The Flightline

Volume 38, Issue 1 Newsletter of the Propstoppers RC Club AMA 1042 January 2008

Minutes of the Monthly Club Meeting

December 12th, 2007 at the Middletown library

The meeting was called to order at 7:34 p.m. by Vice President Dave Bevan

Roll-call by membership chair Ray Wopatek showed 14 members present

Minutes of the November meeting were accepted as published in the newsletter

The treasurer's report by Phil Ottinger was presented and accepted

Old Business:

Dave Bevan updated the members on the progress of the Widener model plane cargo team. They are building a model and have completed their interim progress report to submit to the college.

Agenda for January 9th Meeting
At The Middletown Library;
Doors open 7pm, Meeting 7:30pm.

1. Approval of December Meeting Minutes
2. Membership Report
3. Finance Report
4. Show and Tell

Oops, we forgot to post the notice that the club membership dues for 2008 are now past due. Please bring your 2008 AMA membership card and $60 to the next meeting, or send them to Ray Wopatek at the address on the last page.

INSIDE THIS ISSUE

New Business:

The indoor fun fly from December was canceled due to an unfortunate conflict. Mike Black managed to arrange an alternative date of Friday January 18th.

Dave Bevan read us a story about one of our members, Tom Tredinick, who was a rescue helicopter pilot in the Navy.

Jess Davis suggested that we have an electric seminar discussing new technologies such as lithium batteries and speed controllers. He and many others also wished a discussion of how to select these for a particular model.

Show and Tell:

Al Basualdo flew his tiny indoor twin rotor Wakira 5-6 helicopter around the meeting room. Many members commented on the fine control of such a small model.

He also showed his T Rex Nitro 600 helicopter powered by a 50 size glow engine. He noted that the glow powered model had a built in governor to maintain a constant engine rpm.

Calendar of Events

Club Meetings

Next Monthly Meeting Tuesday 9th January 2008 at the Middletown Library Doors open at 7:00 pm Meeting at 7:30

Tuesday Breakfast Meeting
The Country Deli, Rt. 352 Glenn Mills
9 till 10 am. Just show up.

Indoor Flying

At the Tinicum School Gym 6:30 till 9 pm
Friday January 4, 2008
Friday January 18th 2008
Friday February 1, 2008
Friday March 7, 2008

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 10 am Sleighton Field
Thursday evenings 5pm on CA 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

John Tripier showed a Hurley gasoline spark engine from the '40's. He said it never achieved much popularity mainly because it never ran really well.

Adjournment took place at 8:45 p.m.

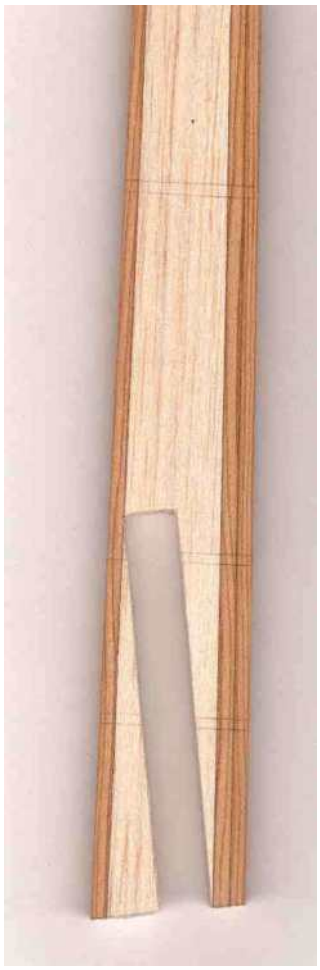
Richard Bartkowski, Secretary

SAM's Workbench

By "Ol Charlie"

Sam member, Alfredo Herbon from Olavarria, Argentina recently offered the following method via our SAMTalk Internet email group discussion list. Alfredo splits his wings for ease of storage and transportation which proves to be very beneficial for those antique era models that we all love to build and fly, yet can't find the room to store or haul them in our compact vehicles.

