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BIMONTHLY NEWSLETTER FOR CLUB
OFFICERS AND LEADER MEMBERS

AMA INSIDER



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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.

AMA Vision

We, the members of the Academy of Model Aeronautics, are the pathway to the future of modeling 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.

President to President

AMA is Working for You

Bob Brown, AMA President, bobb@modelaircraft.org

When you read the column by Rich Hanson in April's *Model Aviation*, I hope you realize the Academy is working for the membership. The attachment we placed on the FAA Modernization and Reform Act of 2012 certainly illustrates our goal of maintaining model aviation as we know it today.

Special thanks go to our AMA Government and Regulatory Affairs Advocate, Rich Hanson, our government liaison Mitch Rose, and our Executive Director, Dave Mathewson. The bipartisan bill was assisted by the following members of Congress and their staff: Senator Jim Inhofe (R-OK), Rep. John Mica (R-FL), Senator Jay Rockefeller (D-WV), Senator Kay Bailey Hutchinson (R-TX), Rep. Tom Petri (R-WI), and Senator Maria Cantwell (D-WA). Thank you is also extended to each AMA member involved in last year's letter-writing campaign. It is obvious we were heard.

Another person we owe our gratitude to is Lynn Spencer. She is the UAS Safety and Standards Analyst for the FAA and is one of the key people responsible for the positive relationship we have with the FAA. Lynn has received a promotion and will not be working with us any longer. Good luck, Lynn!

Although I would like to say our mission is accomplished, I doubt that the FAA scrutiny will disappear. Additional work will likely be necessary.

The 2012 WRAM Show is history. The Westchester Radio Aero Modelers' decision to move to a new venue was certainly a positive step and seemed to create an increase in participation. It was enjoyable to visit with modelers from the Northeast. The largest RC trade show, the Toledo Expo, is just around the corner. See you in Toledo, Ohio, on the weekend of April 13 through 15. →



Have you received your March *Model Aviation*?

What do you think?

Love it or hate it, we want to hear from you!

Please visit www.ModelAviation.com/designsurvey to complete a brief survey.

Thank you for your participation!

Odds and Ends

Jim Tiller, On the Safe Side author, jtiller@hotmail.com

Disposing of Batteries

You can't be in this hobby without using batteries. With the proliferation of electric flying, even more batteries entered our lives. These batteries eventually go bad, so we are faced with how to dispose of them. For many years it was the trash can. Now, with all the exotic combinations, it is more of a hassle. "Green" environmental laws and regulations are also a consideration. In some states, it is illegal to dispose of any kind of battery—even alkaline cells, in the trash.

The easiest and most environmentally friendly way to dispose of all your batteries is to put them in a plastic bag, and when you've collected enough, take them to a battery recycler. Many hardware stores or home centers have boxes or bins that will take batteries. There are also battery retailers such as Batteries Plus or Interstate Batteries that will take them. There is even a website that will send you a box to put your batteries and other hard-to-dispose-of items such as fluorescent bulbs. When it's full, you just drop it in the nearest FedEx box. (www.lamprecycling.com/)

LiPo cells are the ones that are the biggest concern for most fliers. There is plenty of Internet information about the care and feeding of LiPo batteries. You simply *cannot* charge LiPo batteries without a proper peak charger and a fireproof container. If they overcharge, they build up gases. If those gases produce enough pressure, the cells will rupture energetically (notice I did not write explode), releasing those gases that then combust mixing with air. Most have read and heard the horror stories associated with LiPo batteries.

But this essay is on disposing them. If you simply must dispose of them yourself, here are some simple instructions, but you can search the internet for a more complete set.

Before you dispose of a LiPo battery, you should discharge it. (Don't try to discharge a damaged pack. If it is damaged, skip down to soaking the cells in salt water.) Many LiPo chargers also discharge the same packs. If so,

just discharge the battery to the lowest point allowed on your charger (less than 1 volt per cell). Follow the same safety instructions while discharging as you do for charging.

