



# Stetson Flyer

Stetson Flyers Model Airplane Club

February 2002



Nigel Veza has the honour of holding the Pranged Pig Award from the January meeting.

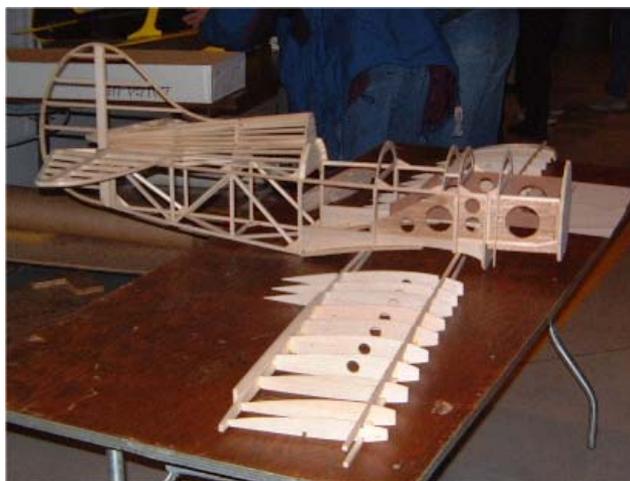
## Next Meeting

Tuesday, February 26<sup>th</sup>  
7:30 pm

**Video of Ray Williams**  
1/3 scale Avro 504k powered by  
home built 160 Gnome engine.

*Don't forget your "Bring'n'Brag"!*

***Use the back door  
to the museum!***



## Coming Events...

February 24 <sup>h</sup>	Winter Fun Fly
February 26 <sup>th</sup>	Regular Meeting
March 26 <sup>th</sup>	Regular Meeting
April 30 <sup>th</sup>	Regular Meeting
May 28 <sup>th</sup>	Regular Meeting

## Club Officials and Contacts

<b>President</b>	Gerry Nadon 824-9100 president@stetsonflyers.com
<b>Vice-President</b>	Peter Barnes 824-5352
<b>Secretary</b>	Erich Zappe 830-7549 secretary@stetsonflyers.com
<b>Treasurer</b>	Dan Murphy 663-5188 treasurer@stetsonflyers.com
<b>Chief Flying Instructor</b>	Rick Ramalho 741-3337 cfi@stetsonflyers.com
<b>Webmaster</b>	John Jackson 445-5726 webmaster@stetsonflyers.com
<b>Newsletter</b>	John Jackson 445-5726 editor@stetsonflyers.com

### ***Mailing Address:***

The Stetson Flyers Model Airplane Club  
P.O. Box 456, Orleans, ON, K1C 1S8

### ***Web Page:***

<http://www.stetsonflyers.com>

### ***Dues:***

\$55.00 per calendar year; \$30.00 for students under 18

### ***Meetings***

The Stetson Flyers meet at 7:30 on the last Tuesday of each month, except for December, June, July or August. The meetings are held at the Canadian Aviation Museum in the Bush Theatre.

## Receive this newsletter via email!

Instead of sending a printed newsletter by Canada Post, we can send you an email notice with the web site address where you can download the newsletter each month. The file is an Adobe Acrobat PDF file, which means that you need to use a FREE Acrobat Reader software to view or print the document. There is a link to the Adobe site to get the FREE software on our web site.

The benefits to you are faster delivery, colour pictures, less cost to the club, and environmentally friendly to boot!

To receive the newsletter by email, send **your** email address to [editor@stetsonflyers.com](mailto:editor@stetsonflyers.com)

## Please visit our web site at

<http://www.stetsonflyers.com>

Our web site is hosted as a community service by  
**Magma Communications**  
(613) 228-3565

Would you like a member discount on your internet access? Contact club member Rick Ramalho at [rick@magma.ca](mailto:rick@magma.ca) to receive information on discounts for Stetson Flyers members.

## T-Shirts—2nd Chance!

Any members who missed the run on the Stetson Flyer shirts can contact Doug Tufts as there are a few left in the "Prairie Dust" colour. The shirts are \$20 each.

You can reach me at 613-745-0041 or e-mail [doug\\_tufts@hotmail.com](mailto:doug_tufts@hotmail.com)

Glide distance is exactly equal to the distance between the spot where the propeller assumes the horizontal position, and the nearest spot level enough for a landing minus 10 feet.

A new glow plug will last forever if you have spares, but only about a half-an-hour if you don't.

Only when the part has been totally removed from the plane will it be realized that the part removed was the wrong one, and one in a completely different part of the plane is the culprit.

