

**PRESIDENT TO PRESIDENT**

# Providing Effective Leadership

Mark Smith, AMA Executive Vice President

Hi folks! The recent terrorist activity involving model aircraft underscores one of our primary responsibilities—that of providing effective leadership.

On September 28, at 3:43 p.m., I received word about the arrests of alleged terrorist Rezwan Ferdaus. The following 24 hours were critical in providing the

correct message to our membership and the community at large.





Dave Mathewson, Chris Brooks, and Rich Hanson worked tirelessly to address the numerous calls from our membership and the media. But they did not stop there. Chris even developed a media package for clubs to use when their local

Contact Mark at [ama.mtsmith@gmail.com](mailto:ama.mtsmith@gmail.com)

media contacted them.

We have an on-going partnership with the FBI and Homeland Security and continue to enhance this relationship. In several interviews, I told the media that the AMA is vigilant in identifying any suspect terrorist activity because we have 143,000 set of eyes and ears focused on any unseemly activity. Please continue to be outstanding custodians of this great hobby and review this flier with your club.

Keep up the great work! →

  <p><b>Communities Against Terrorism</b> Potential Indicators of Terrorist Activities Related to Hobby Shops</p>	
<b>What Should I Consider Suspicious?</b>	<b>What Should I Do?</b>
<ul style="list-style-type: none"> <li>• Demonstrating unusual interest in remote-controlled aircraft.</li> <li>• Demonstrating interest that does not seem genuine.</li> <li>• Inquiring about remote controls and model aircraft payload capacity and maximum range.</li> <li>• Inquiring about learning to fly expensive giant-scale aircraft without first learning to fly small-scale aircraft.</li> <li>• Possessing little knowledge of activity for which the purchase is intended.</li> <li>• Exhibiting unusual interest or specific interest in rocket motors or igniters.</li> <li>• Demonstrating no interest or enthusiasm for the hobby or sport.</li> <li>• Shoplifting or purchasing             <ul style="list-style-type: none"> <li>▪ Large quantity of model aircraft fuel.</li> <li>▪ Several large aircraft, engines, or transmitters.</li> <li>▪ Model rocket motor igniters without adequate knowledge.</li> <li>▪ Large quantity of paintball equipment and supplies with very little information about local paintball activities.</li> </ul> </li> <li>• Using cash for large transactions or a credit card in someone else's name.</li> </ul> <p><i>It is important to remember that just because someone's speech, actions, beliefs, appearance, or way of life is different, it does not mean that he or she is suspicious.</i></p> <p style="text-align: center;"><b>Call the Atlanta Office of the Federal Bureau of Investigation Terrorism Tip Line 1-877-4ATL-FBI 1-877-428-5324</b></p>	<p><b>Be part of the solution.</b></p> <ul style="list-style-type: none"> <li>✓ Require valid ID from all new customers.</li> <li>✓ Keep records of purchases.</li> <li>✓ Talk to customers, ask questions, and listen to and observe their responses.</li> <li>✓ Watch for people and actions that are out of place.</li> <li>✓ Make note of suspicious statements, people, and/or vehicles.</li> <li>✓ <b>If something seems wrong, notify law enforcement authorities.</b></li> </ul> <p><b>Do not jeopardize your safety or the safety of others.</b></p> <p>Preventing terrorism is a community effort. By learning what to look for, <b>you</b> can make a positive contribution in the fight against terrorism. The <b>partnership between the community and law enforcement</b> is essential to the success of anti-terrorism efforts.</p> <p>Some of the activities, taken individually, could be innocent and must be examined by law enforcement professionals in a larger context to determine whether there is a basis to investigate. The activities outlined on this handout are by no means all-inclusive but have been compiled from a review of terrorist events over several years.</p> <p style="text-align: center;">   </p>
<p>This project was supported by Grant Number 2007-MU-018X-K002, awarded by the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice. Each indicator listed above is by itself, lawful conduct or behavior and may also constitute the exercise of rights guaranteed by the U.S. Constitution. In addition, there may be a wholly innocent explanation for conduct or behavior that appears suspicious in nature. If or this reason, no single indicator should be the sole basis for law enforcement action. The totality of behavioral indicators and other relevant circumstances should be evaluated when considering any law enforcement response or action.</p>	