If your charger won't do it, a 12-volt light bulb wired between the poles will do the job for smaller packs of three cells or less. Let the pack discharge an hour or so after the light bulb goes out.

Soak the cells in salt water ($\frac{1}{2}$ cup of salt per gallon) for a few days. Soaked and discharged LiPos are safe to put in the trash or the recycling bag depending on local regulations.

The biggest environmental concern is the Nickel Cadmium (Ni-Cd) and Nickel Metal Hydrides (NiMH) batteries. First of all, the metallic residue can be recycled and reused. Second, they are toxic waste if they find their way into the landfill and/or our water supply.

Field Cleanup

Spring is when most clubs schedule time for cleanup and fix up. As you go through your routine field maintenance, remember that a great many of the insurance claims presented to the AMA are not for injuries directly associated with modeling activities, but are from injuries that occur to people while *on* your flying site. Frequently those injuries happen to young people who are guests at your field. Some claims have been filed by individuals who were injured long after normal flying hours or even illegally trespassing on a flying site.

On your maintenance check list should be a thorough inspection of your site for potential hazards that could cause injury. Think outside the box. Here's a (by no means complete) list that might stimulate your thinking.

- Are there any piles of boards, bricks, or branches someone could climb and fall from?
- Are there any posts or stakes that could impale someone who falls?
- Are there any low-hanging wires or chains that a person, of any height, at any time of day or night, might hit?
- Is the location of your site (you might include the GPS location) posted on the field so anyone who called 911 could direct emergency responders to

your site?

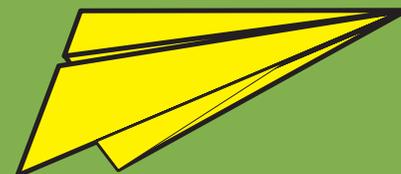
- Are there any frayed electrical wires or uncovered electrical connections?
- Are there any potential poisonous or toxic substances that are not under lock and key? Children can find their way into almost anything.
- Are seats and tables used by the public substantial enough to handle a load and free of cracks and splinters?

None of us can totally free ourselves of liability, but one of the tenets of a negligence lawsuit is that you *must owe a duty of reasonable care to the person claiming an injury*. If you take the time to document your search for potential hazards, it may help you prove that your group is always attentive to issues of public safety and that you have a history of actions showing your concern for the safety of your members and those who visit your field.

I received some feedback on the last issue's column. Thank you all for sending that information. Many said they do have many safety-conscious fliers at their field, but there were a few who were a concern as well. Maybe there is enough there for another column in the future. Thanks, again, for the messages. I take them all to heart. →

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www.modelaircraft.org/

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Promoting Model Aviation

Rusty Kennedy, Chairman Leader Member Program, rusty1m@verizon.net

On January 9, 2012, I was pleased to learn that AMA President Bob Brown, reappointed me Leader Member (LM) Committee chairman. This is a high honor and much appreciated.

According to our president, this year's focus should be on promoting model aviation and increasing our membership as well as continuing to build youth outreach programming.

A viable goal, I think, is to eventually have a LM in service to each club. A person who will stay abreast of AMA programs and information—this would be the local club AMA information guy. The member who stands up and says, "Did you know that AMA has this available for clubs and members?"

With the outdoor flying season approaching, especially in the northern half of the country, now is probably the time to tell your club about the many AMA programs available to their members.

Each month have a little something to inform the club about. An easy way to obtain information is by subscribing

to *AMA Today* (www.modelaircraft.org/publications/AMA_Today.aspx) and the *AMA Insider* (www.modelaircraft.org/insider/index). Current AMA news comes straight to your email. Regularly checking out our revamped website is also a good idea, especially now that it is populated with timely blog posts about all sorts of topics.

One challenge in promoting model aviation is that, all too often, it is hidden from public view. Many flying fields are in out-of-the-way areas and generally not seen by passersby. The answer? Clubs might consider leaving the flying field and meet the public in places they normally frequent.

