

PRESIDENT TO PRESIDENT

Know Your Lease Restrictions

Contact Mark at ama.mtsmith@gmail.com

Mark Smith, AMA Executive Vice President

Hi fellow officers! I have been a member of AMA's Insurance Committee for several years and we recently held a meeting in Muncie, Indiana. One item that came up that I thought may be of particular interest to you, concerns our flying sites that are on landfills. Apparently, when landfills are abandoned, the authorities put a heavy liner over the trash to keep the landfill contents from seeping into the groundwater. This is then all covered by dirt, which in turn creates the flying site.

Department of Natural Resources.

The club contacted us and unfortunately, we have no coverage for pollution. We checked into the rates and—are you ready for this—the premium is, at a minimum, \$5,000 a year per club!

A club contacted us about a problem it encountered when the members set fence posts on their flying site that (and you guessed it) was a landfill many years ago. They nearly broke the landfill liner which has now become an issue with the

So, here's the lesson learned that I would like to pass on to you. Please make sure your current club officers are fully aware of any restrictions in your flying site lease. Additionally, if you are on land that is leased from anyone, please do not make any alterations to the site without obtaining the landowner's permission. Your AMA staff is here to help guide you should you have any questions.

That's it for this month. Please keep in touch and have fun! →

CLUB CORNER

Sharing is Caring

Contact Jim at sjwallen@tde.com

Jim Wallen, Insider Club Column Editor

There is strength in improved relationships. In the last several months I have had several AMA clubs contact me with some ideas about sharing. Maybe some of these events might pique your interest about how you can improve relationships between some of your local clubs. Keep in mind that numerous members maintain membership in more than one club!

to each other for no apparent reason. There may have been some reason in the past that has long been forgotten. How about having a club officer visit some other local clubs to improve relationships and mend an old wound perhaps.

- Recently there have been serious flooding issues in several areas of our country. There have been dozens of examples of local clubs sharing their flying sites with those who have been less fortunate and experienced serious flood damage. Free and reduced memberships have been offered by clubs to others who have been less fortunate and that has helped create a bond that is probably durable. I am sure there are other less serious disasters that could benefit from this type of interclub camaraderie.
- On more than one occasion I have seen members of two clubs refuse to speak

- Round up a few clubs in your area and have a fun-fly with some hot dogs on the grill. What a great opportunity to build relationships and meet some new folks.
- How about having an interclub breakfast quarterly to help cement some relationships? You can discuss each other's schedules as well as other issues the clubs may have in common.
- Each club has some key events during the year that other local clubs can enjoy. Help support other clubs key events and they will probably do the same for you.

I am sure there are numerous examples other than these that add to the enjoyment of our hobby. Take a little time to think about it and see if there is something that makes sense for your club. →

SEPTEMBER 2011 CONTENTS

PRESIDENT TO PRESIDENT pg 1

CLUB CORNER pg 1

ON THE SAFE SIDE pg 2

LEADER TO LEADER pg 3

EDITOR'S PICKS

Scale Plans Building for the Novice:

 Part 2 pg 4

75th Anniversary Club Newsletter

 Contest pg 7

 Tips & Tricks pg 7



Airplane Restraints

Jim Tiller, *Insider Safety Column Editor*

Contact Jim at jtiller@hotmail.com

With this safety column I'd like to stimulate a review of your club's existing engine start procedures with an eye toward airplane restraints. At nearly all of the club sites I have visited, there is some type of apparatus for holding the airplane while starting the engine. It can be anything from a stake and a dog leash to specially designed tables. The most important issue is that your flying site does provide and maintain these important safety items.

In the August 2002 issue of *Model Aviation*, there were plans for a sturdy bench for starting airplanes. Many clubs have built one or more of these. The original design came from the Meroke Radio Control Club in Merrick, New York. If you want to download the original bench plan, a list of materials, or see many simple modifications and improvements, go to the club website: www.meroke.com/safetybench.htm.

These tables get your airplanes up to a more convenient height but the biggest asset is their inherent contribution to safe starting procedures.