## November 2011 CONTENTS

**PRESIDENT TO PRESIDENT** ..... pg 1

**CLUB CORNER** ..... pg 2

**ON THE SAFE SIDE** ..... pg 2

**LEADER TO LEADER** ..... pg 3

**EDITOR'S PICKS**

Turbine Waiver Designation on AMA  
Membership Cards ..... pg 4  
John Worth: 1924-2011 ..... pg 4  
Installing a Bubble Canopy ..... pg 4  
Scale Plans Building for the  
Novice: Part 3 ..... pg 5  
75<sup>th</sup> Anniversary Club Newsletter  
Contest ..... pg 7  
Tips & Tricks ..... pg 7

## Be Proactive

Contact Jim at [sjwallen@tde.com](mailto:sjwallen@tde.com)

Jim Wallen, *Insider Club Column Editor*

Are you in danger of losing your flying site? Perhaps the answer is “yes” and you don’t even know it. All too often clubs get into a situation where their flying site is in jeopardy and the opportunity to fix the problem has already passed!

Noise abatement is a subject most clubs pay little or no attention to, and can lead to huge problems. Your club should be aware of the potential for complaints about noise that can shut down your field. Choose someone in your club to open this issue to your membership so they are at least aware of the potential. The club safety officer is a good candidate because each club is required to have one.

Get a simple sound meter and check some models at random. Perhaps you may want to adopt IMAC noise rules. This may kick off the awareness button for some members. Educate your membership on sound characteristics. Investigate the benefits of using a three-blade propeller. Take a look at your overflight tendencies and your flying times so you do not offend the neighbors. **The key is to be proactive.**

Has your club developed a good working relationship with local governmental agencies? If for some reason you do get into an issue, you are better off having the local elected officials be sympathetic to your cause. Have you walked the extra mile to get involved with community programs that put you in a good light? March in the local parades. Put on a mall show. Visit a hospital, school, or senior citizen facility. You want to present the image of being “one of the good guys.” **The key is to be proactive.**

Your neighbors surrounding your flying site are important to you. Visit a homeowner’s association to introduce yourself and project a positive image. Invite the neighbors to come over to the site and enjoy a hot dog and a buddy-box experience. Encourage the kids to participate. **The key is to be proactive.**

Keep in mind that your flying field is the glue that keeps your club members together. It is perhaps your most valuable asset. Do whatever you can to protect it. **The key is to be proactive.** →

## ON THE SAFE SIDE

### Propeller Strikes and Arming Switches

Contact Jim at [jtiller@hotmail.com](mailto:jtiller@hotmail.com)

Jim Tiller, *Insider Safety Column Editor*

#### Never, Never Stick Your Finger in the Propeller

Before I took the job as AMA *Insider* safety columnist, I remember lamenting to my beautiful wife that it might be hard to make the column interesting. I remember saying, “Just how many times can you tell someone not to put his finger in the propeller?” On a warm Friday afternoon in late August, I found that the answer. After 30 years of flying airplanes, I had my first encounter with a spinning propeller.

I was with a bunch of flying buddies at our preferred float-flying spot, enjoying the late summer morning. It was the first flight of the day on my .30 four-stroke powered Newbie float plane. As the flight progressed, I could see the motor was not developing full power, so I made an early landing and taxied back to do some engine adjustment.

With another flier holding the airplane, I was adjusting the high-end needle setting when my hand somehow wandered into the full-throttle propeller. In an instant, the motor stopped and the blood began to run. The cuts were quite serious and we immediately went into damage-control mode. We had a first aid kit along, but it was a small one. We applied pressure and bandaged the wound with the only high strength tape available, a roll of black electrical tape. With the blood flow temporarily stopped, I made my way to the emergency room for a two-hour stay and about 14 stitches from a very competent and friendly emergency room doctor. This little lady looked, to me, to be about 14, but she did a great job sewing up four separate propeller strikes on my right hand. She mentioned that I was her very first prop-strike victim and I replied that it was also a first for me.

Fortunately, there was no permanent damage except to my pride. I managed to hit the blade with the flat of my hand rather



than the fingers. That stopped the propeller and reduced the number of strikes somewhat. It is now almost two months later and I have just the scars to remind me of my errant ways.

Who do I have to blame? No one but myself—it was a preventable accident. In hindsight, I lost what the military calls “situational awareness.” I was so focused on the job at hand (no pun intended), which was tuning the engine that I totally ignored the close proximity to the spinning propeller. I know better. On that day, evidently, I did not know better and all it takes is one lapse in concentration. That is the lesson I leave with you and why I am sharing my experience.