Looking for event dates for other clubs in this area? Check out the calendar on club member Darcy Whyte's web page:

<http://www.calmdays.com/h/cd/calendar.asp>

If there is an event that is not listed, you can add to the calendar at the top of the page.

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**For Sale:** If you have something you would like to sell, feel free to send me the details and I will add it to our next newsletter!

## WHAT MAKES A GOOD TRAINER?

If you've never flown an RC model airplane before, you might be tempted to buy one that has a lot of visual appeal, such as a scale model or an advanced sport flyer. Though many of those types of kits are fairly easy to assemble, the models can be very difficult to fly if you have no previous experience. Your first plane should be a good trainer—something to cut your teeth on before moving up the performance ladder. A lot of excellent trainers are available. Here are some basic things to consider when deciding which one is right for you.

### Repairability

The simple truth is that your first—and maybe your second—airplane will be damaged in the course of your learning how to fly. Knowing this, you should look for a trainer that has relatively few parts that can be easily repaired if they are broken. Wood and foam are high on the easy-to-fix list; molded plastic is more difficult to repair. Cyanoacrylate (CA) glue, e.g., Krazy Glue and epoxy are the most common adhesives used for gluing wood parts together, and aliphatic resin, Elmer's white glue, is excellent for gluing foam pieces back together.

### Parts availability

Sometimes it will be easier to replace damaged parts than to fix them. Try to select a model that has replacement parts readily available from the manufac-

turer. Some model kits come with extra wings just in case you damage one beyond repair. Parts such as motors, batteries and speed controls get damaged or worn out, so be aware that you can simply replace these parts instead of having to buy a new model.

### Stability

Some trainers are easier to fly than others. Talk to people who have different kinds of models and find out how stable their models are. A good indicator of how stable and, thus, how easy a model will be to fly is how much wing dihedral it has and how long the tail moment is. If the model has a fair amount of dihedral angle (5 or more degrees) and the tail is fairly long, it will fly more stably and smoothly, and this will make it easier to learn how to control it.

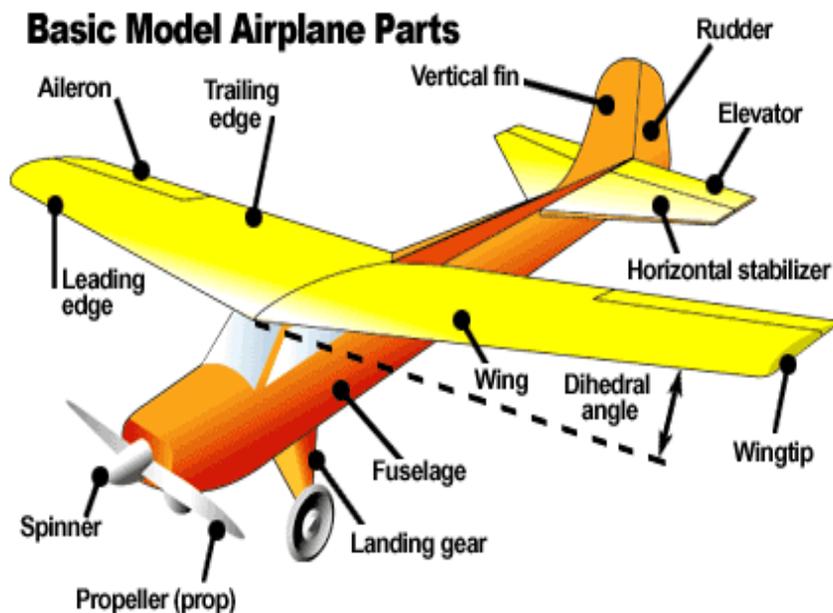
### Control setup

Before you buy a model, check its control setup. Some trainers have rudimentary controls that offer only a little control-surface deflection. Others have a more standard primary-control setup that gives you complete rudder, throttle and elevator control. More advanced designs also have aileron control. For your first couple of models, however, primary control is all you'll need.

### Accessory equipment

Finally, check to see whether the model you like comes with all the equipment you'll need to fly it. In the long run, it is less expensive to get everything in one package. Your kit should include all the materials needed to completely assemble the model: a motor, a propeller, an ESC, a battery pack and a battery charger. Some of the more complete kits also come with a radio system that includes the transmitter, a receiver, servos and a switch harness that will turn the radio on and off. Starting out with all the equipment you'll need to assemble your model plane is the best way to get airborne.

From the web site [www.gettingstartedinrc.com](http://www.gettingstartedinrc.com)



If it is moving and it shouldn't be -- use duct tape.  
If it is not moving and it should -- use WD40.