Alfredo's photos provide the building procedure along with his detailed notes to walk you through the process. Alfredo attaches spruce capstrips to the top and bottom of his spars to strengthen and avoid broken wings when emergency maneuvers may be required. Notice that the upper capstrip is thicker than the lower strip. Once the tubes are imbedded/epoxied within the balsa spar a plywood retainer/reinforcement plate is attached to the outer surfaces over the wing joiner tube area. Note the plywood plates are tapered on the outer ends of the plates. The following is Alfredo Herbon's detailed split-wing, spar & joiners, building procedure:



Split Wings – Wing Joiners

By Alfredo Herbon

The model reviewed in this article was my scaled up version of the original 1941 50" w/s "So Long". It now provides a 79" w/s, 934 sq. in. area powered by a .40 glow engine.

My approach is to make a joint at the dihedral break by beefing up the spars then inserting a receptor sockets in each part and fit a joining “dowel”. Because this process adds elements that can cause stress raisers and weaken the basic parts I incorporate additional strengthening.

The balsa main spar is 3/8" hard balsa sandwiched between Spruce caps.

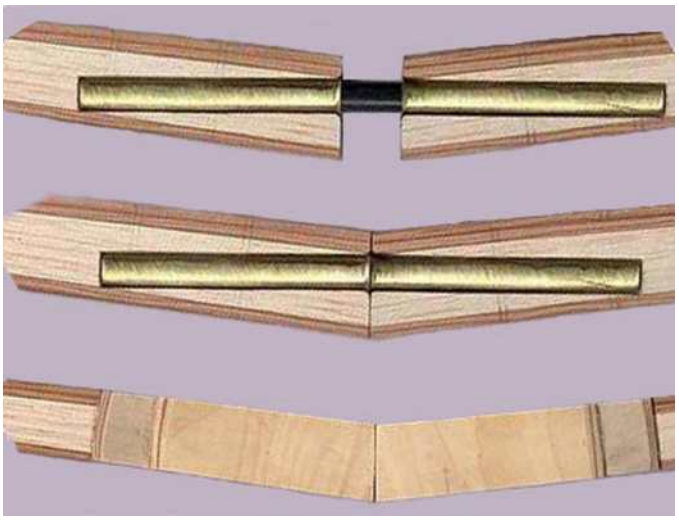
The spruce cap strips on the upper portion of the main spar has a double 1/8" X 3/8" X 12" strips, which after a length of 9" doubled it tapers to just the single 1/8" X 3/8" strip for another 3". The lower main spar spruce cap strip is a single 1/8" X 3/8" X 12". The secondary spar cap strip is a single layer of 1/8" X 1/4" X 12" spruce on the top and bottom of a 1/4" hard balsa core.

The strips are glued to the balsa spar using white carpenters glue. The cap strips on both the main and secondary spars run from the center of the wing to the dihedral break. I use this strong construction method because I don't want to alter the original wing structure and don't want the wing to fail in flying.

I sandwiched two layers of 1/16" ply on the main spar outer surfaces over the tubing section, as shown in the photo, running the same length as the brass tubes. Only one layer of 1/16" ply was used on the secondary spar

Each main spar socket is K&S 3/8" internal diameter brass tubing 3.071" long. The secondary 1/4" sq. balsa spar socket is K&S 5/32" internal diameter brass tubing 1.38" long.

I use carbon rod for the wing joiners. I think I could have used 1/4" rod but preferred 3/8" to be on the safe side. For the main spar I used #R-24, 3/8" solid carbon rod. The secondary spar used #R-10A, 5/32" solid carbon rod, both supplied by:
Aerospace Composite Products,: Info@acp-composites.com
Website: http://www.acp-composites.com/