A second observation. This little four-stroke is my smallest motor. Maybe that is why I was not as conscientious as I might have been. As you can see, small propellers do just as much damage as big ones.

please see **On the Safe Side** ... on page 3

# Leader Members Online

Contact Rusty at [rustylm@verizon.net](mailto:rustylm@verizon.net)

Rusty Kennedy, Chairman Leader Member Program Development Committee

The Leader Member (LM) Program has been approved and is ready to go. Visit the LM Web pages at [www.modelaircraft.org/membership/leadermember.aspx](http://www.modelaircraft.org/membership/leadermember.aspx). They contain all kinds of information for the Leader Member. Take a few minutes to look around and check out all the areas. When you're done send me an email at [leadermember@modelaircraft.org](mailto:leadermember@modelaircraft.org) telling me what you think.

You will see two new LM categories, Flight Support and Education Support, listed on the LM application. These are intended to be working LM categories given to those who want to become actively involved in AMA's mission. Any

Open member may apply for LM status. This 2012 membership year LMs will be working in three areas: Membership, Education, and Branding.

Membership: This is self-explanatory. Membership has been in decline and we as LMs need to help turn this situation around.

Education: Many members know little, if anything, about AMA beyond insurance and *Model Aviation* magazine. We need to do a better job of having a well-informed membership that is aware of the benefits of AMA association.

Branding: Does your website reflect that you are an Academy of Model

Aeronautics Chartered club? Is it on the homepage and is AMA spelled out? How about your field? Do visitors know your club is an Academy of Model Aeronautics club?

Step up, let's work together to make a difference. Many LMs wrote in the LM survey that they wanted to help. AMA has heard you and provided an avenue for those who wish to become active, participating LMs.

Lastly, AMA has elections in progress. Read the candidates campaign statements and *vote*. Inform other AMA members of the importance of voting and show them where to get candidate information. →

## On the Safe Side continued from page 2

A third observation; and one that my flying group has now corrected. Our first aid equipment was inadequate. We have since purchased a much better equipped first aid kit and put it in the storage locker in our retrieval boat. That kit now matches the one we have at our field. By the way, it still includes the roll of electrical tape. I can vouch for how well it worked at compressing the bandage over the wound.

A fourth observation. I have my flying buddies to thank for the help and assistance. It is important to surround yourself with fellows who are safety conscious and who can be trusted in an emergency.

And last: Never, never stick your finger in the propeller.

### Arming Switches on Electric Airplanes

This past summer, I learned of a couple of instances where an electric airplane started before the pilot was ready. In one instance, the pilot turned on the transmitter but had it improperly set to another airplane program. Evidently, the

programmed airplane had the throttle reversed and when the airplane battery pack was plugged in the motor engaged. Most good ESCs are supposed to prevent this by making you put the throttle to its lowest setting before arming. I'm not sure what happened here.

In the second instance, the airplane was on the bench and the transmitter had yet to be programmed. The throttle stick was in the mid-range. Once again, when the battery was plugged in, the motor engaged.

An arming switch is a good way to prevent any accidental motor start on an electric airplane. They are most feasible on larger motors, but many electric gurus say they can be fitted to an airplane of almost any size.

Another good reason for the arming switch is to be able to plug in the battery and then prepare the airplane for flight. Many times there are cowlings or hatches that have to be secured or other preflight preparations to complete. Why do that with the battery and motor armed?

A number of commercial arming

switches are out there. They are not very expensive and are easy to use. Your local hobby shop can surely provide you with one.

If you want to tackle the project in your shop, just peruse the online forums and you will find lots of pictures and schematics. Here's one in the RCGroups forum: [www.rcgroups.com/forums/showthread.php?t=1335070](http://www.rcgroups.com/forums/showthread.php?t=1335070).

And here's an even better idea. These two clubs have posted pertinent information and how-tos on their websites for their members and others to use. I think that is a great idea. It would be a simple matter to create a link on your site to these documents or write one of your own.

Here's a great reference from the East Bay RC Club in Livermore, California: [www.eastbayrc.org/TimTips/TimsTips\\_ArmingSwitch.htm](http://www.eastbayrc.org/TimTips/TimsTips_ArmingSwitch.htm).

And another from the White Hills Eagles club in Shelton, Connecticut: [www.whitehillseaglesrc.org/membercontent/%5Ctransmittercutoff%5Celectricflightthrottlesafety.pdf](http://www.whitehillseaglesrc.org/membercontent/%5Ctransmittercutoff%5Celectricflightthrottlesafety.pdf). →



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# Turbine Waiver Designation on AMA Membership Cards

We finally did it!

Many members of the turbine community have approached us in the past about combining the turbine waiver and membership card into one. After several reviews, more pondering, and some tweaking, we are happy to announce that starting with the 2012 membership year, turbine waiver designations will now be reflected on AMA's membership cards!

