



PRESIDENT TO PRESIDENT

AMA Membership

I HAVE RECEIVED several E-mails from members who are concerned that AMA lost some of its membership base last year, and proposed that reversing this trend should be the first priority for the organization. Perhaps they are right, but I will point out a few mitigating facts.

AMA should serve its members in their pursuit of enjoying model aviation. The size of the organization will have an effect on AMA's ability to do that. The larger the membership, the more effective it can be in furthering the goals of its members.

If one person in every five were a modeler, then society would automatically provide modelers with frequencies, flying sites, and probably anything else the sport needed. Actually, we would be "society."

With roughly 250 million people in the United States, one in five would mean that modelers would number roughly 50 million. One in 50 would mean 5 million modelers. Obviously, any number approaching that is inconceivable, but the idea that increasing our numbers would be beneficial to our access to facilities isn't lost on us.

Unfortunately, growth isn't a priority for many of our members. In fact, it is opposed by a number of them who view growth as reducing their access to already overtaxed facilities. Although a few clubs are actively recruiting members in an attempt to grow, some clubs are hampered by too much activity that overwhelms their flying sites. It is becoming an increasing trend for clubs to close their gates and limit their membership to a fixed number.

Ironically, some of those clubs that closed membership and at one time had a waiting list are finding themselves with declining numbers. Often, these rules are driven by a handful of people who are accustomed to the days when they could fly without delay because of others at the field.

Often the actual flying done at the field isn't all that much, but it might be heavy on an occasional weekend day. In some people's minds, that warrants limiting the club's membership. The club often shrinks in the end, removing any such concern.

Perhaps there is a better way. One

alternative might be to have two "classes" of club membership as an alternative to an absolute limit. If your club is limiting its membership to 60, then you allow 60 "class A" memberships, but have no limit on the number of "class B" members. As class A members drop out, the class B members are elevated in the order in which they joined.

Anytime the flying field becomes crowded--the club can decide how many fliers at the field meets that threshold--the class A members have first rights to the frequency pins.

Dues? Well, class As could pay the full rate and class Bs a slightly reduced rate. Some of the Tuesday-night crowd may even want to be a class B member, if the dues were cheaper.

The additional labor available for club projects wouldn't hurt, and the added money in the treasury would allow for more field improvements. This sounds better than a specific limit on the membership.

please see **President...** on page 8

TIPS FOR CLUBS

From the Rockland County Radio Control Club, Nanuet, New York

Certification for Solo Flight

Are some of your club members students waiting to receive the okay for unsupervised solo flight? The Rockland County Radio Control Club has created its own "checklist" to certify its members for solo flight.

Your club can use this checklist to assure your students possess the knowledge, ability, and safety for independent flying at your club site.

To be qualified for unsupervised solo flight, the student must have knowledge of and demonstrate the ability to do the following:

1. Field Safety Rules
2. Impound Area and Frequency Control
3. Assemble and Test Aircraft
4. Start Engine and Tune
5. Perform Flight Maneuvers:
 - A. Start and Taxi
 - B. Take Off - (from flight station)
Right to Left and Left to Right (Demonstrate ability to take off in either direction according to wind direction)
 - C. Trim Aircraft for Straight & Level Flight
 - D. Fly Rectangle Pattern

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From the Pine Barren Modelers, Barnegat, New Jersey

Water Can Be Dangerous

by Bill Bowne

Water is wonderful stuff. Without it, we wouldn't have life as we know it. But, water can be dangerous too. Oh, I'm not talking about drowning in it, I'm talking about what happens when water evaporates and recondenses in midair. I'm talking about what can lead to thunderstorms and lightning.

You see, water is great at absorbing heat. That's why it takes so long to boil water. Water stores a lot of heat in it when it is evaporated. When water evaporates, it turns into a gas, making the parcel of air it's in moister. To turn it back into water, all you need to do is cool that parcel of air, either by expanding it or by moving it to where the temperature is less. The easiest way to do both is by lifting the parcel of air to a higher altitude, where the temperature and pressure are lower.

There are several ways to start the moist air on its upward trek. It can be forced upwards by an advancing cold front, by being blown against a hill (like the hill our site is on)

or by being heated by the sun until it expands and rises like a balloon. The first is more common in spring and fall, whilst the latter two are more common in the summertime.

When some of the water in the air cools enough return to a liquid state, it releases the heat that had evaporated it, warming the air around it. If the air surrounding that parcel of air is cooler than the parcel, the parcel will keep rising, expanding, and cooling, and water will keep condensing and warming the air.