One option might be conducting a mall show. (The AMA Headquarters staff will ship free handout materials to chartered clubs and award a commemorative pin to workers. Clubs should notify AMA Headquarters 30 days before their planned show to allow time for shipping.) Participating in airshows, county fairs, and local parades are other ways we can introduce the public to what we do. This

site: www.modelaircraft.org/aboutama/mediaroom.aspx, gives information about how to promote and market your event and how to work public relations.

The opportunities to promote aeromodeling to our friends and neighbors are endless. AMA has programming to help such as the Take off And Grow (TAG) Program (www.modelaircraft.org/education/tagprogram.aspx), the Delta Dart Program, and several others intended to engage kids and introduce them to aeromodeling.

Youth are the future of AMA. They are the future club officers, associate vice presidents (AVPs), district vice presidents (DVPs), and maybe even AMA president. Plus, I think many of you will actually like working with kids!

Everything an LM needs to be informed is on the AMA website, *MA*, *AMA Insider*, *AMA Today*, and through communications with your AVP and DVP. It's always a good idea to make regular contact with AVPs in your area. We're all in this together. ➔

Club Corner

AMA resources

Jim Wallen, Club Corner author, sjwallen@tde.com

Do you utilize the resources that AMA makes accessible to you? There is a wealth of information that can be of use to both you as an AMA member or the club you have chosen to join.

Most of us are familiar with *Model Aviation*, as AMA sends us a copy every month. Take a few moments and read what your president, executive vice president, executive director, and district vice president have to say. Columns are provided by others such as AMA's Education Director and Flying Site Coordinator. You might be surprised by the tidbits of information you may find of value to you or your club. *AMA Today* and *AMA Insider* are excellent publications that are available on the Internet as well.

The revamped website has a vast wealth of information. Take the time to browse through it and read some sections you have never paid attention to in the past. Take a look at the Documents section. You will be amazed at what is available to you. Don't forget about your district website in addition to the one maintained by AMA.

Perhaps the most valuable communication tool available to you is the human one. Get to know the associate vice president for your area. Send him or her an email to better your relationship. This is your closest link to getting answers to questions you may have related to AMA. Your district vice president is always available as a resource to you as

well. We are also fortunate to have an executive director in Muncie as well as a president who always have their door open for you. Contact information for all these individuals is in *Model Aviation*. Leader Members (LMs) are one of the cornerstones of our membership. Get to know those who have chosen to play a role in this program. Check out the LM application available on the website and perhaps you would like to become a part of this program also.

Keeping yourself and your club better informed will pay dividends down the road. This is a hobby that truly has more to offer than just "burning holes in the sky." Take the time to expand your horizons and have a bucket of fun in the process. ➔

Need money for college?

Applications for AMA grants and scholarships are due April 30, 2012.

Visit www.modelaircraft.org/education/scholarships.aspx

2012 Club Charter Renewal Season

AMA Safety & Member Benefits Department, clubs@modelaircraft.org

The **2012 club renewal season** has officially begun! All of the club charter renewals were mailed to the club contact on file at AMA Headquarters in late January. If you have not received your renewal mailing, please contact us!

Here is a quick checklist to avoid delays in the processing of your charter.



- Sign the officers' sheet! This is the most overlooked item! We will have to return this if there is no signature.
- Make sure all club officers are current (2012) AMA members.
- Be sure your Safety Coordinator has a valid email address listed. This is required!
- Include (correct amount of) payment via check, money order, or credit card. Note that we only accept Visa and MasterCard.
- Provide GPS coordinates for each flying site and verify the information for the ones you have provided to us in the past.
- Individuals with a Three-Month Trial Membership cannot hold an officer position.

New for 2012

We modified the processing and distribution of insurance certificates for the property owners of your flying site(s) and meeting location(s) this year. This was necessary because of changes in insurance that were beyond our control. Be sure to read the letter that was included in the renewal mailing!

How we connect with you

AMA uses an account through ExactTarget, an email management software, to directly communicate with members and clubs. If you have previously unsubscribed from AMA's ExactTarget emails (or are unsure about your subscription status) please contact us so that we can ensure you are receiving all of the relevant information.

Looking for a way to contact us?