The turbine designations will be identified on the membership cards as follows:

- Turbine Fixed
- Turbine Rotary
- Turbine Control Line
- Turbine Homebuilt

Combining the data onto one card is a more convenient approach for all turbine waiver holders. It will also provide club officers and event officials with a much easier way to verify an individual's turbine waiver status.

If you have any questions regarding AMA's turbine program, please contact us at [turbines@modelaircraft.org](mailto:turbines@modelaircraft.org). →

# John Worth: 1924-2011

Rachelle Haughn, Copy Editor

John Worth, 87, who was a big part of AMA's history, died October 23 in Sarasota, Florida. He is survived by his wife, Lillian, three daughters, a son, and a grandson.

He was born February 20, 1924, in New York and began modeling as a child. He joined the AMA in 1938 and his continued involvement with the AMA led to him being named the 13<sup>th</sup> president in 1963, and serving nearly 30 years as the organization's executive director. He also served as assistant historian—helping organize a new AMA history program.

Until his death, he wrote the "Indoor and Micro" column for the AMA's *Park Pilot* magazine.

When the AMA was struggling to retain members and overcome financial hardships, John had a hand in publishing AMA news in *American Modeler* magazine, which helped membership numbers soar and the organization rebound.

He received many AMA honors throughout the years. He also was honored twice by the National Aeronautic Association, was recognized by the British Model Flying Association, FAI (Paul Tissandier Award), National Free Flight Society, the Vintage RC Society, the Society of Antique Modelers, and the National Indoor Radio Aircraft Controllers.

More information on John will be published in a future edition of *Model Aviation*. →

# Installing a Bubble Canopy

Gerard Geopfert

1. Cut your canopy to shape as you would install it on the airplane. Trace the outside shape of the canopy onto a piece of 1/16-inch sheet balsa. Cut out the shape you traced, but make it slightly smaller so it will fit inside the canopy at the bottom edge, which would rest on the airplane.

2. Use 1/8-inch square balsa and attach it on top of the perimeter edge of the 1/16-inch balsa piece that fits inside the canopy. You now have a flat piece of balsa sheet with a 1/8-inch raised edge (a wall) around the perimeter. Sand, and fit to the inside shape of the canopy.

3. Fasten your pilot to the sheet balsa and paint the balsa. This will become the floor of the cockpit.

4. Paint a 1/4-inch band around the lower outside edge of the canopy. This could match the color of the fuselage or, in my case, I painted the lower edge black.

5. After the paint dries, fit the balsa cockpit floor inside the canopy for a test fit. Sand the edges, bevel the balsa wall, etc.

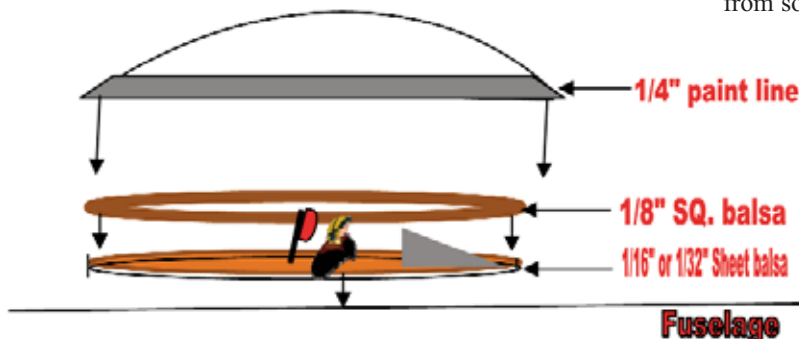
6. Use a piece of 400-grit sandpaper and slightly roughen the canopy just under the paint, around the whole perimeter.

7. Epoxy your painted and finished balsa cockpit floor onto the fuselage where the canopy will be placed.

8. After the cockpit floor is firmly glued in place, apply some 30-minute epoxy around the inside bottom edge just under the painted 1/4-inch band. Use enough epoxy to cover the plastic canopy edge only. Take your canopy place it over your fastened cockpit floor and press down into place. You are done!

You will see that the canopy is fastened in place, neatly, without screws, pins, and sloppy glue showing anywhere. Best of all it will not come off. One extra step I did was to thin some epoxy and coat the underside of the cockpit floor, let it dry and then fasten it to the fuselage. This was to prevent any oil or fuel from softening the balsa cockpit floor and discoloring it. You will not see the balsa wall because it is covered by the paint on the canopy, and there is no epoxy smeared around the fuselage outside the canopy edge.