## Getting that Great Looking Finish!

We asked John Adms, Horizon Hobby's Research and Development Manager, for his tips, tricks and techniques for getting great-looking finishes.

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

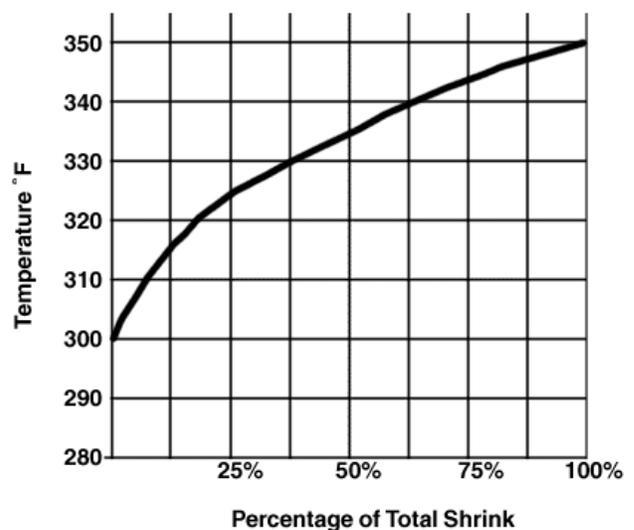
the material. Some modelers turn up the heat to 240° when using a sock, but I prefer to stick with the 220° temperature and go at a slightly slower pace. This creates fewer air bubbles.

### 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 re-shrink 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!

## Bubbles and Blemishes

### Hangar 9™ Heat Gun

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.



### Hangar 9™ Covering Glove

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.

## 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?

This article reprinted from the Horizon Hobby web site. You can visit this site at:

<http://www.horizonhobby.com/>

### Why Do I Need An Instructor?

An instructor serves two purposes. First, he will fly your model for the first time to make sure it is performing properly before you try to fly it. When a new R/C model takes off for the first time, there is no way of knowing exactly which way it is going to go. Some models will try to climb, while others may want to go down. Some will try to turn left, others right. Some models will be doing both at the same time on the first flight! It doesn't mean that there is anything wrong with the model, but these minor differences must be "trimmed out" in order for the model to fly properly straight and level. That's why a new model's first flight is best done by a pilot who has flown an R/C airplane before, someone whose reflexes are already conditioned to anticipate the model's actions and instantly make the right move to counteract.

The second reason for an instructor is to correct any mistakes you might make when you take over the controls for the first time. Let the instructor get the model airborne and flying level at a safe altitude ("several mistakes high" as the old saying goes) before he turns the control box over to you. You will quickly find out that it is very easy to overcontrol an R/C model and to get disoriented-**EVERYONE DOES IT AT FIRST!** If you get in serious trouble on your first flight, quickly hand the transmitter back to the instructor so he can rescue the airplane. He will get it leveled off and then let you try it again.

In addition to not overcontrolling, another problem that beginners need to overcome in learning to fly R/C is the left/right control reversal that happens when the model is flying towards you one minute. away from you the next. For example, if you were seated inside the cockpit of a full-scale airplane and moved the control stick to the right, the airplane would turn to your right. Moving the stick to the left would make the air-

plane turn to your left. That's not always true with an R/C model! If the model is flying away from you, the controls are normal-right stick makes the model go right, left stick makes it go left. But when the model is turned and flying towards you, the controls are now reversed-when you move the control stick to the right the model still turns to ITS RIGHT, but now that actually makes the model travel to YOUR LEFT. This can be confusing at first, but with practice you will adjust to it.

It's not that learning to fly R/C is difficult, it's just a lot different than anything you have ever done before. Anyone can learn to fly R/C airplanes if they are willing to listen and learn! Remember the first time you tried to ride a bicycle? It seemed completely awkward the first time, but once you learned how, it quickly became very easy. Learning how to fly an R/C model airplane also comes quickly to most people.

This article reprinted from the RC Flying Network. Visit their web site at:

[www.rcflying.net](http://www.rcflying.net)

### TIP: Shop-made radius sanding tools

Take some 1/2", 3/4", 1", 1 1/4" and up in size PVC pipe pieces, I made mine about 6" long, and saw lengthwise in segments of 120 Degree, line the inside with your choice of sandpaper- emorycloth, and whoopydo, perfect tools for sanding radiuses on leading edges or whatever else needs a good even radius.

From RC Flying Network — [www.rcflying.net](http://www.rcflying.net)



**IMAA Chapter 217**  
Ottawa Valley

**Computer Radio Draw**  
Saturday March 23, 2002 2pm

**Tickets \$2.00 ea or 3 for \$5.00**

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**Futaba 8UAFS**