

# Streator RC Flyers

## Special Points of Interest:

Just wanted to remind everyone that there is a club meeting on Wednesday, April 13th 7:00 pm at Streator Unlimited.

Reminder: 2016 field dues were due Jan 2016.



## Toledo Show news

### Streator RC Flyers

Dynamic Balsa made it to Toledo again this year. Have to talk to Brian and see how the show went. I've heard that they had a lot more large scale planes this year. I imagine that Horizon Hobby had the new 35% Extra 300 released in time for the show. That and the other new products from this year should of had their booth jumping.

One thing I did notice this year is that there are a lot more quads and racing quads than ever before. The ARF's are



PS. Love the Hats and Bow ties at the Balsa USA Booth.

much better than they ever have been. E-Flite has a new Spitfire, a small B25 and the large Extra 300, Flex Inovations has some neat airplanes out as well as Balsa USA Spektrum also had there new 20 channel on display. Dubro has there new thinner Ultra Light wheels.

## AMA NEWS updates

AMA Leadership met with the FAA on Friday, January 15 to discuss model aircraft registration and to resolve member concerns such as LMA. During those discussions the FAA stated the registration

of Large Model Aircraft was overlooked and indicated there was no intent to subject AMA members who fly large model aircraft over 55 pounds in compliance with AMA guidelines to a stricter registration process. Also, it was

not intended for model aircraft flown within AMA programming to register under the Part 47 process and obtain an N-number. The FAA UAS Integration Office is currently looking into this issue and said they'll respond back to

### Club Meeting Minutes

The last meeting was called to order at 7:30. After the April meetings the meetings may be held at the field on Sunday afternoons depending on the weather. All the officers were officially voted into office. Brian welded a mount on top of the wind shock pole and John mounted the new sock up and it is looking good! Roger Wheeler informed everyone that the Peoria Fun Fly is May 21st all day. Anything that flies will be accepted. John Chorak motioned to adjourned and was accepted by Roger.

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## Streator RC Flyers

### 2016 Schedule of Events

[Peoria RC Modelers Open House May 21st 2016](#)

[IVRC Fun Fly June 18th 2016](#)

[Windy City Warbirds & Classics June 23rd - 25th 2016](#)

[Dave Goerne Memorial Fun-Fly June 25th 2016 @  
Streator RC Flyers Field](#)

[Warbirds on the Warpath July 9th - 10th 2016 Peoria  
RC Modelers](#)

[Barnstormers Over Champaign August 27th-28th 2016](#)

[Streator RC Flyers Fall Scramble Warbirds & Classics Fly  
In September 24th and 25th 2016](#)



## Our Board members

**PRESIDENT: Randy Bond phone:815-252-1312**

**VICE PRESIDENT: Jim Underwood phone:815-488-3070**

**TREASURER: Dale Chiavene phone:815-672-1689**

**SECRETARY: Brian Burcar phone:815-228-2270**

**SAFETY OFFICER: John Chorak phone:815-673-2906**

**FIELD MARSHALL: Rob Sharisky**

# Spring Tune-Up

**Spring is coming! Soon, a beautiful spring day will arrive, and you'll want to go out flying. To make sure you have an enjoyable and successful opening day, now is the time to prepare. Here are a few things you should thoroughly check to make sure your plane is ready and safe to fly**

**Batteries:** You should test your batteries under load. Hangar 9's Digital Variable Load Voltmeter (HAN171) is perfect for this. You can also use a charger that measures the capacity of your battery pack (number of milliamp hours). If the battery pack is not up to its rated capacity, you should replace it. Be sure to check your transmitter's batteries too.

**Fuel Lines:** Make sure your fuel lines are in good condition. Be sure to inspect the clunk lines and clunk in the fuel tank. This is where most failures occur. While you have the fuel tank out of the plane, check it for worn spots due to vibrations. This is also a good time to flush out any oil that may have accumulated in the fuel lines.

**Engine:** Check all of the engine-mount bolts and the muffler bolts. Be sure the bolts are tight and replace any that are missing. This is also a good time to replace the glow plug. If you fly a gas plane, flush out any oil that may have accumulated in the carburetor. This is done by removing the diaphragm cover and depressing the diaphragm lever, while the fuel tank is under slight pressure

**Linkages:** Inspect all linkages. Check all the control horns for excessive wear. A worn-out control horn could result in flutter or even cause loss of control in flight. Check all the solder joints, ball links, cables and hinges. All the connections should be tight, and the control surface should move freely.