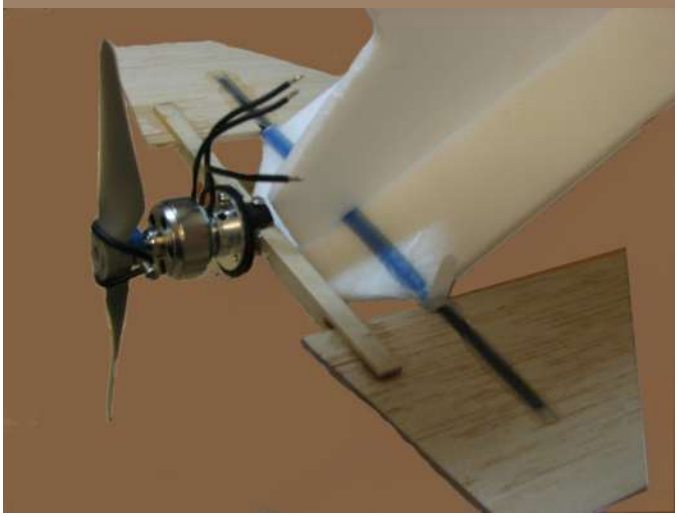
The additional device I use to join my wings prior to flying is standard 3/4" vinyl electrician's tape. *(Vinyl Electrical tape is available at Home Depot in several colors to make a fairly close match with covering color).* An important detail when you are adhering the tape to both center panels, is do not stretch the tape. If you stretch it before adhering, after some time the tape tends to slip and will loosen. This method works great even on big models. Obviously you need a clean (degreased) center wing area. After the flying session you need to take off the tape with a little care by pulling it backward over itself to avoid peeling the covering.

Another important detail is to attach the wing by using a cross pattern for the rubber bands.

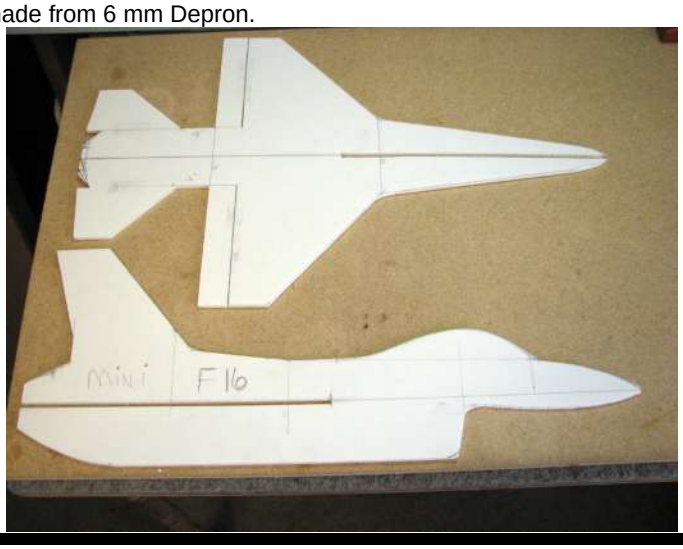
Here are Alfredo's granddaughters with the completed two-piece wing installed on his oversized So Long.

Innovation in Southern California

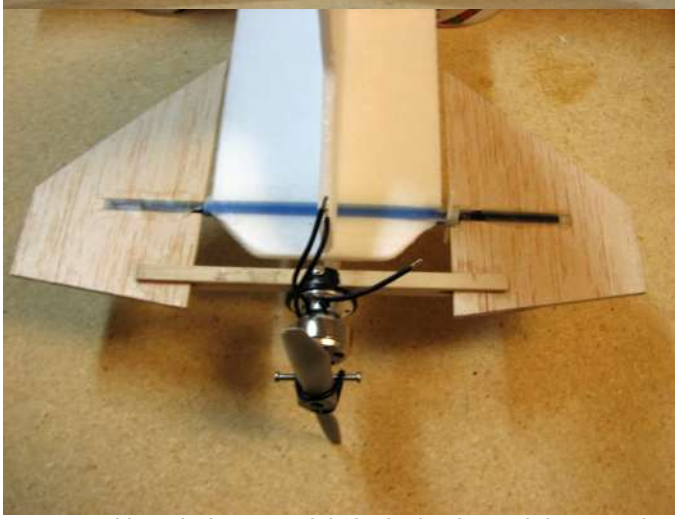
During our usual flying on the Rose Bowl lawn we are constantly discovering new modeling initiatives, and so it was the other week. It usually begins with somebody driving up, parking and coming over with "what channel you on"? This time it was a woman flyer, Cherrie, who is a forty year RC flyer and a technician with the Pasadena City. She had brought four models, three of them unusual as they were scratch built, own design flat foam "jets". The most innovative being an F-16 pusher with thrust vectoring. I have never seen anything like it, and it was executed so simply.



