amused to find that their combined age was somewhere over a hundred!

Its still magic folks, a new plane that flies unexpectedly well, no matter how small or uncomplicated. We were high for the rest of the day!

I thought about that feeling, how we all experience it occasionally with a new plane so I decided to write a piece on it. You know, the description of the "kit of parts" etc. but I had used up the parts and didn't have a picture so I asked Dick if he had another wing, motor and prop. Yes, actually he had bought a pack of six wings for \$6 and 10 motors for \$15 so I could have some more. I picked them up the next day.

Meanwhile I got the e-mail from Rusty inviting us to the Delaware club indoor meet on the 18th; four days away!

First I wanted to finish the Corsair so that its looks matched the flight performance. Magic marker finish was a disaster so I bought some foam safe enamel and printed some markings from the computer. Looks great but now it weighs 27g.



But you know how it goes with this hobby, you dream of airplanes you would like to build and challenges you would like to take. The gray matter processed this and using the "Racer's Credo" that I explained last month I thought, If one wing and one motor is good (very good) then two motors with two wings is better.

In no time the mind was sorting the alternatives. Actually the scale effect obeys the "square - cube law". For now let's just say that when airplanes get twice as big they get more than twice as heavy and require a lot more than twice the power.

In the case in point, I intended to join two wings so the span would be double but the chord would only increase slightly however the weight would be more than double so the wing loading and therefore the flight speed would increase somewhat. Double the area and higher flight speed certainly means more than twice the power so I began to think about four motor planes.

You all know I have been developing an 80-inch B-24 but that has a very high aspect ratio wing and it did not fit the form-factor of the foam wings and in any case high aspect ratio wings would be heavier. The B-17 has a low aspect ratio wing (which is one of the reasons it had less performance than the B-24) but it has a circular fuselage and by now I was not thinking profile.

How about a Lancaster? Quick search on the web found a three-view and a vast array of photos. Wow, what a simple slab sided fuselage. Piece of cake. Hmmm. Could I?

Sure, I have four days!

What I'll do is make it light as possible so I can use two motors if they are enough but provisions for four if needed.



RAF Avro Lancaster Bomber

I joined the foam wings and added some sheet foam to complete the wing planform. The fuselage was made in the conventional way with a combination of 1/16 in balsa sheet and foam for the sides with thick foam top and bottom hollowed to shape with a shaped tool in a soldering iron. Empenage is from balsa with foam control surfaces.

The nacelles are carved from foam and split horizontally at the thrust line to aid motor installation and wiring. I planned to install the motors and wiring into the inner nacelles but leave the outer nacelles empty.



By Monday the 17th it was beginning to take shape and I began to wonder, "Would it fly"? By now I was up to 60 grams. What I needed was a test flying session but the weather had turned sour. As luck would have it my grandson was attending his seminar class with the teacher who teaches aeronautics in one of her units. She also runs the Science Olympics at the grade school and our family has helped her on many occasions (in fact I have had four grandsons in her class, two currently). So I made a written proposal to fly in their gym after school and that is what I did. I confirmed the flight performance of the Corsair then made several attempts with the Lancaster. The CG was off initially but after a few tries I got it right and tried a somewhat powered flight. It made one large gentle turning descent to a satisfactory landing. "Huston, we have a program". I thought that with a fully charged battery pack (using three cells this time) I would have the power to fly on two motors.

But now the model cried out to be finished. Of course, I will need spinners or it wouldn't look right, and canopies too, five of them! What to do? Still need to keep it light.

I made the spinners by turning light celluloid sheet backing plates and then added foam spinners, which I formed by sanding. The canopies were made by carving wood patterns then stretching / shrinking blow molded packaging over the patterns with a heat gun and manual labor. You really don't need a vacuum machine.



All of this was immeasurably aided by constant trips to the computer and searches on the web for photos of the part I was making.

It still needs upper surface paint and cockpit detail.

Was it worth it? You be the judge, but look at that grin!



Did it fly? Not quite, at 77 grams with the detail added it made another long gently turning descent then broke a prop and I didn't have a spare with me. But the wizard, Doc, tells me that I still have the wrong props and it should fly. If not I can add the other two motors. Although it may not be suitable for indoors at that weight I could also add an Rx, and ESC and two servos for another 30grams then I'll have a Jim Dandy four motor outdoor flyer!

Aeronautics Challenge satisfied? Not quite but it sure was fun to try, and just wait till next time.