If you have questions, don't hesitate to contact us. We are here to assist you. You can call (765) 287-1256, send us a fax (765) 286-3303, or email us at clubs@modelaircraft.org. Keep in mind that during the rechartering season—generally February through April—we experience a high call volume. If you call us and are transferred to voice mail, please leave a message and we will return your call as soon as possible.

Thanks for all you do! →

Crash Etiquette

From the Long Island Radio Control Society, NY

While bent over your model tweaking the needle valve, too often you hear "I ain't got it ..." followed by a low frequency thump. Usually several expletives will be inserted, some used imaginatively. A hand-crafted masterpiece of airframe miniaturization crammed with state-of-the-art electronic equipment, and powered by an exquisitely machined engine is no more. The pilot who is frequently the builder/owner has made an unscheduled landing or has discovered the radio in his hands has a greater range than the eyes in his head.

Your immediate problem is how to react. Generally, it is considered bad form to immediately ask if you may borrow the pilot's glow plug battery. Similarly, you probably shouldn't ask if he's finished with the clip.

Any equipment related reasons for the crash you hear are, by definition, reasonable. Pilot error is too rare and sensitive to suggest, so don't say, "That's odd, I haven't had any problems on that frequency today," until at least an hour after the crash. Offer to help go look. Don't say "It sounded like it hit something solid." Note that most lost models are found and returned. Don't act as if he has his name and phone number on the model, or wonder out loud if the model hit a house or a car.

If it looks like more than enough people have volunteered to help with the search, try to weasel out of going. There are ticks and poison ivy out there, and seeing a grown man cry isn't pleasant. If the pilot takes a plastic bag with him or comes back empty handed to get

one, assume the worst. Actually, in a really bad crash, two hands and a pocket are enough space for anything worth salvaging.

Whatever you do, don't hold a postmortem on the spot. The pilot probably doesn't want to discuss:

- Battery condition
- Poor construction
- Pilot error
- Used rubber bands
- Fuel tank capacity
- Light blue covering
- Model selection vs. pilot skills

As best you can, avoid specifics, sound supportive, and look appropriately grave. You'll want the same consideration someday. →

Scale Plans Building for the Novice: Part 5

Jerry Bates, www.rcscalebuilder.com

Fabric Covering

Open-framed structures are often covered with a fabric material. Check your plans and scale documentations for those areas. The entire fuselage and wings—or only items such as the ailerons, elevators, and rudder—may need to be covered. Some plans call for parts of a model to be sheeted and glassed instead of fabric-covered as on the full-scale aircraft. You can replicate the fabric covering of these glassed areas by applying thin tape. This indicates the location of the ribs that would appear beneath the fabric areas on the full-scale airplane, and lets those areas appear as if they were fabric-covered after you have painted the model.

There are several types of fabric materials and methods used for covering open areas of your model. Non-scale airplanes are sometimes covered with an iron-on plastic film, but, I will not review plastic film covering. There are two basic types of fabric covering: chemically adhered fabrics and iron-on fabrics. The airframe must be prepped before applying either.

Fill all depressions and voids. Sand the airframe to provide a smooth surface where it will contact the fabric. Imperfections beneath the fabric, especially high spots, will be visible in the finished surface so make sure everything is level and smooth. Sand with 120-150 grit sandpaper.

Tips on Covering: When covering a wing you should do the lower surface first, then the top surface. The same would apply for the stabilizer, elevators, and ailerons. When covering a fuselage, start with the bottom, then the sides, and finish with the top. This is done so the edges of the material will not be seen from the top of the model. If you are not proud of your seam lines, no one will know. After all, how many people walk up to a model and try to look at the bottom?

I normally cut my fabric about 1 inch to 1½ inches larger all around than the size of the item I am covering. This gives you something to hold onto while attaching the fabric to the structure.

After you have attached the fabric

to the surface, you will need to trim the material to suit. You do not want to fold that 1 inch of fabric over on the other side. You only need about ¼-inch material overlap along the seams. Using the wing TE as an example, I like to tape a ¼-inch square piece of balsa on the opposite wing surface along the TE. Pull the fabric over the TE and trim along the ¼-inch square balsa with a hobby knife. That method won't work for curved surfaces such as wingtips, but it gives you a general idea of the type of trim for which you are looking.