My local club built eight of these tables years ago and we feel they have been an invaluable investment. We had a member donate the materials for a couple. The club put up the money for the rest. We built some bigger and some smaller to accommodate airplanes of varying sizes. We only had one problem with our tables. Since we live here in the Outback of the US, we had to modify the base to widen the stance. The originals kept blowing over in our South Dakota wind. Here's our table design:



I think you can see in the picture that the table is well used, aged, but still serviceable.

There is a 1/4-scale table with shortened legs shown on the Meroke website. However, many large airplane enthusiasts either find the tables too small or prefer to start their airplanes on the ground. Once again, you will find many ingenious restraint devices. Search the Web for tail restraints and you'll find several commercial offerings.

There are also many clever homemade airplane holders. At our field, one of the guys fabricated a simple but effective tail restraint that works very well.



It has a large metal stake that anchors it to the ground. The uprights have hinges on the bottom, so it is a simple matter of unhooking the bungee cord to drop the restraint to the sides.

There is some discussion about how safe tail restraints are compared to wing restraints. Some say the tails of certain airplanes are quite fragile. I don't have a definitive answer, but I'm sure the wings on most airplanes are more securely attached than the tail. If you want to go with wing restraints rather than tail restraints in a ground apparatus, here's an idea:



In this design, metal pipes are driven in the ground and the two uprights fit down into those openings. To release the airplane, just pull them up, or drag the model backward.

If you are lacking in metal working and welding skills, here's a tail restraint made largely of wood:



The base is made of hardwood. A steel spike fits through the middle opening and into the ground. The uprights could be substantial dowels for smaller airplanes or metal rods.

Airplane restraints are a safety device your club should not be without. However, it is just as important to have an assistant at engine start. We have all heard stories about what can happen if an airplane gets away from you—and only a few have happy endings. Plus, it is just common courtesy to offer to help a fellow modeler with his engine start and taxi. The pilot's focus should be on the airplane, radio, and engine. Help him with the other tasks at hand. There is no substitute for a second pair of hands and eyes while you start and fly your airplane.

With large airplanes, it is important for the airplane holder to know how to properly restrain the aircraft. In my flying group, the consensus is that you should hold the wing and the fuselage as shown here:



please see
Airplane Restraints

... on page 7

Changes to the Leader Member Program

Contact Rusty at rustylm@verizon.net

Rusty Kennedy, Chairman Leader Member Program Development Committee

Excitement is the word that comes to mind when describing the 75th year of the Academy of Model Aeronautics. The Nats, F3A World Championship, 75th Diamond Anniversary Gala, IRCHA Jamboree, and so much more has been happening at the International Aeromodeling Center (IAC).

Leader Members (LM) should be excited too. LMs are going to become more than just the highest level of membership. For the first time in many years the EC has approved two new LM categories. They are Flight and Educational.

In the past LM titles were awarded for an achievement in the world of model aviation. The AMA member made a contribution related to model aviation in the Industry, Scientific or Administrative fields and they were recognized as an LM and this method of award will not change. Although many thought LMs would have further responsibilities besides voting to ratify proposed by law changes, this was never the case. Remember it is an awarded title for past accomplishment and there was never any expectation for LM to do anything else.

How will these new categories be different? Well, the major difference is with these new categories there will be a commitment by the LM to assist AMA at the local club level. A recent LM member survey revealed many LMs wish to help AMA improve and grow. They will now have the opportunity. The basics of Flight and Educational are listed below:

Flight

- AMA Intro Pilot
- Club Flight Instructor
- Ability to build and fly a model aircraft
- Other, as recognized by District VP

Educational

- Club education program leader
- NASA/CAP/EAA club liaison, instructor
- Author, writer of significant education material
- Professional educator
- Other, as recognized by District VP

Leader Member Duties

- Liaison to local non-club AMA members
- Welcome, assist new AMA members
- Educating local clubs and members on the benefits of AMA membership
- Branding: Assist clubs in identifying themselves as AMA Clubs through the use of signage, flag, windsock, website, etc...

Leader Member Selection Criteria

- An AMA OPEN member for three years or more
- Passes a short, open-book test, like CD's
- Consistent record of leadership and volunteering
- Email is required

AMA is looking for LMs who want to volunteer their time and talents at the local club level, becoming the local AMA guy or gal who knows how to answer AMA related matters or knows how to get them.