I somehow devised this on the fly and I was so surprised at the results. I had a beautiful plane and I was worried that fastening the canopy would look poorly. →



# Scale Plans Building for the Novice: Part 3

Jerry Bates

*A comprehensive article on selecting and building your first scale RC model airplane from plans continues from the September 2011 AMA Insider.*

## Building Your Model

I think I have developed a method for maintaining one's enthusiasm from start to finish of a plans-building project. It just may work for you. We are normally full of vim and vigor at the time of plans purchase, but often run out of drive along the way and sometimes don't even finish the project.

Most of us start with the fuselage. That is usually the most action-oriented part of the airplane and the portion that gave it the character that attracted you to it in the first place. Here we normally cut and assemble as we go. The problem with this method is, the deeper into the project we get, the more difficult and boring it may become. This results in a loss of enthusiasm for the project and often the model is not completed.

A visit to your friends' workshops will confirm this. Notice all the half-completed projects. You will see mostly framed-up fuselages and no wings. Look in my shop and you will find several projects that have been gathering dust for years. Builders run out of enthusiasm.

My solution: do the hard parts first. Hear me out; it's not that bad. Begin by making a complete kit of your project. Cut out and label all plywood and balsa parts. Keep the small parts in Ziploc plastic bags and put everything in an old kit box. Don't leave anything out. Look carefully; include the aileron, rudder, and elevator center sheets, wing saddles, large fillets, etc. You will note that spruce is called for in places. Spruce has become very difficult to come by lately and most builders are substituting basswood. I still prefer spruce. It can be found, but prepare to pay a premium for it.

Don't start gluing just yet. Build all hardware for the project like the tail wheel assembly, control horns, etc. Collect the commercially available hardware needed such as control horns, hinges, nuts and bolts, etc. Purchase the cowl, canopy, and other accessories you need to detail your model to the extent

you desire. Your engine of choice should also be procured by this time. Now would be a good time to get the retracts and wheels as well. Drill the formers and install blind nuts as required to accept the engine, retracts, and tail wheel assemblies at this time.

Now, stand back and have a look at what you have put together. That is quite an impressive kit, an accomplishment to be proud of. It was a good deal of work to get to this point and your level of enthusiasm may have dropped a bit by now. Invite your friends over for a look at what you have accomplished. It won't take long for the pride in your achievement to rekindle your desire to finish the project. Another major plus for you at this juncture is that you now have intimate knowledge of the inner workings of the model and the fit and relationship of the parts.

## Retracts and Wheels

While they are often the single largest expense of a model airframe, with the possible exception of the engine, retractable landing gear is the one operating feature that adds the most character to a model. They can also be the one feature that improves the flying characteristics of a model the most. The thought of installation and operation of retractable gear is often viewed as such a daunting thing to tackle for a novice, that they may put off building a model with them for years. This may well be a new area and require a learning curve before you can feel comfortable with them, but it is truly not as difficult as you may think.

Most plans designers have retractable and fixed gear specifically designed for their plans. The plans will be designed for installation of the gear as well. That alone should remove most of the fear a novice builder may have for using them. The gear will either be available directly from the plans designer or through manufacturers noted on the plans or in the construction manual. Most will include directions for installation and operation.

The wheels required for the plans are often noted on the drawings and available from several manufacturers and hobby suppliers. These items, as noted, have

been constructed and tested for the plans and are the preferred items to complete the model.

The majority of retractable landing gear manufactured for scale aircraft are pneumatic types. That means they operate by compressed air stored in a pressure vessel within the model. Air lines are routed to the individual gear to power pneumatic cylinders for retract and extension. A small control valve is installed in the air lines and is operated by a servo to signal operation of the system. Some gears are furnished with the pressure vessel, air lines, and control valve. Other manufacturers offer them separately.

Other choices are gear operated by electric motors, and mechanically operated gear connected to a servo by a pushrod. Another method is the hydraulically operated gear systems. They are similar to the pneumatic arrangement, but utilize hydraulic fluid instead of air as a motive fluid. Hydraulic leaks inside the model can cause serious damage to the airframe so these units are not often used.

## Tips on Sheeting

Like everything else in this hobby, there is more than one way to do everything. Again, we are going to stick to the tried-and-true basics. The first thing we need to do is learn how to edge glue individual sheets of balsa together in order to produce one large sheet to cover an area the size of a wing panel. Of course, you would use the same method wherever a large area needs to be balsa sheeted.