Chemically Adhered Fabrics:

Chemically adhered fabrics are those which utilize paints (chemicals) to adhere to the airframe. The most traditional paint used for this procedure is nitrate dope and the most common fabric used is uncoated polyester material. These materials are best used when trying to achieve the effect of a full-scale aircraft with a fabric-and-dope finish.

For the sake of brevity, I will review only the products of one manufacturer, Sig Manufacturing Company, which has been supplying our hobby with building materials for a long time. The combination of Sig Koverall fabric and nitrate dope is the method we will use. Make sure you use nitrate dope and not butyrate dope for this procedure. Nitrate dope is known as “non-taunting dope.” It will not shrink when drying like butyrate dope does. That is important at this point so we do not warp the airframe. When your airframe is ready to cover, give it several coats of nitrate dope. I like to apply three coats, lightly sanding each one a couple of hours after application.

Cut the Koverall to size and lay it over the structure. Work out all the wrinkles and adjust it for an even overhang all around. Begin by applying a coat of nitrate dope to the fabric with a ¾-inch-wide or smaller brush. Start at the edge of the structure and work around the perimeter. Pull out the wrinkles as you apply the dope. Don't worry about the seam lines where the material may have been folded; we will get that out later. The idea is to glue the fabric to the perimeter of the structure with the nitrate dope. The brushing action forces the dope

through the fabric and it melts the layers you previously applied to the airframe. The material will be glued to the airframe when the dope dries.

Trim the fabric all around the structure and apply another coat of nitrate dope to the perimeter. Paint the trimmed fabric to the backside of the structure. When that dries, apply one more coat to the perimeter.

The next step is to apply nitrate dope through the fabric to the remainder of the structure that comes in contact with the fabric. Do that twice. Do not yet apply the dope to the open areas.

We are now ready to tighten the fabric with heat. You can use a clothes iron set on medium and hold it about ½-inch above the fabric. Do not touch the fabric/doped areas. An easier way to do this is to use a heat gun specifically designed for shrinking model aircraft fabrics. These are sold at hobby shops and hobby supply houses. Do not use a hardware store heat gun. Follow the directions that come with the heat gun, and apply heat to the un-doped areas. Do not apply heat directly to the perimeter of the structure. The fabric will become drum-tight.

After you have finished covering you model it is time to paint the entire covered surface with at least two light coats of nitrate dope. Do not apply heavy coats because it will cause the dope to flow through the fabric and collect on the opposite side. You will have a mess if that opposite side is also fabric-covered.

The airframe is now covered, sealed, and ready for paint. You can use virtually any finish over nitrate dope, but I suggest using Sig products at this point. I recommend butyrate dope with a clear topcoat for a nice high-gloss dope finish.

Iron-on Fabrics: Let's do it the easy way. Iron-on fabrics have one side coated with a heat-activated adhesive. You basically place it, coated surface down, on the structure and iron it in place. There are several manufacturers of iron-on fabric for models—each with different

Scale Plans Building

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Scale Plans Building continued from page 5

characteristics. Some will shrink more in one direction than others, and some have adhesive that comes through the fabric if too much heat is applied. Some fabrics come pre-painted so you don't need to paint the model, but I recommend adding a clear topcoat on the prepainted fabrics for additional fuel proofing. It also makes the model easier to clean up after a day at the field.

I like to use Solartex (available from Balsa USA) for smaller models, ailerons, and elevators on glassed models. Solartex is a fine-weave fabric and shrinks evenly in both directions. Once shrunk to fit, it does not loosen like some fabrics. One drawback with Solartex is that dopes tend to react to the color treatment applied to the outer surface. Also, it only comes in 27-inch-wide rolls and that may not be big enough for some large model wings. I recommend Coverite, available from Tower Hobbies, for larger models. It comes in wider rolls.