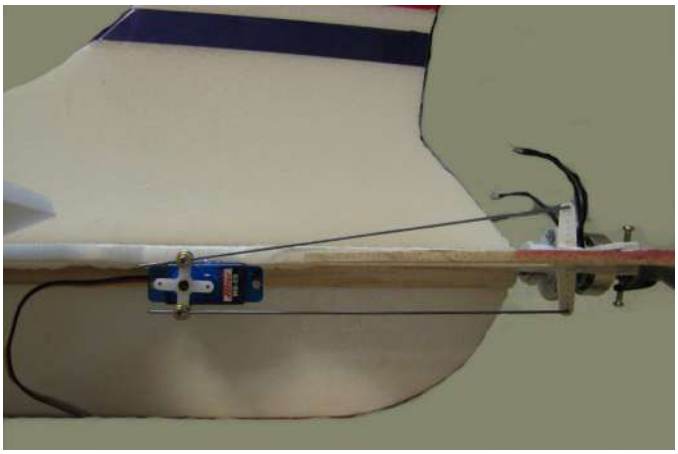
This model hand launched easily, flew like a jet and turned amazingly small loops. This model, like Chellie's other jets, was made from 6 mm Depron.



She has also made them from the foam poster board from Michael's arts and crafts store. In that case she soaks the fresh boards to soften and then remove the poster board covers from each side. A few graphite rods or tubes stiffen the critical parts. Assembly uses mostly five and thirty minute epoxy glue.



Although these models look simple, and they are, but they are the result of much development. Take for instance the control of the F-16 horizontal tail. An aeronautical engineer would look at this setup and shake their heads at the mass of the motor hanging off way behind the pivot. Don't you know you are supposed to mass balance the pivoted surfaces ahead of the pivot? Well actually that is only one way to solve a potential flutter problem, Chellie found it necessary to make a fix but she chose to make the control loop exceptionally stiff by using rigid push-pull control rods on both sides of the servo and surface.



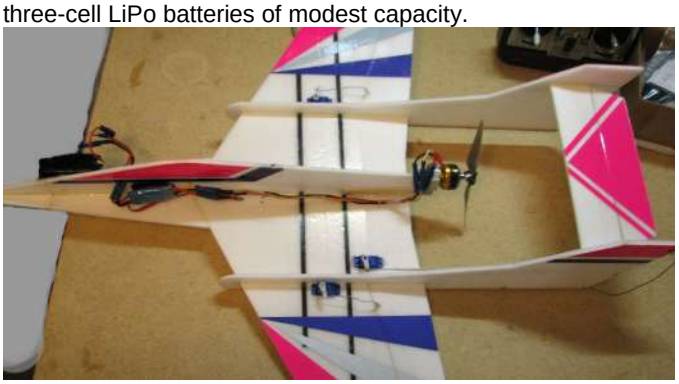
She obviously understood the finer points of making such a system work as she made the control horns parallel and equi-distant from the pivot. This control geometry is perfect over the whole range of motion, and obviously quite rigid; also it works!

The second model she flew was also an impressive screamer; a pusher twin boomed foam jet.

Again this model hand launched easily and flew most impressively. Construction is similar to the F-16 but the propulsion installation is a little simpler.

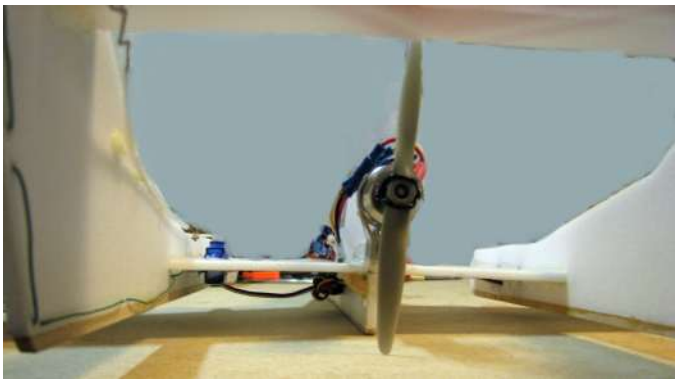
The development of this model preceded the F-16 and one of the elements that has seen considerable development is the

motor/gearbox and prop. Chellie seems to have settled on three-cell LiPo batteries of modest capacity.