After being appointed as a Flight or Educational LM he or she will serve an initial three-year period. At the end of three years the LM will be sent a self-evaluation via email. (Having email will be a must to stay informed. It is not cost effective or timely to complete tasks by US Mail.) The LM completes the self-evaluation and returns it and his or her LM status is renewed another three years.

If after a second notice the self-evaluation is not returned the member will lose his Flight and/or Educational LM status. It will not affect the older awarded titles. For example, if an Administrative LM applies for Flight LM status and after the three-year period does not return the self-evaluation, he will lose the Flight status but will always retain the Administrative title.

Let's be clear, if you are an Industry, Scientific or Administrative LM now or in the future: you will always retain that title so long as you remain an AMA member in good standings as per AMA Bylaws.

What happens after a three-year period and your status is renewed but you elect to retire from active Flight or Educational LM service at a future date? I have proposed that the LMs' status be changed to Administrative. In effect, award LM Administrative for their LM service to AMA. The reason for this is to recognize the LMs' efforts and have an active up-to-date Flight and Educational LM program.

Of course we can't predict all the "what ifs" so some issues will be handled on a case-by-case basis with the appropriate District VP having final authority.

Soon there will be a new online Leader Member application and you will notice that the \$10 transfer fee has been eliminated.

And look forward to an upgraded Leader Member section of the AMA website coming in early September that will provide lots of background, resources, and answers to frequently asked questions regarding the LM program.

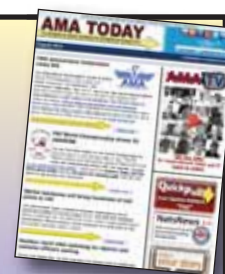
Should you want to comment or ask questions, my email is: rustylm@verizon.net. →



**TODAY'S THE DAY TO SIGN UP
FOR AMA TODAY!**

Follow the link below to sign up!

www.modelaircraft.org/publications/AMA_Today.aspx



Scale Plans Building for the Novice: Part 2

Jerry Bates

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

Tools Required for Cutting it Yourself

If you choose to cut out the parts yourself there are a few tools and techniques that will make the experience a more agreeable task. All of these tools mentioned have value outside of this hobby because they can be used for other projects around the house too. The primary power tools needed are:

- A ¼-inch electric drill with drill bits from 1/16-inch diameter to ¼ inch. \$25+
- A small electric scroll saw and selection of blades. \$80 to \$200
- A combination disc and belt sander. \$80 to \$150
- A handheld rotary tool. \$40+

Power Tools

First thing to do after buying a power tool is to read all the literature provided before setting it up and turning it on. It is much better to be bored with the details than to take a trip to the emergency room. Safety first—fun later!

Most of us already have an electric drill so we won't take any time with that item.

The electric scroll saw is one of the hobby's most valuable tools and is a "must have" for any level above ARF's. There are several quality scroll saws on the market. Perhaps the most noteworthy are the Dremel products. Check out the Lowe's or Home Depot stores for this and other manufacturers. You will be using the scroll saw to cut out all your major parts like ribs and formers. Look for a saw with a minimum 12-inch distance from the back of the blade to the neck; more is better. Some scroll saws include a small circular sander attached to the side. These sanders are good for small parts but are not quite large enough for items like ribs and large formers.

The combination belt and disc sander will be used to smooth out the parts you cut with the scroll saw. The same stores mentioned above will be your first stop for shopping this tool. Look for a tool with a 4-inch-wide belt and a 6-inch-diameter disc. We will get into its use a little later.

Another handy tool is the handheld rotary tool. They are available with myriad attachments and bits. My two favorites are the carbide ball-and-drum sanders and the large-diameter fiber-reinforced, cut-off wheels produced by Robart and available from Tower Hobbies. The carbide sanders are great for hollowing out balsa blocks and trimming the insides of the fuselage formers to reduce weight of the model. The cut-off wheel is great for cutting music wire and trimming hard to reach parts. You will find so many other uses for it you won't know how you did without it. My two favorite brands are Dremel and Ryobi. Check the previously mentioned stores for pricing and availability.