Eventually, the parcel will either run out of water vapor or else it'll reach a level where it's no longer warmer than the surrounding air. If the parcel tops out shortly after condensation starts, then we get some nice, puffy cumulus clouds. Those are the little cotton balls that often show up in the middle of a summer's day. But, if the parcel keeps growing and is joined by other parcels, eventually the moisture that has condensed will grow until droplets form.

Those droplets can then combine and grow until they become too heavy for the rising air to keep them up. So, they fall as raindrops.

That's still not too bad. We need rain. Without it, balsa wouldn't grow, and where would the hobby be without balsa (You foamy fliers, just be quiet!)? It isn't much fun to fly in rain, but we can put up with some light showers. The problems start when the rising parcels get high enough to form ice crystals. You can tell that's happening when the puffy cloud

starts to spread out and form a classic anvil shape. When the ice crystals form, the cloud starts to develop areas of different electrical charge (Exactly how is still a mystery argued over by a multitude of meteorologists and their grad students). This is when we start seeing flashes within the clouds, as charges try to equalize each other within the cloud.

Meanwhile, as the electrical charges grow in the cloud, a similar (but opposite) charge starts to form in sort of a "shadow" on the ground below. That "shadow" will follow the cloud as the cloud drifts along.

The big problems start when the charges in the cloud and the "shadow" on the ground start reaching feelers towards each other. You see, air is a wonderful insulator, so it takes a strong charge difference between the cloud and the ground before the air

separating the two charges can be bridged. So, when the bridge is made, the spark is a big, powerful flood of

electricity, not a little seepage. That's the big spark of cloud to ground lightning. The lightning stroke can travel miles through the air to find an opposite charge. It can strike, literally, miles away from the nearest storm and can hit in areas where the rain hasn't even started or has already ended.

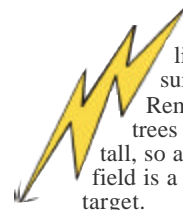
Now it gets personal. Lightning isn't malicious, it just wants to seek ground; the source of the opposite charge. If something like a guy flying a model airplane just happens to be in the way, that's just too bad for the guy. Hey, when you drive down the Turnpike, do you seek out the butterfly that innocently passes in front of you? Heck, no, but it's still kind of fatal for the butterfly to be in your way.

To make it worse, the "shadow" charge will try to climb the tallest conductor it can find, so it can get closer to the bottom of the cloud charge. And, if the tallest object is a person holding an R/C transmitter with a 3-foot whip antenna, oh well.

So, what can we do to be safe during thunderstorm season?

1) If you can hear thunder, land immediately and take cover, even if the cloud is no longer overhead. People have been hit by lightning from clouds that were over 5 miles away. So, just because the storm seems to have passed, don't consider it to be time to go back up. Wait until you're *sure* it's over.

2) Remember, our particular field is on a hilltop, so it's closer to the cloud base and



will attract more lightning strikes than the surrounding lowlands.

Remember, too, that the trees at our site are not very tall, so anyone standing on the field is a much more attractive target.

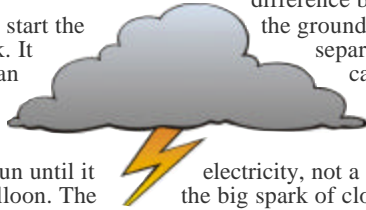
3) Lightning is not like a laser-guided bomb. It's more of area weapon. If it were to strike our flagpole, for example, the "bloom" from it would still have the ability to kill or injure everyone within several dozen yards of the pole. So, don't expect the flagpole to protect you.

4) What if you see showers, but haven't heard any thunder? There does have to be a first rumble, and others could be hearing it as you are being hit. So, if you feel your hair standing on end or you feel a "prickly" sensation, you are feeling that charge "shadow" move over you. You may be within seconds of being hit! Either hit the ground or dive into your car *immediately*. Don't take the time to clean off your plane, etc., as you may not have that much time left.

5) The speed of light is so fast as to be almost instantaneous for us. But, the speed of sound is about 1100 feet per second at sea level. So, if you see a flash and hear the rumble about 5 seconds later, you can assume the stroke was about a mile away. What you have to ask yourself is "Am I *sure* that rumble was the sound from *that* flash?" and "Was the rumble from the near end of the flash or from the far end?" If in doubt, err on the side of caution – No model airplane is worth dying for!