Types of balsa: The three basic grain types of balsa are classified as "A," "B," and "C." A-grain sheet balsa has long fibers that show up as long grain lines in the surface of the wood. It is very flexible cross the grain and bends around curves easily. You normally use A-grain balsa to cover round fuselages, and the sharp curved areas of some wing leading edges. A-grain balsa is normally soft and should not be used in areas where high strength

please see

**Scale Plans Building ... on page 6**

is required, or to span large unsupported areas. You may consider using A-grain balsa to sheet fins, stabilizers, elevators, and rudders to keep the tail-weight of the model to a minimum.

B-grain sheet balsa has some of the qualities of A-grain and C-grain balsa. The grain lines are shorter than those of A-grain balsa and it is stiffer across the grain than A-grain balsa. B-grain sheet balsa is normally used for general sheeting of flat and gently curving surfaces like wings, stabilizers, fins, and fuselages.

The surface of C-grain sheet balsa has a molted appearance. It is sometimes called “quarter grain” balsa. It is very stiff across the grain and splits easily when conforming to a curve during application. C-grain balsa is very strong and the most warp resistant. C-grain balsa is normally used for wing ribs and fuselage formers.

**Making the Edges Straight:** The first thing we need to do is make the edges of the sheet true and square before joining them. I use a piece of lightweight metal angle with medium weight sand paper attached to it. Use a piece of 2½-inch x 2½-inch x 1/8-inch steel angle five-feet long available from your hardware store. Cut 2½-inch strips of 100-grit sandpaper and fasten them to one inside face of the angle with 3M spray adhesive. Coat the face of the angle and the back of the paper and apply the paper to achieve one long sandpaper-covered surface. Fasten the angle to the underside of your worktable with some C clamps at each end so the sandpaper projects above the edge of the work surface. I have used a five-foot-long sanding angle to accommodate 48-inch-long sheeting. If your sheeting is limited to 36-inches long then a 48-inch-long sanding angle will be more appropriate.

Place a piece of balsa sheet on the work surface and push the long edge up to the sanding edge. Lightly move the wood sheeting back and forth until you have a smooth, gap free, straight edge. Do this to all the wood sheeting edges you will be gluing together.

**Gluing the Sheets Together:** Select the best side of the wood and place the sheets good face down on the building surface. Join the edges and check for gaps. You may need to smooth some edges again on the sanding angle to get a good, gap-free fit. Clean all the dust from the wood with compressed air, a dusting brush, or *slightly* damp cloth. Now we will join the sheets together with ¾-inch wide masking tape. Push the joints tightly together and run a strip of masking tape down the full length of each joint. After you have the panel taped together, gently turn it over and lay it flat on the building surface.

Now we are ready to glue the joints together. We will be using aliphatic resin glue (white glue, wood glue). We will need to elevate the sheeting from the building surface beneath the joint we are going to glue. Place an object such as a clothespin under each end of the joint. Run a small bead of glue down the entire length of the open joint then remove the clothespins. Press the glued wood joint down on the building and remove the excess glue with a damp cloth. Do each joint until you have completed the panel. I like to apply pressure to the panel to ensure a true and flat panel. I use several pieces of 2 x 4 placed on approximately 6-inch centers on the panel 90° to the joints. You can then place objects on the 2 x 4s to weight them down. Don't

use too much weight, as you will deform the wood. Place waxed paper between the 2 x 4s and the panel to keep them from sticking to any glue forced from the joints during this operation. Leave everything in place for about 12 hours so the glue will have time to dry.

Next process is to remove the weights and turn the panel over. Remove the tape and sand the panel smooth and flat. Use a sanding block with 100-grit sandpaper and finish with 150-grit paper. You will need to do all the sanding of the panel while the panel is on the building surface. Do not attempt to sand the panel after it is attached to the model structure. To do so will result in what is called “staved horse” or “oil canning” of the panel. The panel will flex between the ribs or formers causing it to be sanded thinner at the attachment points. After covering and finishing you will see a rippled surface.

**Sheeting Tapered Wing Panels:** Here is a method I use when applying balsa sheeting to tapered wing panels in order to avoid warps. The idea is to create a balsa sheet panel with the leading edge and trailing edge sheeting grain matching the wing taper. Draw the trailing edge and leading edge of the wing on the panel. Then draw a line 2½ inch parallel to and forward of the trailing edge on the panel. Cut the panel sheeting along this line and glue a 3-inch wide balsa sheet to the trailing edge of the panel. Do the leading edge in a similar manner. For the leading edge you draw a line on the panel at the center of the forward spar so that joint will have the backing of the front spar. Cut the wing panel at this point and glue a tapered sheet to the panel that will have the grain parallel to the leading edge. Make sure the finished panel is about ½- to ¾-inch larger than the plan view of the wing.