**Radio and Servos:** Check all the wires and connectors for wear. Look for holes or cuts in the insulation due to vibrations. Be sure all connections are secure. Replace any defective wiring, switch assemblies and tie wraps. Tape your crystal into your receiver by wrapping the receiver with electrical tape over the crystal. Check the condition of the foam used to protect your receiver.

If you own a JR® 10X transmitter, you can easily test the operation of your servos using the "Function Mode 75" servo monitor feature. Be sure to disconnect the servo arms from the servos first, as the servo monitor feature will test the full range of motion of all the servos and could damage a linkage. If you are using metal gear servos, use a drop of blue Loctite on the servo control horn screw. Once you're happy with the servo performance, be sure to range check the radio before you take that first flight.

**Landing Gear:** There are many kinds of landing gear, from fixed gear tail draggers to full-scale models with retractable systems and brakes. But they all need to be checked to ensure all nuts and bolts are tight, and all the components are in good condition. Don't forget to add a drop of retract oil to the air tank of your retracts. Also, be sure to apply a small amount of grease to the axles and brakes.

**Note:** Now that your plane is ready to go, you may want to spend a little extra time sprucing it up. Inspect the covering and work out any wrinkles that you find. Clean off the excess oil and touch up the paint. If you feel uncomfortable about performing any of these steps, don't be afraid to ask an experienced pilot at your local flying field or Brian at Dynamic Balsa for help.

# Getting that Great Looking Finish

A beautiful, professional quality finish adds that all-important final touch to your model. It's what gets those extra stares at the field...and makes you proud of a job well done. Some expert builders would have you believe that covering is an art that takes years of experience to develop, but the truth is that you can achieve it with some basic know-how and patience.

Understanding the materials you're working with is vitally important, and, surprisingly, this is where many modelers make the biggest mistakes. Each brand of covering has unique properties. So if you learn using one type of covering and then try using those techniques with a different brand, it often leads to marginal results.

I've been using UltraCote exclusively for the last 15 years. UltraCote offers several unique properties that are advantageous over other film coverings, making it easier for me to achieve and maintain a professional finish. Applying UltraCote requires its own learned techniques.

## Multi-temperature, Maximum Control

UltraCote is unique in that different things happen at different temperatures. This allows for precise control during covering. Covering with UltraCote becomes many times easier- with vastly improved results- when you understand what specific temperatures do to UltraCote, and when to use those temperatures.

### 220°F-Application

The adhesive is activated at just over 200° F. At the recommended application temperature of 220°, the adhesive reaches its full bonding strength. No shrinkage of the film occurs, so no distortion of the film takes place.

Use the 220° application temperature when applying covering and when applying UltraCote trim pieces over UltraCote. Remember, if your iron is set at 220°, no shrinkage or distortion will occur, so there is no risk of distorting seams, trim lines or trim pieces and full bonding strength occurs.

Watch out for...



Don't press! Heat liquefies the adhesive, not pressure. Let the heat do the work and avoid gouges. It's natural to want to apply pressure, but it doesn't affect the bonding strength. If you're using a sock (highly recommended), it will be necessary to go more slowly over a given area, as it takes longer for the heat to penetrate the material. Some modelers turn up the heat to 240° when using a sock, but I prefer to stick with the 220° temperature and go at a slightly slower pace. This creates fewer air bubbles.

### 300°F- Shrink Onset

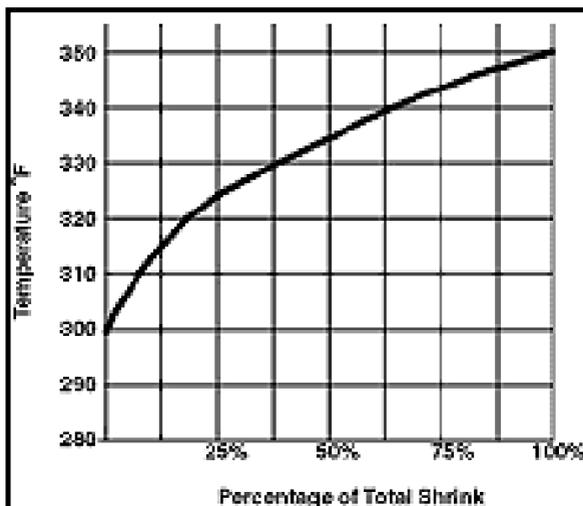
At 300°F, UltraCote will begin to shrink. Use this temperature after the covering is applied to tighten it, remove wrinkles and remove imperfections. It's amazing how many wrinkles can be removed at this temperature, and it's important to start removing imperfections at this minimum shrink 300° setting.