Dave Harding



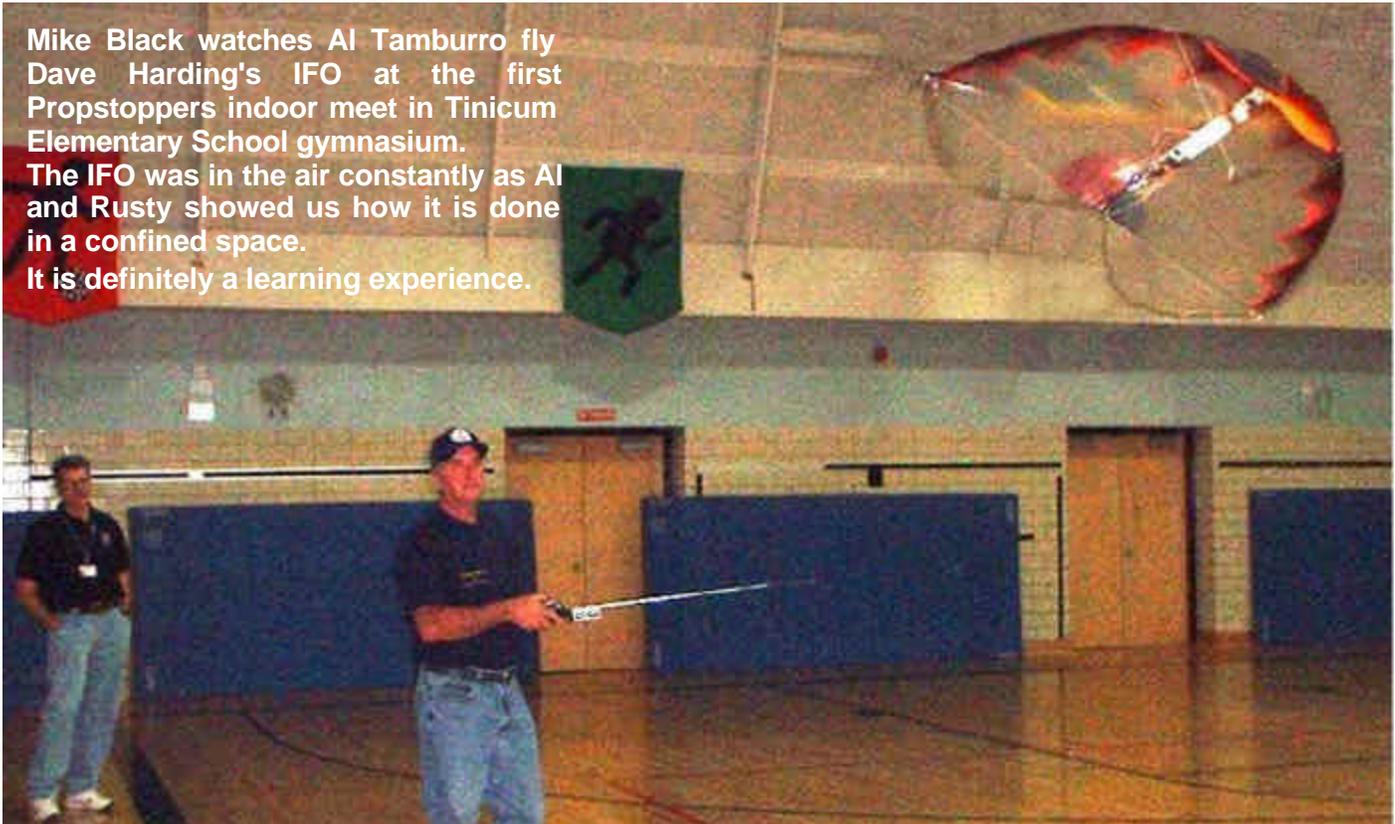
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Propstoppers R.C. M.A.C

Mike Black watches Al Tamburro fly Dave Harding's IFO at the first Propstoppers indoor meet in Tinicum Elementary School gymnasium.

The IFO was in the air constantly as Al and Rusty showed us how it is done in a confined space.

It is definitely a learning experience.



Membership Renewal For 2002- Discount Last Chance

Membership renewal for 2002 is now due. You can renew by mail or at the club meetings in November and December. Dues \$60 plus field assessment of \$20 = \$80. Discount if paid by January meeting \$5

1004 Green La.
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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

Last chance to send a check to:

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