**Attaching the Sheeting to the Model:** As I noted previously, we will be using tried-and-true methods for accomplishing this task. There are faster ways of doing this job like the use of cyanoacrylate adhesives specifically made for this task. You may wish to try that method in order to avoid all the pins we are going to use. Just make certain you follow the manufacturer's written procedures. There is one method I would not recommend though and that is contact adhesives. Besides being very heavy, the primary drawback to their use is that if you make one small mistake you will have a warped wing. In this example, we will be sheeting the top surface of a wing panel. We will be using aliphatic resin wood glue and pins to hold the panel in place while drying.

Do not cover a wing panel unless it is firmly pinned to the work surface. The result from doing so will be a built-in wing warp. I place a 24-inch x 48-inch sheet of ceiling tile on my building surface to give me something to pin to. Use a long sanding block in a chord-wise motion to bring all the ribs to smooth alignment. Dust off the structure. I like to apply a mark on each end of the wing sheeting to help align it with the main spar of the wing structure. Apply a bead of wood glue to all the surfaces that will come in contact with the wing sheeting, from the main spar, towards the trailing edge of the wing. Place the sheeting on top of the wing structure and align the marks with the spar. Start by pinning the sheeting to the main spar. Press the

please see **Scale Plans Building** ... on page 7

# 75<sup>th</sup> Anniversary Club Newsletter Contest

## AMA Staff

To help celebrate AMA turning 75, we are inviting clubs to participate in a newsletter contest. Each club has the opportunity to dedicate one issue of its newsletter to the AMA 75<sup>th</sup> theme during the 2011 calendar year.

Newsletter editors have total freedom with this challenge. The only rule is that it must contain information pertinent to AMA's 75<sup>th</sup> Anniversary. Clubs can find resources/information for their newsletters by visiting [www.ama75.com](http://www.ama75.com) or by looking within their membership.

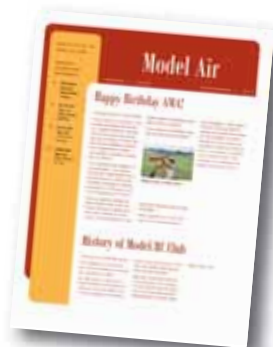
For example, do you have a club member who's been around since the 1936 inception whom you could interview? Are you a member of an old club? Chart its progress over the years in relation to AMA's growth.

Prizes for first, second, and third place will be awarded. The first-place winner will receive an award plaque for its club and the club's newsletter editor(s) will receive a one-year free AMA membership. Monetary awards for redemption at the Cloud 9 Museum Store will be awarded to all three winners at \$75, \$50, and \$25 respectively.

Judging will be done by a group of AMA Headquarters employees. Winners will be recognized in *AMA Today*, January 2012 *AMA Insider*, and "In the Air" in the March 2012 *Model Aviation*.

The deadline to submit club newsletters is Monday, December 19. Submit your newsletters to Newsletter Contest, attn.: Ashley Rauen, 5161 E. Memorial Dr., Muncie IN 47302, or via email in PDF form to [ashleyr@modelaircraft.org](mailto:ashleyr@modelaircraft.org). Please specify your submission is for the 75<sup>th</sup> contest.

Good luck! →



## Tips & Tricks

### Get Clean!

If you forget to use a barrier cream or latex gloves to prevent your hands from getting sticky when using epoxy, don't use alcohol, acetone, or other solvents to clean them. Besides being harsh on your skin, those chemicals always leave a sticky residue no matter how many times you wipe your hands.

Instead use hand lotion to remove the epoxy residue. Just wash your hands with the lotion, rinse it off and the wash again with regular hand soap. It works like a charm and your hands will smell great!

—from Allen Rice, Boca Raton, Florida

### Gloves for CA

If you're allergic to latex, one thing that works really well as an alternative—and is really inexpensive—is to use cheap plastic sandwich bags to cover your hands. They work well and are thin enough that you can feel that heat of the glue as it sets.

This works really well when you are applying glass cloth with CA, because you can hold the cloth to the balsa and feel when the glue sets. It lets you use very little CA to put down the cloth and saves quite a bit of weight.

—from Bob Furr, the Eugene Prop Spinners, Eugene, Oregon

### Need a bench?

Need an extra workbench, yet don't have the space for a permanent one? How about an ironing board? If has a padded top (if you choose), is adjustable for height, and you can even sit down while covering or doing close-up work. Best of all, you can fold it up and put it away.