UltraCote features a unique property that allows for a controlled shrink rate based on the selected temperature. While it begins to shrink at 300°, at 320°, UltraCote shrinks 18% of its total shrink rate (see chart). It's important to use the minimum temperature necessary to achieve a smooth wrinkle-free finish.

Most modelers don't realize that to further shrink most brands of film covering, it must be heated above its previously exposed peak temperature. In other words, if a covering was already exposed to 320°, it will be necessary to go above 320° to further shrink the covering. Use the lowest temperature possible to achieve a smooth wrinkle-free finish at the start and you'll have the largest available shrink rate remaining, should you later need to shrink the film.

Watch out for...

Stay away from seam lines and edges! Remember, 300° is well above the adhesive activation temperature, and seams will pull away. If you have some stubborn wrinkles close to the seam line, try this trick. Soak a washcloth in cold water, then fold it twice and place it on the seam line, covering the seam but exposing the wrinkles. With your iron at 330°, quickly apply it to the wrinkled area (about 5-10 seconds). The washcloth will keep the seam cool, and prevent it from pulling apart and distorting.



### 350°F- Maximum Shrink

At 350°F, the maximum shrink is achieved. You won't use this setting very often, but it's important to know the total shrink temperature range. That's because the amount of shrink rate you'll have left is based on the temperature you use to shrink the covering.

For example, if you're shrinking your film using 320°, by referring to the chart, you'll find that 82% of the total remaining shrink is left. That's good! That means that, if in the future you need to reshrink the covering, it won't be a problem. But a word of caution: use the highest temperatures only as a last resort to shrink wrinkles and imperfections. In most cases, if you need to use this much heat, you'd be better off to just replace the covering with a new piece



Watch out for...

Stay away from seams and edges. This high temperature can cause bubbling and blistering.

## Removing UltraCote

You may come to a point when you'll need to remove or replace a piece of UltraCote. In many cases, the covering will simply pull away, but if you're having a tough time, use your heat gun. Lift a corner of the covering, and then pull away while directing heat in the area to be removed. I just recovered the 2-year-old Reebok CAP 232 pictured here using this heat gun technique, and it looks as good as new!



Hangar 9™ Heat Gun

## Bubbles and Blemishes

When your airplane sits out on a hot sunny day, you may notice that the covering bubbles and wrinkles. This is common with all brands of film covering, no matter what the manufacturers claim. But getting rid of those wrinkles is easy. You'll need a heat gun, a covering mitt, a wet washcloth, and a fine straight pin.

Heat the affected area, and notice how the air underneath the covering expands, making bubbles. As you continue to apply heat, moving in a 6" circle, it will release the adhesive bond. At first, several small bubbles will appear, but as you continue to work the area, the bubbles will join to form one large bubble. Now pop the bubble with the pin, and immediately wipe the area with a covering mitt to reattach the covering. It may take several attempts, and you'll get better after you do it a couple of times.

It's important to not stay in one place for very long with the heat gun, especially if you're working with a balsa-covered foam part, as warping and damage could occur.

If the affected area is close to a seam, use the wet washcloth trick to prevent the seams from distorting and pulling apart.



Hangar 9™ Covering Glove

## Preventing Heat Blemishes

Heat blemishes occur when the elevated temperature causes the trapped air in the wood to expand. With nowhere to go, the expanded air causes a bubble to form in the covering and stretches the film. When the air cools, the stretched covering remains. You'll notice this happens especially with dark colors like black or dark blue, and that this never happens on the bottom of the wing, but only the top where the sun heats the surface.

The solution? While several methods have been tried—like completely painting the wood structure with thinned white glue to prevent the air from reaching the surface—we know of only one method of preventing this from happening: don't leave your airplane in the sun! Seriously, get a cover or a tent or find some shade. Also, choosing light colors will prevent the intense heat buildup. Last summer during our hottest days, I measured the covering temperature on a dark blue airplane that had been sitting in the sun at 163°. If you keep them from getting hot, there is no problem, but, for those times when they do, practice the re-shrinking techniques mentioned above, and it will only take a few minutes to bring back that pristine finish.

## Final Tip



A very good builder and pilot once shared this perspective with me. He said that, if things go well, that new airplane you're building would last several seasons. Maybe even 5 years or longer. Wouldn't it be worth spending a little extra effort and time during building to make it the best you can?