After you have been building from plans for a while you will want to acquire a band saw. A 9-inch tabletop, two-wheel unit

will be just fine for our type of work. Don't bother with a discount priced three-wheel unit. The wheels of a three-wheel unit are too small and exert too much force on the thin blades. They have a habit of breaking very easily and always in the middle of a cut. You will be using the band saw for your outside cuts and the scroll saw for your inside cuts. Check the previously mentioned stores and Sears for several good band saws in the \$100-price range.

Hand Tools

There are several hand tools that you will need when cutting out and constructing your model. The most common among these is the "hobby knife" or X-Acto knife. You will need what is called a #1 handle and #11 blades. Tower Hobbies has a great selection from the basic knife to a three-knife set to fit the full range of available blades. Remember: like all knives, never cut toward yourself. If you are cutting against a straightedge, use a metal straightedge and keep your fingers well away from the cutting edge. Another important tip when using the hobby knife is to replace the blades often. Pressing down with a dull blade and dragging it through the wood is an open invitation to disaster.

Okay, a couple of other safety tips: if you drop the knife, back away from the table quickly. Never try to catch it. These knives have an uncanny way of hiding under things on the worktable and rolling off the table to stick in your foot. To alleviate the problem I put a pencil eraser cap on the end of the knife.

Other important items are sanding blocks and sanding paper. You can make your sanding blocks from various sizes of 1-inch x 3-inch and 2- x 4-inch wood and cover them with sanding papers cut to suit. A better method is to have an assortment of the aluminum sanding bars available from Tower Hobbies. They also sell sticky-back sanding papers to fit.

A couple of metal straightedges for cutting straight lines with your hobby knife will be a big aide as well. I like to have a 12-inch and 18-inch long one available. Most office supply stores sell cork-backed stainless steel rulers that are perfect for this use. Again, keep your fingertips back from the cutting edge when in use.

A builder just cannot have enough clamps to hold things together. There are numerous kinds and sizes of clamps available in hardware stores. You may wish to purchase these at a later date, but for now let me suggest some more economical solutions. You will find that wooden clothes pins can be used for areas of model construction. Also, a collection of various sizes of rubber bands will be useful.

Another item you can't have too many of is pins. Regular straight pins will work fine but "T" pins sold by hobby suppliers have the advantages of being easier to push in place and remove after use. A box of each of the three sizes offered by Hobbico and available from Tower Hobbies should do the job.

please see

Scale Plans Building ... on page 5

Scale Plans Building

continued from page 4

Workbench

You will need a work area to build your model. Most important will be a table or bench where you can leave your project laid out during construction. This can be anything from a custom-built workbench to a folding table. Your work surface must be smooth, flat, and warp free or you will build these misalignments into your model.

A simple workbench can be made from a 36-inch wide, flush face, solid core, wood door. You can support it with sawhorses or a frame and legs fabricated from 2 x 4s. Give the surface several coats of polyurethane paint to make clean-ups easier. You will need to prepare the surface so you can pin to it. I found a sheet of 1/2-inch by 4-foot by 8-foot sound deadening-board (Hushboard by Georgia-Pacific) at the local building supply store that has worked great. Cut it to the size of your worktable and hold it in place with small finishing nails on about 12-inch centers around the perimeter. I painted the surface of mine with a couple of coats of white exterior latex house paint.

Laying Out the Plans

Lay your plans on the work surface and hold them in place with thumbtacks at the corners. You should cover your plans with something transparent that glue will not stick to. The old method was to use waxed paper. Unfortunately, the new waxed papers are no longer very resistant to the glues we use. A better material is the clear plastic paint drop cloths available at hardware stores.

Adhesives and Solvents

There are literally hundreds of various adhesives on the market. It can be very confusing trying to find the right product for use in modeling. We require adhesives that are both strong and light. Most adhesives for household use are not appropriate for model construction. To be on the safe side it is best to purchase them from a hobby shop or hobby supply house. Even at that, there are still many choices to make. To avoid some of the confusion, we will use just three types of adhesives, and only one kind of each for this article. Once you become familiar with the benefits and

drawbacks of the available alternatives you can use your judgment in selecting your favorites. The adhesives mentioned below are available from Tower Hobbies.