Oh, and one myth I'd like to dispel right now. You are not safe in your car because the tires insulate you. Air is a much better insulator than rubber. A lightning bolt that has just traveled through thousands of feet of air is not going to be delayed by the one-foot gap between your car and the ground it so dearly seeks. The tires aren't even a factor. What protects you is what is called a "Faraday Cage." The electrons in the stroke all repel each other, so they try to travel as far apart from each other as they can. When a car gets in the way of a bolt, the electrons travel along the surface of the car, then to ground. The people inside the car are bypassed by the power of the lightning as it pursues its path to the ground.

All of that power, all due to the ability of water to evaporate and condense. It's amazing how much that liquid we so take for granted can do. And we haven't even begun to talk about tornados, microbursts, or hurricanes! →



Do You Have an Itch to Scratch? continued from Insider May 2007

by Bill Bowne

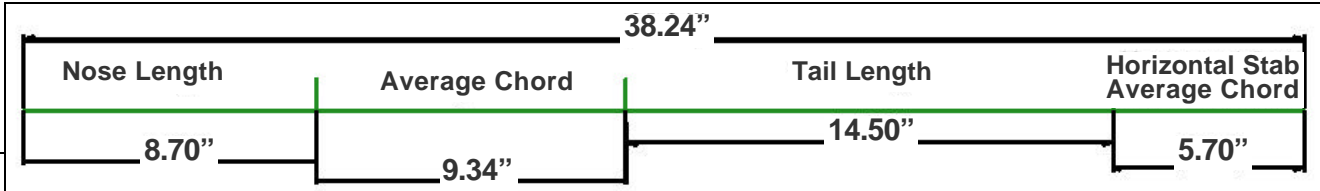
Part III: Let's start drawing!

Let's look at how to do it with pencil and paper. I do use Computer Aided Drafting (CAD), but I started with pencil and paper. You can use whatever method you wish; the principles are pretty similar. If you do use paper, I suggest rounding up some No. 2 (or harder) pencils, a *good* eraser, a metal yardstick, some good paper (not newsprint – it tears too easily when being erased), a protractor, a good 12-inch ruler, a 12-inch square, a good drawing surface (I used to use a melamine shelf, about 1

foot x 4 foot) and some tape (or thumbtacks) to hold the paper down.

Let's assume you're doing a simple, constant-chord, low-wing sport ship. We'll keep on using the numbers we calculated last month.

Starting with a nice, big piece of clean paper, draw a line the length of the fuselage. Mark off the nose length, average wing chord, tail length, and average tail chord. Since the wing is a constant chord, the average is the same as the chord.



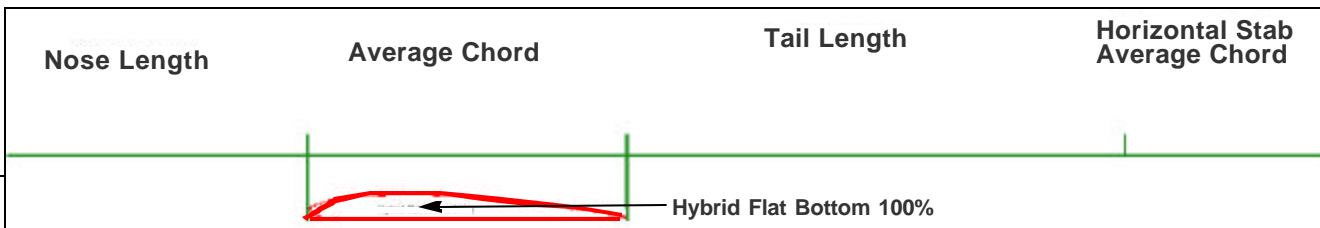
This horizontal *must* be straight as it is what all of the other components will be referred to! When we talk about incidence, down and side thrust, and so forth, we will be doing it in reference to this line.

Next, draw the wing rib profile in. USE PENCIL!!! You will be erasing plenty of lines!

Ah, what rib profile, you ask? There are thousands of airfoils, so which do you want to use? Personally, I use only a handful of airfoils. For slower airplanes, I like either a flat bottom airfoil or a Clark Y. For faster airplanes, I like the NACA 2412. I'm not

into all-out aerobatics, so I haven't used a fully-symmetrical airfoil in many years. You can get airfoils from several sources; kits, airfoil books, or the Internet (there are programs to draw ribs, including spars). Of course, if you're doing a flat-plate foamie, the airfoil is just that, a flat plate.