You will need a hobby sealing iron and heat gun when using iron-on fabrics. They are available from a hobby shop or hobby supply house. Cut the fabric to suit the structure to be covered, and iron the fabric to the perimeter of the structure. Trim it and iron down all edges. Use the heat gun, working from the center of the structure to the edges, to shrink it to suit. Do not apply excessive heat to the perimeter or you will shrink the fabric away from the edge. Next, iron the fabric to the remaining structure beneath it. You are now ready to prime and paint.

Follow the manufacturer's directions regarding heat and application of their materials, and I am sure you will be pleased with the results.

Surface Detailing

This work is done after the model has been primed and sanded to a 320-grit paper finish. Refer to your documentation and decide how much surface detail you want to replicate on your model. Most notable will be the primary panel lines, hatch, and inspection plate openings and covers, raised rivets, flush rivets, fasteners, hinges, etc. Each of these details can be replicated on the model surface through several methods. I will explain how to accomplish each of these

details by using only one of the many available techniques simply as a method for the less experienced to get started.

Panel Lines: Panel lines are often a subtle surface feature on full-scale airplanes and will show up even less on a model. Aircraft with overlapping panels, such as the Hellcat and SBD, are an exception. Each of these types of panel lines is easily replicated. First, layout the panel lines on your model with a #2 pencil. Press lightly; faint lines will show up fine and can be easily erased should you need to do so.

For flush panel lines, apply $\frac{1}{16}$ -inch wide Chartpak Pickett graphics tape over the lines. Chartpak tape is available from most drafting supply and arts and graphics stores. You can also find it at Office Depot. Use a sharp X-Acto knife to cut them to length on the model.

Next, mix up some of the same primer you already used on the model. Using a trim gun, spray several passes over just the tape. Spray a pattern roughly 2 inches wide centered on the panel lines. Repeat this several times, allowing the primer to flash off between coats. After the primer has dried, use 320 wet and dry paper to sand the panel lines and feather into the surrounding primer.

If you are able to sand your model wet without getting water into the interior or uncovered areas on the model, do so. Sand directly over the tape until it is exposed through the primer. Then, sand the recently applied primer on each side of the panel line to feather it into the existing, primed portion of the model. Once you have completed this all over the model, you can remove the Chartpak tape.

Use an X-Acto knife to peel up one end of the tape then, with your fingers, gently peel it back and off. Some residue may be left behind but can be removed with a paper towel moistened with denatured alcohol. Test this first on your primer because you do not want to use something that will dissolve it.

Replicating overlapping panels is done similarly but with different tape. Apply $\frac{3}{4}$ -inch or 1-inch wide low tack painter's masking tape so one edge represents the panel line. The tape needs to be placed on what will be the lower panel, or the one that fits under the panel

adjacent to it. Use primer on the surface as previously instructed. Sand and feather, then remove the tape, and presto—you have instant overlapping panel lines. You may wish to apply two or more layers of tape to indicate a thick panel.

Hatches and Inspection Plates:

Hatches and inspection plates can easily be replicated using metal duct tape available from hardware stores. Cut the panel to size and stick in place. Press in place using a squeegee fashioned from $\frac{1}{8}$ -inch balsa. This stuff can even be used to trim a canopy to replicate the framework. Cut the tape into strips and desired widths and apply to the canopy. Mask the canopy and paint.

Raised Rivets: Raised rivets can be replicated by using the 'glue drop' method. There are many ways to this. Often, the rivets are applied to the finished, painted model because they dry clear. A disadvantage of this is that the rivets are easily knocked off and they have no protection from the elements. I like to install them under the paint on the primed surface. Painting over them with enamel or heavy paints will enlarge them, so compensate to suit your final finish.

Mix some white glue and water to achieve a consistency of cream. Place the mixture in a shallow container such as a small saucer. Dip a toothpick into the solution then touch it to the model. Experiment with the consistency of the mixture and the sharpness of the point on the end of the toothpick until you are able to get the correct rivet size. The rivets will shrink considerably when dry, so apply them quickly. Several rivets usually can be placed with one dipping of the toothpick.

