AMA Charter 3470

August, 2012

President: *Vic Welland*
Vice President: *David Groom*
Treasurer: *Don Bourdon*
Secretary: *John Limbrunner*
Safety Officer: *Mike Kirby*
Field Marshall: *Mike Kirby*
Assistant Field Marshall: *Mike McGarvey*
Intro Pilots: Seth Nagy, Vic Welland, & *Ron Miller*
Webmaster: *Chris Roberts*

A Note From The President

Not a whole lot to talk about other than it has been hot as hang this summer. I know it has been a factor in my flying activities lately. It kind of reminds me of some of the posters in online forums who live in the north. They refer to the cold months as "building season". In our area we don't really have an extended season of weather that prevents flying like they do but this summer is pretty darn close, at least it was for me. So when the weather gets tough the tough get building. It kind of worked out good since I need to restock the fleet after the Speed Rally.

We will be meeting at the field for our meeting and will have a variety of things to review, plan, and talk about. I will try not to talk much and maybe get a chance to fly something as well.

See you at the field.

Vic

Meeting Schedule

Tuesday, August, 21

At CAM Field

CAM Meeting Minutes July 17, 2012

Vic Welland called the meeting to order at 7:08 PM.

New member applications – None.

Treasurer's report – The club balance is $1,360.35. Checks for $40 and $80 were written for mowing expenses.

Safety report – None.

Field report – Some holes in the runway may need filling when the weather cools. Anchor for Hi-Start courtesy of Ron Miller.

Intro pilot report – Vic owes Art a Solo Certificate.

Old business: Vic expressed his thanx to all who helped with the Speed Rally. Over 100 people attended. Cars were parked all the way to the field entrance. $63 was given from the proceeds to the Hickory Air Museum. A general discussion involving a different time of year to avoid heat, different start and end times, additional speaker for PA system, and a safety net as used in Europe. A suggestion was made to have EMS at the event and as a recipient of the proceeds.

Contact Vic if you are interested in CAM T-Shirts.

New business: Seth and Don are looking for assistance providing flight demos for VBS at Center Grove Baptist Church and at the Old Lenoir High School, this Friday evening, 7/20.

Meeting was adjourned at 7:39 PM.

Caldwell Aero Modelers Agenda
Welcome Everyone
Approve Meeting Agenda
Approve New Member Applications
Reports
Treasurer Report
Membership Report
Safety Report
Field Report
Intro Pilot Report
Old Business
New Business
Announcements
Monthly Presentation -- TBD
Adjourn until August 15 at the field
Auction & Show-N-Tell – TBD

Something Interesting

This article is taken from the July issue of AMA insider and I thought you guys might find it interesting. I find building techniques and explanations very helpful…enjoy –

How to Bend Balsa

Paul L. Daniels (pldaniels.com) printed in the newsletter of
the Feather River RC Modelers, Oroville CA

Quite frequently in building with balsawood we need to bend balsa into a curved surface. For curves with fairly large radii, this can be done without any problem. When it comes to convincing balsa to bend around complex, varying, and tight curves (such as tail planes or wingtips), balsa has to be assisted into making these curves without crimping or snapping.

The reason why we choose to bend balsa around such curves is for a couple of reasons:

- Strength: Balsa is strongest when the grain runs the length of the wood.
- Finish: Sanding with the grain produces a smoother surface.
- Economy: It's cheaper to make a wingtip out of a strip of balsa than to use up a larger sheet of balsa and having to discard the bulk of it.

The available methods of getting balsa to bend more can be broken down into sections: laminating, one-sided moisture/heat, chemicals, long soak.

With all bending operations it's suggested that you start out with the most flexible piece of balsa that you can obtain, typically this is referred to as A-grain balsa. Do not attempt to use C/quarter-grain balsa as it'll tend to split very quickly.

Stage 1: Getting the wood flexible
Laminating: The process of using laminating to make balsa curve around corners is based on the principle that a thinner sheet of balsa can be curved at a tighter radius. The radius of curvature limit varies between materials, but essentially it represents a percentage of

compression (or tension), caused by the difference in curve radii between the inner and outer limits of the balsa. Thinner balsa will be able to be bent tighter before the same critical difference of curvature occurs.

Using the laminating process can be a fairly tedious one, but it does produce an appealing (to some) visual appearance. Laminating produces the strongest, but also heaviest, resulting form.

One-side moisture/heat: If you take a sheet or strip of balsa and dampen one side you'll see that in a few seconds that the balsa starts to curve away from the dampened side. Conversely, if you apply a hot iron to the sheet of balsa, the balsa will curve toward the heated side. The reason why this occurs in both cases is because of a difference in moisture content in the balsa wood cells. The more moisture in the cell, the more it expands.

In the damp application, the damp side of the balsa expands causing the sheet to curve away. With the iron application, the moisture is driven out of the balsa cells on that side to contract and causing the balsa to curl in.

Chemicals: Sometimes you really need to get a piece of balsa around things are already too thin for laminating practically—the solution can sometimes be to chemically adjust balsa to bend. Clouded ammonia (water with ammonia in it) or Windex will make balsa especially flexible. The action by which this occurs is the breaking down of balsa cell walls. Interestingly some people have reported that using vinegar also works, the key appears to be to soak the material in a non-neutral pH substance.

For clouded ammonia, use a 50/50 mix with water. *Caution*: use this mix in a well-ventilated area. Ammonia can suffocate you. If you would rather not take the potential risk, consider using the long-soak method.

Long soak: If using chemicals such as ammonia or vinegar isn't your idea of a pleasant experience, you can soak the balsa in hot/warm water for an hour or more (depending on the thickness). The heat is useful to accelerate the absorption of the water into the cell structure.

Stage 2: Setting the shape

Once you've made your balsa flexible, you can commence to shape it to your needs. For simple curves, such as cylinders, cones and such, you can simply apply the wood to the formers or suitable shape holder (having a good selection of tins, tubes, and rods help here) and tape/hold the balsa to the required shape and allow to dry.

Even if you're using the framework itself to form the curve, do not attempt to glue the balsa at this stage. Wet balsa and glue do not work together. Wait until the balsa is completely dry. Be forewarned that this sometimes can take a day or two in the cold weather. When you remove the balsa from its former shape holder, you'll notice that it tends to spring back a little bit, that is okay, it's normal. You can now glue your balsa to the airframe.