Let's say you choose a flat bottom airfoil, like the modified Clark YH I use. Why am I picking that airfoil? Because I'm writing this at a campground and all I have on our laptop is my hybrid airfoil!



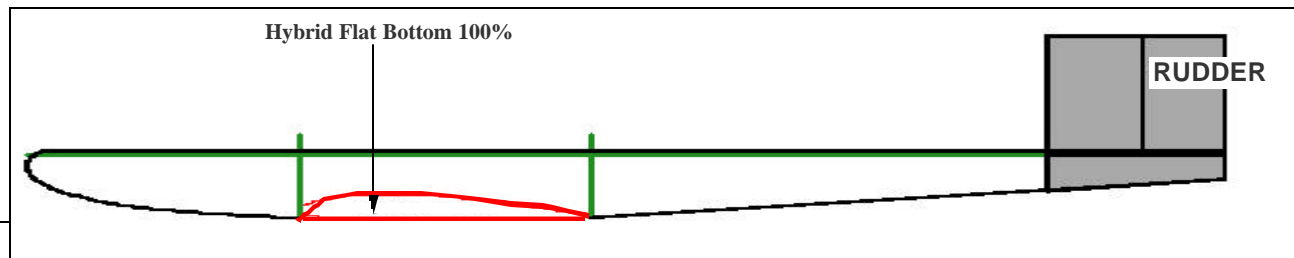
Now, let's decide where to put the horizontal and vertical tail surfaces, and draw a rough fuselage shape. You may ask "How tall and wide do I make the fuselage?" Well, how much room will you need for the radio, engine, fuel tank, and so forth? Do what I do—look at other people's models! If you have another airplane of similar size, measure it. Put the engine on top of the drawing and sketch around it. Likewise, put your servos, receiver, batteries, fuel tank, etc. over the drawing. Leave room for your fingers!

For a sport plane, I like to use a basic rectangular fuselage, with the sides parallel from the wing LE to the wing TE. All of the rear taper is behind the wing TE, tapering from down to the

width of the two sides, plus enough to fit a tapered rudder post. I like the fuse to taper to about the width of the rudder so as to reduce turbulence between the fuselage and the rudder. I know I could add block to the base of the rudder, but then it's not as easy to cover as is a single-thickness rudder.

Depending on the size of the power plant and radio, I'll either taper the fuselage from the wing LE forwards, or else leave it constant width. The reason I often leave it constant width is to allow a fairly large battery-cooling intake.

How about down and right thrust? I usually use about 3 degrees of each. If you're using an engine or motor that turns a big propeller, you may need more. Again, look at what works.



please see *Itch to Scratch...* on page 4

Itch to Scratch...continued from page 3

Here we have a rough fuselage side, with the vertical stabilizer area shaded. Note that I've included the area below the horizontal stabilizer as being part of the vertical stabilizer area. The function of the vertical stabilizer is to stabilize the yaw motion of the model, just as do the feathers on an arrow. What is below the arrow shaft is just as important as what is above, so we need to include that too.

Landing Gear: I'll be frank. We haven't had a nose-gear airplane in more than 20 years. Trike gear weighs more than conventional gear (critical for older, less powerful electrics), is less forgiving on grass, and the nose gear acts like an extra vertical fin to slow the roll rate. I'm not joking about this; it's often reported in reviews of full-scale aircraft that have been converted from trike to conventional gear.

Ground looping can be a problem with conventional gear, but there are three factors that go a long way to tame it:

1. Using the right takeoff procedure is a big factor. Just jamming the throttle forward can make the airplane torque around and try to take off in some unplanned—and probably undesired—direction! Advance the throttle slowly and smoothly, and success is much more likely.
2. For tail-draggers, put the axles under the leading edge of the wing. Old-time Free Flight (FF) models had them farther forward to protect those hand-carved propellers. It works, but it makes for some very squirrely ground-handling.
3. Slightly point the main wheels inward. This is called “toe in”.

If the model tries to turn to the right, for example, the left wheel is now “scuffing” against the ground and will have a harder time turning. The right wheel, though, turns more easily. The differences in drag between the two wheels will force the plane to turn against the diversion and (hopefully) come back to a straight ground path.

Where to put the nose gear is pretty easy, but I'm not going to try to tell you where to put the main gear. I know the gear does have to be behind the center of gravity (CG), but not too far or else it'll be too hard to rotate the airplane to climb attitude.