Flush Rivets: Flush rivets can be replicated on the model surface using a piece of brass tubing in a soldering iron. This rivet should be applied to the finished, painted model because it will fill with paint and disappear if placed on the primed surface. Select a piece of brass tubing that closely matches the diameter of the rivet. Sharpen one end of the tubing to produce a sharp edge on the outside

Scale Plans Building

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Landings

Bob Wilson, Franklin NC, 3dbob37n@frontier.com

Not wanting to be outdone by my friend Gerry Goepfert, who wrote about attaching a bubble canopy, I'm going to write about how to making a better landing with your RC model. I still occasionally draw a few haw-haws when I make three landings in one, but at my age I'm entitled.

As a full-scale pilot, I learned that it was most important to enter a downwind leg, which should be more or less parallel to the runway, followed by a turn to base leg and then to final approach, all of which is known as the landing pattern. For our models, the downwind leg should not be too high and usually 100 feet is plenty and as close in as practical. Our airport, called OTX in Franklin, North Carolina, is 400 feet of groomed Bermuda grass with an additional 100-foot over-run and we commonly land 42% gassers with no problems.

But, allow me to review some of the mistakes I see in making a landing approach.

Either because of stubbornness, or embarrassment, newbies often attempt to force their airplane to land regardless,

rather than performing a missed-approach and go-around, and simply try and jam the airplane into the ground. Ouch! Teach yourself that if you aren't lined up—too high, too low, or whatever—hit the throttle and make a go-around. Take an afternoon and practice nothing but repeated landings and takeoffs or touch and gos. With enough practice, your brain will learn so that things become instinctive.

I often see pilots feed in power and grab for as much altitude as possible during a missed approach. The problem here is that they are now way above landing altitude and to get to the runway again, they have to dive, which builds up too much speed and often overshoot the runway again.

Another mistake I see often is failing to slow down during the downwind leg. In a full-scale aircraft, if you haven't already done so, this is where you want to get your flaps and gear down and start slowing for landing. The same thing applies to our model aircraft. How much power to use depends on the aircraft, but I usually cut power to roughly one half during

the downwind leg and when on final, I cut it even more and then cut to idle at touchdown (assuming I haven't bounced). If you find yourself in a bad bouncing situation, feed in power and make that go-around. (My buddies will tell you I have been known to bounce pretty high but don't listen to them.)

So here's my advice to the newbie:

1. Make your downwind leg parallel to the runway.
2. Keep the downwind leg as low as practical for your airport. 100 feet is good.
3. Begin slowing down during the downwind leg.
4. If you have to dive to land, you're too high and/or too fast.
5. Teach yourself to automatically go around if you mess up the approach.
6. Work that throttle continually during your landing, using power as needed.
7. Visualize a railway track in the sky and stay on the track. Downwind, base, and final. →

Tips & Tricks

Airplane Cleaner

- 5 cups hot water
- ½ cup ammonia
- 1 cup rubbing alcohol
- 1 oz. of Dawn dish detergent

Mix all the ingredients in a clean milk jug; pour enough

into a small spray bottle for field use. This solution cuts through the old buildup on the underside of your airplane, and leaves it squeaky clean.

Caution: Dawn seems to be the only dish detergent that cuts through the oils and does not leave a residue on the model.

—From the Utah Valley Aeromodelers, Lehi UT

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diameter. Fit the tubing into a pencil-type soldering iron.

Mark the locations of the rivets on the model. Heat up the soldering iron and press the sharpened brass tubing squarely into the model at the appropriate location.

A screw head can be replicated using the aforementioned method. Use an X-Acto knife with the tip broken off and sharpened to replicate the screwdriver point. Heat up the X-Acto blade and press it into the center of the flush rivet to

create a screwdriver point.

Hinges: Non-functional piano hinges can be replicated using plastic rod or tubing. Plastruct markets small, plastic shapes for model building. They are available at most hobby shops. Choose a plastic rod or tube that matches the hinge diameter. Mark on a piece of paper the length of the piano hinge segments for the hinge you want to replicate. Place the plastic piece on the paper over the marks. Place an X-Acto knife on the piece at the

hinge segment location. Roll the piece with the blade, marking the segment around the piece's diameter. Cut to length and glue to the model.