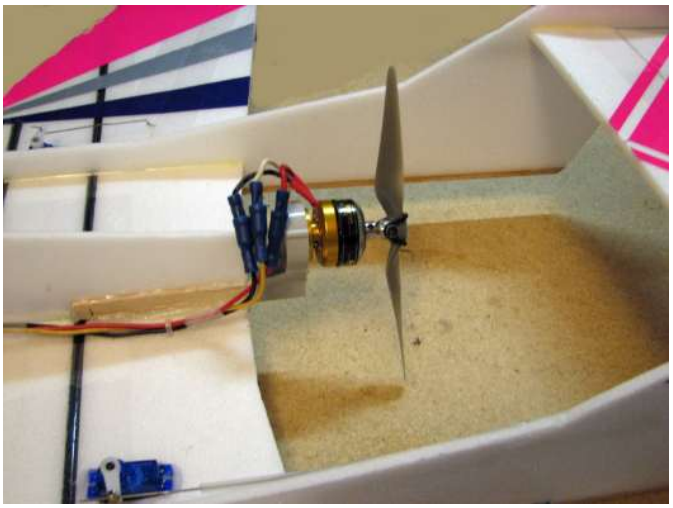


Here again the sophistication is not obvious, but the simple installation of the servos provide short stiff connections to the alilerons and the two graphite rods provide both bending and torsional stiffness to the simple wing.

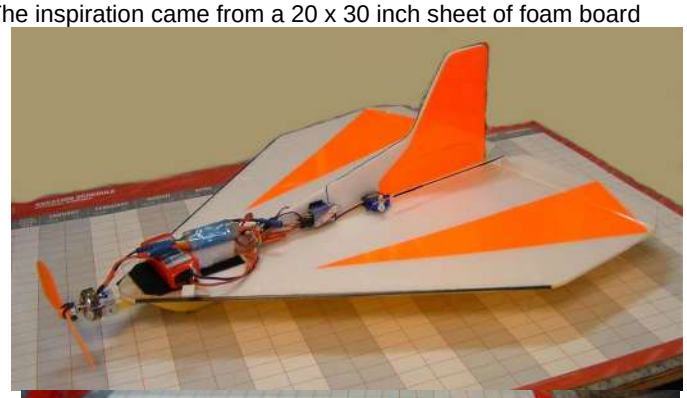
The booms look vulnerable but a look at the underside shows the longitudinal spruce members attached to both booms and the lower fuselage edge. These not only provide additional strength to the booms and fuselage, but also a scuff surface for the belly landings. Note the thrust line and prop diameter provide almost ground clearance for inadvertent power-on landings or landings with the prop vertical.