You do want a trike-gear airplane to sit either level or slightly nose-down, so it won't lift off prematurely during the takeoff run or refuse to settle down on landing. Tail-draggers won't sit nose down (Obviously!), but it's also pretty hard to get them to sit level, unless you really make a tall tail wheel strut.

What size wheels do you want to use? That depends on the surface you fly from. We belong to two clubs; one has a gravel runway and the other a grass strip. Small wheels work very well on the gravel strip, but are useless on the grass one. If you don't mind using skinny wheels, like the ones used on WWI aircraft, you can get better handling on grass without going to absurdly large and draggy wheels.

Hand in hand with wheel sizes is the length of the gear struts. You need to make sure that the propeller will clear the ground. The necessary length is more visible for trike geared airplanes; to estimate the needed gear length for a tail-dragger, we have to look at how long the gear needs to be with the wings level. For peace of mind, I like to put the propeller tip no lower than the center of the wheels, when the airplane is tipped about 30 degrees nose down.

So, we've gone with a tail-dragger gear, with the wheel axles under the wing LE. Whether to mount the gear in the wing or to the fuselage is up to you. In the wing gives you the ability to have a much wider wheelbase, decreasing the likelihood of dragging a wingtip. On the other hand, main gear attached to the fuselage is lighter and lets you rest the fuselage on its wheels (assuming your radio gear is secured within the fuse and won't drop out) when the wing is removed!

What type of aileron do you want to use? Barn door ailerons (i.e., those built into outer portion of the wing) work better than strips (those that go from the root to the tip), but aren't as easy to set up. Some people have success with bell cranks, but I've NEVER had them work well. My best setup for barn doors is to use a separate servo for each aileron. Torque rods work well for strips, but are too flexible for the long reach needed for barn doors. On the other hand, strip ailerons can flex and flutter all too easily. In this drawing, we see a wing with a strip aileron on the left and a barn door aileron on the right. Both are of the same area and both will work.



Okay, so we've gotten a basic layout down. But, we don't really like rectangular tail surfaces. Full-scale airplanes rarely have them, and we don't want ours to, either. So, we'll start next

month by looking at how to turn our “Plain Jane” sport ship into something with some sex appeal. →

Solo Flight...continued from page 1

- (holding altitude and heading. Fly in both directions)
- E. Fly Figure Eight Pattern
(Fly in both directions making right hand turns from right side and left side)
- F. Slow Flight and Stall Recovery
- G. Landing (from left making left turns and from right making right turns)
- H. Demonstrate Aborted Landing and Go-Round
- I. Taxi Back and Shutdown
- J. Secure Equipment (Receiver and transmitter off, antenna down, transmitter in impound, pin removed from frequency board)

Observe student for SAFE operation. Was student aware of wind direction and did he/she compensate for it? Was student aware of position of sun and did he/she avoid flying into glare? Was student aware of other aircraft in the air and other pilots on the flight line? Was the student confident and in control of his/her aircraft at all times?

This checklist can be modified to meet the needs of your club and your students. To receive a printable version of this checklist for use at your club, please visit: www.rcrc.com and select “Student Solo Checklist” under the General Interest link. →

Learning the Art of Model Building

Building model airplanes, like any other artistic medium such as sculpture, landscape, painting, or flower arranging, is an art form in its own right. And like any other art form, it's a learned skill that takes time and dedication to master.

I try to bring a new model to the meetings every chance I get, and I always hear many who look at them say, "I could never do that," or "it would take me 10 years to build that." For the less experienced modelers among us, I can certainly understand how that could come to mind. However, those models are a culmination of more than 45 years at the drawing board and work bench, with the last 12 years having been "full time." It's safe to say that I have been fortunate enough to have packed a dozen average modelers' lifetime achievements into my last five years of modeling!

With that being said, we all must understand that mastering the art of modeling will span a lifetime, and we can't expect to start out where those who have been doing it for many years have aspired to. The good news is that modeling skills are not difficult to learn, it just takes practice. The main thing is that someone new to modeling must begin with a project simple enough to complete successfully—after all, there's no better motivator than success!

So where does one begin? Most of us in the club are RC fliers that fly Almost-Ready-to-Fly (ARFs) models; so naturally, the first thought would be to build an RC model. There are those among us who could accomplish this task just fine. However, that depends on many factors, such as wood-working skills, plans reading ability and so forth. For most, all of those skills will have to be learned right from the start, which might seem like a monumental undertaking! So here's how I'd suggest going about it.