Selected Adhesives and Solvent:

- **Epoxy:** We will be using a two-part epoxy adhesive for those areas that require a very structurally sound joining of parts like the firewall. We will use what is called 30-minute epoxy. It will provide sufficient working time to allow the parts to be aligned and clamped in place before setup. Choice: Pacer Z-Poxy, 30-Minute 8 oz.
- **Cyanoacrylate:** Generically called “super glue” or “CA” glue, this will be our primary construction adhesive. CA is available in several viscosities but we will be using what is termed as “medium” or gap-filling CA. Choice: Pacer Zap-A-Gap CA+ 2 oz.
- **Aliphatic Resin:** This glue is generically known as “white glue” but the glues provided by the hobby supplier have additional characteristics for greater strength and are lighter and easy to sand. We will be using this adhesive for joining sheets of balsa and planking to the airframe. Choice: Great Planes Pro Wood Glue 4 oz.
- **Spray adhesive:** You will be using this product to attach portions of you plans to the wood and pieces of wood together temporarily to cut out the parts for you model. My favorite is 3M 75 Repositionable Adhesive.
- **Solvent:** A general solvent for use in cleanup of epoxy, CA, and the spray adhesive is acetone. It is available from Lowe’s or Home Depot. Aliphatic resin can be cleaned up with a damp cloth before it dries.

Safety

Safety precautions should be taken when using any of the previously mentioned products. If you experience a physical reaction to any of them you should discontinue their use immediately. If you have a reaction from using CA or epoxies you can substitute aliphatic resin glues. For areas requiring a stronger joint I would use high-strength aliphatic resin glue. Just be sure to clamp the parts together like in the firewall areas to ensure a secure joint. I would suggest using Titebond III Ultimate Wood Glue in these areas.

Fillers and Primer

Materials for filling voids and making fillets for you model are available in several types and used for various applications. Some of these fillers have structural characteristics and others are used to provide a smooth surface in preparation for priming and painting the model.

Hangar Rash

During construction your model will receive “hangar rash.” That is a term used to describe the dents and dings the airframe receives in the shop (hangar). Simply dampening the dent with water and applying heat to the dent with an iron can remove most hangar rash. Set the iron on high or “cotton.” The steam produced by the application of the iron will raise the wood fibers and remove most dents.

Follow up by sanding the repair lightly with a sanding block to bring it level with the surrounding area. If the wood fibers in the dented area have been broken (these are called “gouges”) you will not be able to completely remove the dent with this process and it will need to be filled and sanded.

Gouges

To repair gouges and voids in the airframe I recommend a lightweight filler-putty like Hobbico HobbyLite Balsa Colored Filler available from Tower Hobbies. The same product may be used to fill voids in strip-planked areas also. The product is also good for making small fillets like where the fin and stabilizer meet with the fuselage. Use this, or a similar product, for all general repair work on the airframe prior to priming and painting.

Structural Fillers

Structural fillers are used in areas to fill voids and produce fillets to increase strength of a joint. Some of the areas can be around the firewall or in the areas for retract installation.

A mixture of epoxy and a special filler compound may be used. I recommend Great Planes Milled Fiberglass or Prather Micro Balloons mixed with 30-minute epoxy for this application.

please see

Scale Plans Building ... on page 6

Scale Plans Building continued from page 5

General Fillers

A great filler for things such as a wing fillets and large fillets for the fin and stabilizer is lightweight automotive body putty. Stay away from the products sold in hardware stores. These are normally general-purpose fillers and are very heavy and hard to sand. The best product I have found is Evercoat Rage Gold. It is very light and sands almost as easily as balsa. Check with an automotive paint store for availability. Use this product on your model after you have glassed it and before the first application of primer.

Base Primer

I like to use acrylic lacquer primer on my models. It is light and sands very easily. My favorite is DuPont 30S gray primer available from automotive paint stores. This primer is compatible with the widest range of finishes for your model including, dope, lacquer, urethane, enamel, and epoxy. Do not use the spray can primers found in hardware stores and do not use enamel-based primers. I use a compressor and spray gun for application. Most automobile paint stores have the acrylic lacquer primer in spray cans.