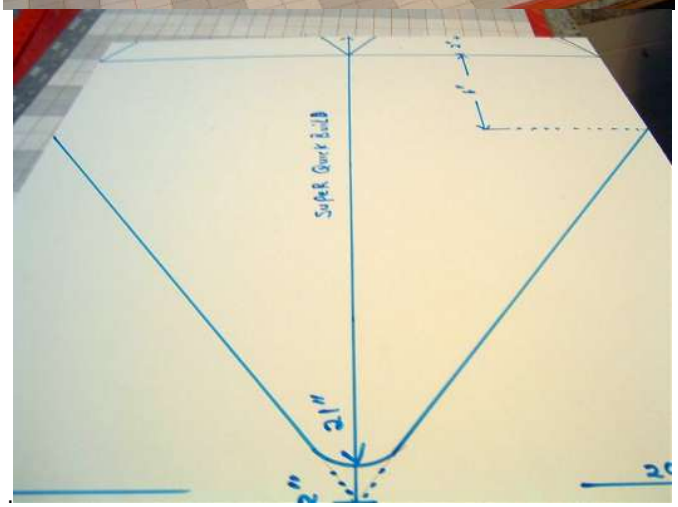


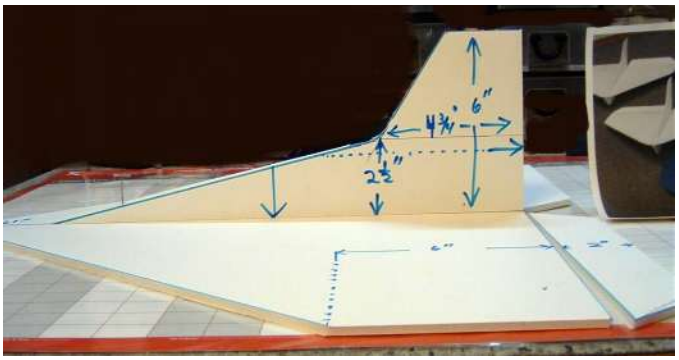
The motor installation on this version uses an outrunner motor mounted on a GWS 10 mm gearbox stick mount. Note the 10 mm stick bonded to the foam fuselage.

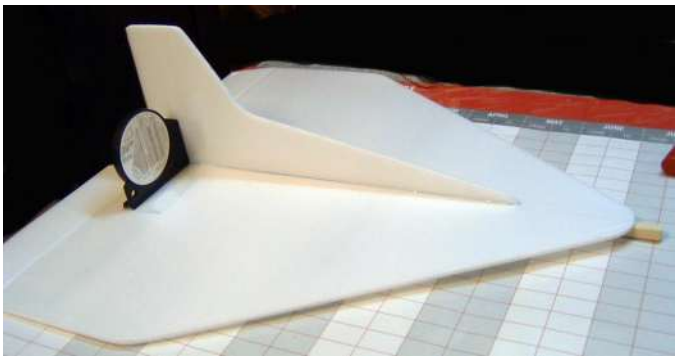


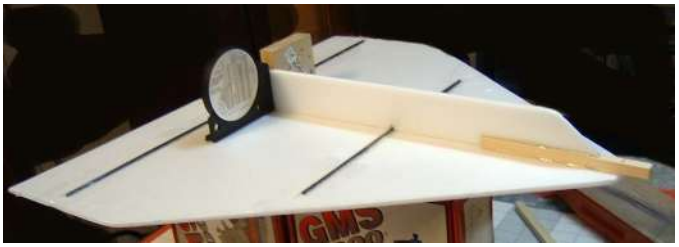
Chellie's other foam jet was a simple delta with a tractor motor. The inspiration came from a 20 x 30 inch sheet of foam board











Here is a picture with all the electronics either installed or just placed for CG measurement and adjustment.

Chellie has amply documented these developments, including plans, in Wattflyer. Here are some of the links.

http://www.wattflyer.com/forums/showthread.php?p=265124#post265124
http://www.wattflyer.com/forums/showthread.php?t=25054
http://www.wattflyer.com/forums/showthread.php?t=16298
http://www.wattflyer.com/forums/showthread.php?t=16392

Dave Harding

SoCal Musings

Well #7 grandchild has arrived and it is a girl. Now let's see what happens to the flying and eating schedule. Meanwhile, here is the closet workshop I have been developing for my SoCal visits. The work surface is 48 x 24 but there is a huge table on the courtyard and most of the year it is the preferred place to build. However, the advantage of the closet workshop is that I can work late into the night without disturbing "anyone".

So what do you do with your buddies on a rare cold and rainy day in SoCal? Why make batteries for the 2008 season of course. Here your editor and Dale Tower wield the hammer head irons while tinning 200 Sanyo NiCad cells at Mike Myers house in Glendale.

Dave

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Propstoppers R.C. M.A.C

SoCal Chellie's Foam Jets

Flying Event Calendar

Indoor Flying this Friday

Tinicum School Gymnasium
6:30 till 9 pm
Friday January 4, 2008

Special additional date;
Friday January 18th, 2008

Friday February 1, 2008
Friday March 7, 2008

AMA membership required to fly.
Guest flyers and spectators welcome.

Membership Renewal For 2008

Membership renewal for 2008 is now available. You can renew by mail or at the club meeting in January

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