First: Keep the main objective in mind—learning to build models!

Second: Start simple!! The fact that your primary interest is flying RC models doesn't mean your limited to building only RC models. Remember, the goal is learning to build. If you're flying ARF's

now, you can still hone your flying skills while you're learning to build. Then when you do build your first RC model, your flying skills will be in good shape too.

Third: Don't get in a hurry, and don't get discouraged. There are no time limits on any project that are not self induced! And remember, this is a hobby and hobbies are about filling our time with enjoyable activities.

Here's a suggestion for, shall we say, testing the water! Start out with a simple stick-and-tissue type Free Flight kit. The investment is minimal—\$15.00 will go a long way in that realm, and the skills required to complete the model are really pretty minimal, but will go a long way toward building your skills. Then when you get it done, take it out and fly it. Learning to trim these models will also go a very long way in understanding RC models and what makes them tick.

Then with each step, move up to something a bit more complex, and through just a few small steps, you will have learned the basic building and plans reading skills required to build an RC model.

Now, don't expect the first try to produce a world-class model. Keep in mind that this is a series of small steps toward the larger goal of mastering the art of modeling, and with each step, work toward improving something, not everything, on your next model. Give special attention to the areas that were the most difficult on the first one, and before you know it, your basic skills will be forming nicely.

And finally, if you find yourself in a little over your head, ask questions of those of us who do build. Modelers by nature are a pretty good bunch of folks, and I haven't met many who are not willing to help someone who is truly interested in learning the art of modeling. →

Save that stamp!

If your club newsletter is sent to AMA electronically there is no need to send a hard copy.

E-mail your newsletter to lhelms@modelaircraft.org

Need Articles for your Club's Newsletter?

In the Archives section of the Web site you will find every issue of the National Newsletter published since 1997! It's a great resource for construction, safety, and how-to articles as well as hints, jokes, and cartoons all for your to use in your club newsletter!

Visit the newsletter archives online at www.modelaircraft.org/insider

From the Southern California Ignition Flyers, Glendale, California

Hot Stuff!



In the late spring, summer, and early fall our contests and flying sessions are held in some darn hot weather.

Although this year has reached and even exceeded record highs, we get a little complacent about living in these high temperatures when our homes, offices, cars, and shopping malls are all air-conditioned. This hot weather can be dangerous if you aren't prepared.

The following suggestions are easy and can make your fun in the sun safer:

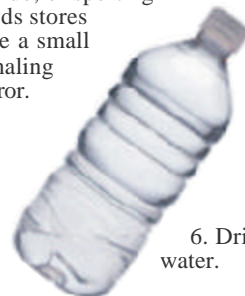
1. Drink lots of water. Start before you get thirsty. Beer and soda will actually dehydrate you. One old trick is to fill plastic water jugs ¾ full and freeze them. This will provide you with cold water as it melts.

2. Shade. Anytime you are working on or adjusting your model, try to do it in some shade. When the air is hot and dry, you can perspire a lot without noticing it and that will dehydrate you fast. A hat is a must.

3. Sun screen with a high SPF rating should be part of your routine.

4. The "buddy system." *Never* go flying by yourself. And always let someone know when you wander off to recover a model. Don't depend on the timer unless you have asked him/her to keep an eye out for you.

5. A mirror. Yes, always take a mirror with you. If your chase bike breaks down or you get stuck, a small mirror device makes a great signaling device. One of your wife's old compact mirrors will do, or sporting goods stores have a small signaling mirror.



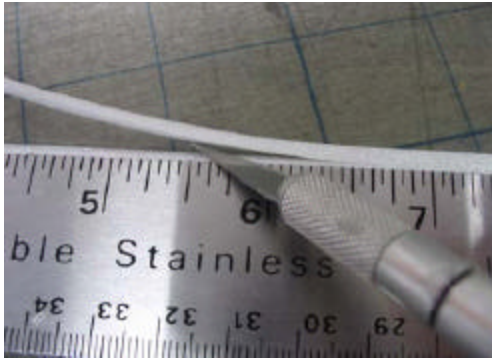
6. Drink lots of water.