—From The Tail Spinner

## Scale Plans Building continued from page 6

wood panel to the spar and place the pins on ½-inch centers. Work the wood panel from the center toward the trailing edge and to the ends. Pin the wood panel to each rib and the other spars at ½-inch intervals.

Pin the wing leading edge sheeting in place last. That portion of the wing is normally the strongest part of the wing framing. Having the rear portion of the wing sheeting pinned in place first will strengthen the assembly and make it less likely the wing will warp when pressing the sheeting into the sharp curve of the leading edge. Dampen the top surface of

the leading edge sheeting to make it easier to pull in place. Spray Windex is ideal for this purpose (a mixture of ammonia and water). Place a bead of wood glue on the wing structure surfaces that will come in contact with the sheeting. To do this, attach a short length of tubing, like fuel tubing, to the spout of the glue bottle. Reach under the sheeting with the tubing and apply the glue. Press the sheeting in place, again working from the center towards the ends, and pin in place like previously done.

Let the assembly set over night to dry. Remove the pins by twisting them and

pulling them out. You can now remove the assembly from the work surface. You will not be able to access all the pins you used to pin the wing structure to the work surface but don't worry about this. Gently pull the structure of the work surface a little at a time by pulling on areas around the perimeter until it comes loose. Turn the wing over and remove the pins. You can now complete the internal wing construction and sheet the lower half.

*Tune in to the January 2012 AMA Insider for Part 4: Tips on Strip Planking and Glassing.* →

## AMA Vision

We, the members of the Academy of Model Aeronautics, are the pathway to the future of aeromodeling and are committed to making modeling the foremost sport/hobby in the world.

This vision is accomplished through:

- Affiliation with its valued associates, the modeling industry and governments.
- A process of continuous improvement.
- A commitment to leadership, quality, education and scientific/technical development.
- A safe, secure, enjoyable modeling environment.

## AMA Mission

The Academy of Model Aeronautics is a world-class association of modelers organized for the purpose of promotion, development, education, advancement, and safeguarding of modeling activities. The Academy provides leadership, organization, competition, communication, protection, representation, recognition, education and scientific/technical development to modelers.

### ABOUT THE AMA *INSIDER*:

The Academy of Model Aeronautics' AMA *INSIDER* is published electronically on a bimonthly basis for members of the Academy of Model Aeronautics. Its purpose is to create a network of information exchange between the Academy of Model Aeronautics-chartered clubs as well as the Academy of Model Aeronautics officials and chartered clubs.

The newsletter's contents are collected from Academy of Model Aeronautics club newsletters and various other sources within and outside of the organization. Implicit consent to reprint articles found in club newsletters is given whereupon the newsletter editor completed and returned the Club Newsletter Exchange form or initiated contact with the Academy of Model Aeronautics by sending a newsletter, either via mail or email, to the newsletter editor.

Articles or links to outside websites reprinted in the newsletter do not necessarily reflect the opinion of the Academy of Model Aeronautics nor are these articles or links intended to be endorsements of particular products.

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The Academy of Model Aeronautics reserves the right, in sole discretion, to edit or reject any material submitted for publication.

### CONTACT US

We welcome your comments and suggestions about the AMA *INSIDER*. Please send them to:

#### Newsletter Editor:

Ashley Rauen, [ashleyr@modelaircraft.org](mailto:ashleyr@modelaircraft.org)  
(765) 287-1256, ext. 228

#### Advisor:

Liz Helms, [lhelms@modelaircraft.org](mailto:lhelms@modelaircraft.org)

#### Director of Publications:

Rob Kurek, [rkurek@modelaircraft.org](mailto:rkurek@modelaircraft.org)  
(765) 287-1256, ext. 220

### SUBMISSIONS

If you are a member of an AMA charter club and would like to submit your newsletter or an article for consideration. Please send it to us via email or postal mail.

#### E-mail:

We will accept your newsletter in PDF format or as a Word document attached to an e-mail. Please send the email to:

[ashleyr@modelaircraft.org](mailto:ashleyr@modelaircraft.org)

#### Postal Mail:

Hard copies of your newsletter can be sent to AMA Headquarters. Please mail to:

**AMA Newsletter Editor**  
5161 E. Memorial Dr.  
Muncie IN 47302

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[www.modelaircraft.org](http://www.modelaircraft.org)  
Tel.: (765) 287-1256 | Fax: (765) 289-4248