Spot Putty

After you have primed and sanded your model for the first time you will inevitably find some low spots. If you have primed with automotive acrylic lacquer primer, you can use lacquer-based non-shrinking spot repair putty for these areas. They are also available from automotive paint stores.

Cutting Out Your Model

There are a lot of sophisticated methods used by professionals to cut out these parts. Some shops make templates of the parts for reuse so they can make parts in the future. Some of the methods used include handheld and CNC routers, special equipment for cutting notches and other repetitive cuts, and laser cutting. We are going to discuss basic methods for use in the home workshop.

This is going to sound like a lot of work but actually it is not. It just takes a lot of words to describe the processes involved. These processes will become more like a fluid motion after you get the hang of them.

Procedures

1. The first to do is cut out the parts from the plans with a pair of scissors. If you do not wish to cut out your plans then have a Xerox copy made of these parts. Stay about $\frac{1}{8}$ inch outside of the part outline when cutting them out. Do not cut out the holes inside the parts or the notches in the parts for stringers, etc. Use a felt tip pen to make certain the part numbers are on the paper parts. Place all the paper parts in a container like a shoebox so they don't get misplaced.
2. Now we will affix the paper patterns to the wood. Let's start with the balsa wood ribs. We will assume the ribs are $\frac{3}{32}$ -inch thick balsa and the wing requires two of each rib. Lay out the patterns on a sheet of $\frac{3}{32}$ -inch by 3-inch by 36-inch balsa. For large models you may need four-inch

wide by 48-inch long balsa to get the parts to fit. You may even need several sheets of balsa for all the ribs. Shuffle the patterns around until you get as many to fit on the wood as you can with little waste. Keep a minimum of a quarter inch between each part. After establishing the layout you can affix the patterns to the wood with the 3M 75 adhesive. Never use 3M 77 adhesive for this process as you may not get the patterns and stacked wood apart. Spray a medium coat of adhesive on the back of the pattern and apply to the wood surface.

3. Affix another sheet of balsa to the back of the one with the rib patterns. Apply a light coat of 3M 75 adhesive to the face of each sheet of balsa. Wait about 30 seconds, then, stack the balsa sheets, adhesive face to adhesive face, together. Lay the sheets on a smooth, flat surface, and apply medium pressure to them to ensure they are firmly stuck together. Use a piece of 2 x 4 to do this. Do not press too hard or you will distort the soft wood.
4. If you are doing a straight-wing model like a Cub where you will need multiple ribs of the same size, you can cut the balsa sheet to the required length and stack them for multiple cutting. Do not cut more than six ribs at one time. Make several copies of the pattern and cut several stacks of ribs. The reason for doing this is because of the equipment we are using. The scroll saw blade is very small and flexible. As the stack of wood gets taller, it will become more difficult to cut a stack where all ribs are the same size.
5. Cut the individual parts out of the sheet. You may need to separate the parts into smaller groups or individual ribs that will fit the size of your scroll saw. Use your X-Acto knife for this. Drill a $\frac{1}{4}$ -inch diameter hole through the part in the center of the area(s) that need to be removed like lightening holes, etc. Drill slowly with a sharp bit to avoid making a mess of the part. Place a piece of pine wood beneath the part and press the part firmly against the wood when drilling. A brad point bit is best for this job. Clean up the areas around the holes after drilling to maintain a smooth surface where the part is to be placed on the scroll saw table.
6. Next job is to cut out the areas to be removed inside of the individual parts. Remove the upper end of the scroll saw blade and slip the part over the blade, through the drilled hole, pattern side up. Reconnect the blade and you are ready to cut out that area. Cut slowly from the hole toward the line on the pattern then follow the line all the way around. You may need to cut the area out in sections to avoid interference with the scroll saw neck. Remove the part and cut out the remaining internal areas in a similar manner.
7. Next we will cut around the external part lines. You do not need to stay very close to the outline. I like to stay from $\frac{1}{32}$ inch to $\frac{1}{16}$ inch toward the outside of the outline. Don't cut out the notches in the parts yet either.
8. Now we have all the ribs cut out. Next job is to sand them to shape. We will use the 6-inch disc sander for this. Make sure the sanding table and the disc sander are 90° to one another. Place the stacked ribs on the sanding table and

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

75th 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 75th 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 75th Anniversary. Clubs can find resources/information for their newsletters by visiting 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 75th
contest.