Taping Hinges on Foam Aircraft

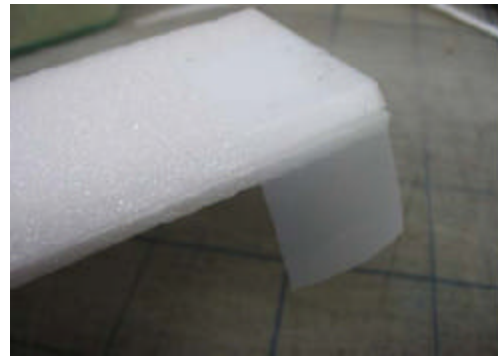
by Dennis Robbins

Whenever we construct foam airplanes, one task that always has to be completed is attaching the control surfaces. The most popular method is to use tape. (3M Blenderm medical tape is my preferred tape of choice.) Even though this is a simple process, there are several different ways to accomplish this necessary task.

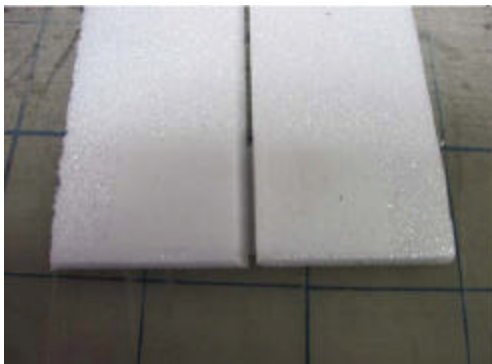
In this article, we'll use photos to illustrate a simple, quick, and very effective way to tape a 3mm thick depron aileron control surface to a wing. →



Cut a 45 degree bevel in the surface to be hinged, which, in this example, is the aileron.



Place the aileron upside down on the wing, and tape at each end using a 2-inch piece of tape.



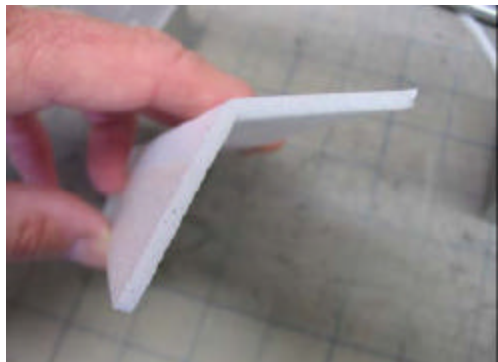
Gently fold the aileron back into place. At this point, the aileron will only be held in place by the 2 pieces of tape.



Now we run our tape the full length of the aileron. The bevel is on the bottom.



In this photo we can see the gap, which forms naturally, if the procedure is done correctly.



The gap and bevel work together to allow the aileron to hinge at 45 degrees. (A third piece of tape can be used on the bottom for extra support if desired.)

RC Airplane Definitions

Prop Nut: What a glider pilot calls power pilots.

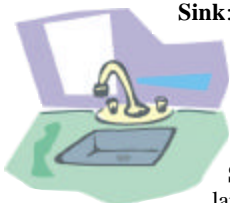
Pucker Factor: A factor that exponentially gets higher, as your out-of-control airplane gets lower. At the high end of the scale, changing your shorts is necessary.

P51 Mustang: What beginners use to learn to fly.

Radio: An expensive electronic device to randomly alleviate overcharged batteries. A device that enables an airplane to crash different places than it normally would.

Radio Glitch: A documented electronic occurrence, causing immediate and irreparable loss of control. The source of a crash when there is a possibility of someone else's radio in close proximity to the airplane.

Receiver: The part of your airplane that



picks up interference.

Sink: Non mythical meteorological event stimulated by RC Soaring pilots.

Skid Protector: Another word for a spinner.

Snap Roll: After a nice high G roll, something snaps, usually the wing.

Spinner: A critical part of the landing gear.

Stall: What you tell your wife when you want to take it up "one more time."

Swept Area: The only part of your apartment that is not covered with balsa dust.

Tail-dragger: An RC pilot that has just spent the last hour looking for his airplane in the woods.

Thermal: A mythical occurrence of rising air.

Tip Stall: Offering several minutes worth of unwanted advice to a nearby pilot, instead of taking your turn to launch off

the winch. Used when sink is in the air, and contest points are at stake.

Trainer Cord: A handy device for electronically installing false confidence into rookie pilots.

Tree: Implement used to separate wings from fuselage.

Upwind Turn: Same as downwind turn. NO, IT ISN'T! YES IT

IS!! NO, IT ISN'T! etc.

Wetted Area: After Rex the wonder dog finds the pit area.