Conclusion: There are many ways to develop this kind of scale detail, and the methods described here are but one way. If you are unfamiliar with how to produce such details, give these methods a try. The longer you use them, the more variances you will make until you are doing it your way. →

Nominations Due for Vice Presidents in Districts II, IV, VI, VIII, and X

The Academy of Model Aeronautics, Muncie IN

Nominations for the offices of vice presidents in Districts II, IV, VI, VIII, and X are due at the Headquarters of the Academy of Model Aeronautics by June 23, 2012. Any AMA Open Member may submit a nomination.

A special election for District III will run concurrently with the 2012 elections.

To be eligible to discharge the duties of AMA vice president, a nominee must be a Leader Member of the Academy and must reside in the district.

(Nominees and nominators will be notified by AMA Headquarters confirming receipt of nomination. If confirmation is not received within two weeks after you have mailed your document, contact Lisa Johnson at [765] 287-1256, extension 231.)

A letter of acceptance and a résumé of professional qualifications and model aviation experience from the nominee must be on file at AMA Headquarters by July 6, 2012, 15 days before to the published meeting.

Nominating Procedure Document

Relating to Article IX

Approved November 1, 2003

Candidate Guidelines:

- (a) No person may nominate himself/herself for office.
- (b) No person shall simultaneously hold two positions on the Executive Council. In the event a person holding an office is elected or selected to a second position on the Executive Council, that person must choose which of the two positions he/she

will continue, such decision to be made within 48 hours of the announcement of the selection, or else the person so affected will be deemed to have selected to remain in the first office held.

(c) Incumbent is automatically placed on the ballot, provided that he/she has been properly nominated and accepted, except that a $\frac{3}{4}$ vote against may withhold the incumbent's name from the ballot (see Bylaws, Article IX, Section 2).

(d) All nomination letters must be received at AMA Headquarters thirty (30) days prior to the convening of the Nominating Committee's Annual Meeting. If received by electronic mail or fax, it must be received by close of that business day at AMA Headquarters, Muncie IN.

(e) Candidate must be a legal resident of the district in which the election is being held; this does not apply to the office of President or Executive Vice President.

(f) Candidate must be a current AMA member with Leader Member status (other qualifications apply to the office of President and Executive Vice President, Article IX, section 3).

(g) No person elected to and serving as an active member of the Executive Council shall be paid for any regular column or article in *Model Aviation* magazine. Exception may be made for such articles as the coverage of special events provided prior arrangement was made for said article. Articles and columns printed in the "AMA News" section are not paid contributions. No paid columns may be submitted after the individual has been placed on the ballot.

It is strongly recommended that nominations be mailed by certified mail, receipt requested.

Candidate Acceptance:

(a) A letter of acceptance by the candidate must be on file at AMA Headquarters 15 days prior to the meeting; if by electronic mail or fax it must be received by close of that business day at AMA Headquarters, Muncie IN.

(b) Along with a résumé of professional qualifications and model aviation experience, your résumé should include, but not be limited to, the following areas of consideration. *(Note: Campaign Statements to be delivered to AMA Headquarters 10 days prior to the Nominating Committee meeting in a sealed envelope. Those not nominated will have his or her statement returned unopened. Campaign Statements will remain sealed until after the Nominating Committee has deliberated and determined the candidates.)*

Adopted January 2008

1. Management experience.
2. Financial background.
3. Insurance employment and/or expertise.
4. Legal background.
5. Technical background, including areas of aeronautics, electronics (especially in radio frequency propagation and usage), acoustics (as related to noise studies and analysis), and other areas of engineering.
6. Aeromodeling background must be noted. The individual will be required, if elected to national office, to deal with questions related to all areas of aeromodeling and should have a broad-based background.

It is strongly recommended that these documents be mailed certified, receipt requested. →

CONTACT US

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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.

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