Good luck! →



Scale Plans Building

continued from page 6

slowly sand them to the edge of the lines on the pattern. This makes for a much smoother part than can be cut on the scroll saw.

9. Next we go back to the scroll saw and cut out the notches in the perimeter of the rib pattern outline. Carefully make plunge cuts on each side of the notch.

You can remove the remaining wood in the notch by making a few plunge cuts between the first two and using the scroll saw blade like a sander by moving the part back and forth until you have cleaned it up to the bottom of the notch. Check the cut out notch for fit with the intended size spar or stinger.

10. Peel the pattern off the part, and separate the parts. Mark the parts with the numbers shown on the plans and place them in a box to keep them all together.
11. Fuselage formers are cut out using the same method used for the ribs. Cutting the plywood parts will require use of a blade designed for plywood and hardwood.
Try to cut close to the outline of the aircraft ply or birch ply parts to keep the amount of sanding needed to bring the part to finished outline to a minimum. A small square or draftsman angle template can be used to check parts like the firewall for accurate 90° corners.

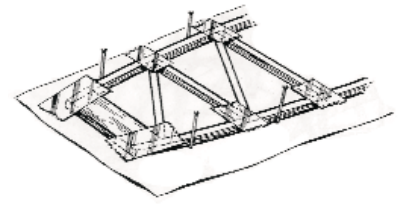
Conclusion

Your level of skills will increase rapidly during this process of cutting out the parts. You will develop methods and shortcuts to make this work faster and easier. You will become familiar with the use of the tools, their advantages and drawbacks for accomplishing certain tasks, and how additional tools can help in making the tasks easier.

You now have the hard work out of the way so we will move on to the lighter subjects.

Stay tuned for "Part 3: Building Your Model" in the November 2011 *AMA Insider*. →

Tips & Tricks



The usual technique of building two identical sides by building one above the other usually results in the sides requiring careful separation with a razor blade. This can be eliminated by placing pieces of Scotch Magic Mending Tape over each glue joint, thus preventing the second side from adhering to the first.

—Ken Simpson, Cedarburg, Wisconsin

Airplane Restraints

continued from page 2

I don't think there is anything wrong with straddling the tail with your feet and holding the airplane between your legs, but it goes back to the tail restraint vs. wing restraint question. The wing is a stronger structural member.

Airplane restraints are not just for gas and glow airplanes. Electric airplanes should not be left unattended while they are being armed. I know most ESCs have an arming circuit designed to prevent accidental starts. Guns have a safety too, but all hunter safety courses teach you not to depend on it. The same should be true for us. An airplane restraint or a two-person starting procedure should be in place for electric operation as well.

Don't forget that all your engine tuning, removing the glow starter, etc., should be done from behind the propeller and not over it. But that's probably another column.

Hopefully I have been singing to the choir here and your club already has a structured engine start procedure already in place. If you do, review it and consider changes that might make it easier and safer. If not, use this as an incentive to create one. →

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.

Every effort is made to ensure that the information contained herein is accurate; however the Academy of Model Aeronautics is not responsible for errors or omissions. All articles are assumed to be original works authored by club members unless otherwise noted in the AMA *INSIDER*. On such noted occasions, the Academy of Model Aeronautics has been granted permission to reprint the copyrighted material.

No responsibility is assumed, expressed, or implied by the Academy of Model Aeronautics as to suitability, safety, or approval of any material in this newsletter. Any person attempting an action described herein does so at his/her own risk without recourse against the Academy of Model Aeronautics.

Permission is granted to redistribute material found herein given that proper attribution accompanies the article. Proper attribution is defined as the original author's name and title (if given) and the name of the originating club or organization. In the event that an original author is unknown, the editor of the newsletter is a suitable substitution.

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
(765) 287-1256, ext. 228

Advisor:

Liz Helms, lhelms@modelaircraft.org

Director of Publications:

Rob Kurek, 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

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

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

*All reprinted articles become the property of the Academy of Model Aeronautics.



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