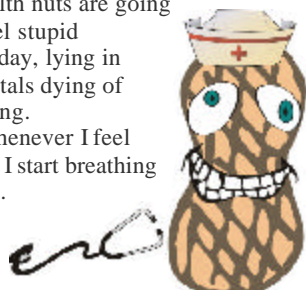
Wing: A device that, due to its airfoil, allows air to flow faster over the top, thereby allowing you the opportunity to pour excess funding into the resulting low pressure area. →



From the Windom Eagles, Windom, Minnesota

Thoughts for the Month of July:

1. The easiest way to find something lost around the house is to buy a replacement.
2. Never take life seriously. No one gets out alive anyways.
3. Gardening Rule: When weeding, the best way to make sure you are removing a weed and not a valuable plant is to pull on it. If it comes out of the ground easily, it is a valuable plant.
4. An unbreakable toy is useful for breaking other toys.
5. If quitters never win, and winners never quit, then who is the fool who said, "Quit while you're ahead?"
6. Get the last word in: Apologize.
7. All of us could take a lesson from the weather. It pays no attention to criticism.
8. Health is merely the slowest possible rate at which one can die.
9. Health nuts are going to feel stupid someday, lying in hospitals dying of nothing.
10. Whenever I feel blue, I start breathing again.



Tips & Tricks

Recycling Masking Tape

I use the clear backing on the MonoKote film to recycle my masking tape if it is still in fairly good condition. It keeps the adhesive from going bad. When I need the tape, I just peel it off.

Protecting Hinges

Petroleum jelly often has been used on pinned hinges to prevent epoxy glue from sticking to the hinge joint; however, it is difficult to get just the right amount on the hinge and to make sure the hinge is completely coated. A very cool way is to melt the petroleum jelly in a small dish such as a dessert dish (an oven safe type, of course). Use only enough to melt to a depth of about 1/6 of an inch. Fold the hinge and dip the pinned end into the melted jelly. Remove and touch the hinge and dip the pinned end into the melted jelly. Remove and touch the hinge to a paper towel to remove excess. In a couple seconds, the petroleum jelly cools and has penetrated the hinge. You now have a completely coated hinge joint that epoxy will not stick to.

—both from Schoolcraft Skyhawks R/C Airplane Club, Schoolcraft, Michigan.

Stir Sticks (Popsicle sticks)

Next time you are in the craft shop, pick up some Popsicle sticks. They come in boxes of 100, 500, or 1,000 and they are cheap. You will be able to use these for all kinds of things like servo rails, reinforcing splices, skids, fuel tank stops, mixing epoxy—any place where you are going to put in screws. You will find all kinds of uses for them.

—From the Niagara County Radio Controlled Model Flying Club, Lockport, New York.

Waterfall

Continuous tail-over-nose descending flip. It's not a loop, but the aircraft actually flops around its canopy. Start relatively high. At low throttle, gradually pull the nose up until its near vertical. Just before it stalls, add full down and full power at the same time. You have to continuously "fly" the rudder and ailerons to keep the airplane flipping over in a straight line.

To do consecutive Waterfalls, continue to hold full down and "fly" rudder and ailerons, and chop the throttle as the nose comes back up to vertical, then add full power as it flips straight down.

—Mike McConville, the Suffolk Aero Modelers, Bay Shore, New York.

T.A.G. Program

T.A.G. (Take-off And Grow) was designed to encourage our members and clubs to promote modeling as a positive recreational activity to those in their communities. TAG clubs provide the general public a one-day introduction to model aviation with the intent of signing individuals up for further flight training through AMA's Introductory Pilot Program.

We received approximately 135 applications and distributed them to the District Vice Presidents for selection. Forty-nine clubs were selected and received two airplanes, two buddy box systems and two flight simulators.

The 2008 T.A.G. Program information and application will be available this fall at www.modelaircraft.org.

See how the 114th RC Aero Squadron club utilized the T.A.G. program in the August issue of *Model Aviation*. →

President..continued from page 1

For AMA as an organization, the challenge is how to address the potential growth that could result from the explosion of park flyers and all of their variations from RC toys to sophisticated small RC models. It's hard to convince someone who has spent as little as \$100 on a model airplane, that he or she needs to join AMA at \$58, then join a club with dues varying from a few dollars a month to much more.

The difficulty we face is how to make it easier to bring these people into the fold without undermining the current membership base and the income it represents. →

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; and,
- 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 safeguard 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 E-mail, to the newsletter editor.

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