



# Stetson Flyer

Stetson Flyers Model Airplane Club

April 2002



**Amanda Niekamp**, Age 11, shows off her SIG Kadet that she will be learning to fly with this spring.



One of the fine models on display at the IMAA Meeting at the Canadian Aviation Museum in March.

## Next Meeting AUCTION!

Tuesday, April 30<sup>th</sup>  
7:30 pm

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

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



### Lonestar Café Prize-winners

The following members won door prize gift certificates at the March meeting:

- John Jackson
- Mike Ingham
- Burt Fortier
- Jerry Elias
- Greg Marshall

There were two more winners but I do not have their names.

Thanks to Fabian Mondaca for arranging this great draw with Lone Star Cafe!

### ***Coming Events...***

April 30 <sup>th</sup>	Auction Meeting
May 28 <sup>th</sup>	Discount Hobbies Night
June 2 <sup>nd</sup>	Ed Rae Memorial Fun Fly
Aug 31 <sup>st</sup> /Sept 1 <sup>st</sup>	Pattern Event
Sept. 15 <sup>th</sup> /16 <sup>th</sup>	IMAA Giant Scale Event

Our website address: <http://www.stetsonflyers.com>

## 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 white and "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)

**Reminder**—The gate code to the field was changed April 1st - don't forget your 2002 membership card and MAAC when coming to the field to fly. The new code is on your membership card, but you should have both any time you are flying at our field.

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!

# SCROUNGING

The following post was made to the SMALLNET listserver by Tom Arcoleo < tarcoleo@iopener.net <mailto:tarcoleo@iopener.net>

Why scrounge, you ask? Well the most important reason is serendipity. If you are really a model builder, it's on your mind almost all the time. So when you go out shellfish fishing, as I did today, you can't look a mussel in the face without seeing a possible streamlined housing for a protruding servo in the form of the animal's shell.

A while back, another answer to a problem appeared -- this one came blowing in the wind in the form of a large piece of polyethylene foam sheet (electronic packaging). It is extremely lightweight and provided the covering for about six planes until the wind again blew something in.

The second reason for scrounging is to obtain material that you know to be useful, and isn't easily obtained from conventional sources. Examples include kiln-dried grade A ash wood scrap from a local furniture manufacturer's dumpster, or ash cut from old baseball bats; Kevlar cloth from used auto airbags (free from body shops), cardboard (anywhere), free kraft paper and plastic bags from retailers, scrap aluminium or fibreglass insect screening, and free Coroplast from sign shops.

The third reason to saunter through junk shops, flea markets, scrap dealers, and the occasional industrial or recycle dumpster is to learn about stuff you didn't know existed. For example, we do know about the pink Styrofoam sold at Home Depot, but a while back I discovered in a dumpster the higher-grade extruded white product made by Dow. The point is that this country is producing, consuming and discarding "stuff" at such an incredible rate that it is bursting at the seams. Do your part to clean up the planet and create something useful or beautiful to boot.

Kitty litter bags look like great material, but I haven't found the adhesive technology to secure it to wood frames. The free WalMart pretty blue bags are made of the same tough plastic, with the same hard-to-adhere problem. Large Tyvek envelopes are available inexpensively at Staples. Trust "Welder" brand glue (WalMart) to do a great job with this heat-shrinkable cover material.

Strengthening Styrofoam can be done with insect screening (fibreglass or aluminium) using alcohol-thinned epoxy so as not to dissolve the foam. In Europe and in our club, brown Kraft paper will work

with almost any glue. With or without spars, the reinforced Styrofoam wing becomes strong because of the "exoskeleton" created. Fibreglass screening also makes great hinges.

You don't have to buy expensive hardware for control surfaces. Bamboo pushrods are the best and cheapest (especially if you eat a lot of Chinese). Rods longer than 12" can be made by coupling lengths together with thin-wall brass tubing salvaged from telescoping TV antennae. That brass or stainless stuff is good for fuel tank parts as well.

It pays to have a table saw so that you can (1) cut up old ash baseball bats, (2) cut nice grooves in Styrofoam to glue in ash reinforcements, (3) resaw lightweight white cedar shakes (siding) as a substitute for balsa, (4) make parts you cannot make any other way. If there is one large power tool you should have, that's it..



Pranged Pig Award for March 2002 goes to **Jim Brown**

# Everything You NEVER Wanted To Know About Radios !

By Ian Hirschsohn

Continued from last month's newsletter...

## AM/FM considerations

As we have seen, the narrow separation of R/C channels makes tuning of the internal amplifier circuits important. It is more critical for the transmitter because the receiver is so narrowly tuned that any transmitter drift results in loss of driving signal, particularly when the model is far away. The strength of the transmitter signal is reduced by 100,000 at a distance of 360 ft. i.e., the typical 0.5 watt transmitter signal is 5 microwatts when received at that distance - if everything were tuned perfectly (50 dB free air attenuation @ 360 ft). Bad tuning and extreme temperature cause "drift" in the amplifier tuning so that the actual power reaching the transmitter antenna at the crystal frequency may be significantly attenuated.

For example if the Radio Frequency (RF) final stage amplifier for a channel 14 transmitter were to drift from 72.070 MHz because you left the transmitter in the sun so the coils and/or capacitors got hot, the actual power reaching the antenna at 72.070 MHz would be substantially less than the rated 0.5 watts. You may not be aware of this until the model is a dot in the sky and continues to become a smaller dot in spite of all your frustrated wiggling of the sticks.

It is physically impossible to tune the transmitter RF amplifier to all possible channel frequencies even just in the 72 - 73 MHz band. Typically the manufacturer tunes it to just the crystal supplied e.g., if the box says channel 20, the transmitter was almost certainly tuned to that frequency (72.190 MHz).

If you replace the crystal with some other channel e.g., channel 35 (72.490 MHz) the RF amplifier will be off by 0.3 MHz and the power output substantially diminished. One or two channels either side e.g., 19 or 21 is generally not too significant, but if you need more than that the transmitter should be sent to an R/C radio shop for retuning. (Note that xtal/amplifier mistuning does NOT apply to receivers because their amplifiers are tuned to the IF frequency which is identical for all channels.) Mismatched transmitter amplifiers are only possible with cheaper transmitters, which have directly replaceable crystals e.g., Futaba Conquest/Skybport/6XA. Airtronics Vanguard, Hitec Flash/Focus, etc. More expensive transmitters e.g., Futaba OUAF/OUAP, Airtronics Infinity,

Hitec Prism have modules which plug into rectangular cavities in the rear of the transmitter. These modules contain not only the crystal, but the RF amplifier and all other frequency dependent whirly-gigs. Thus modules can be swapped for any frequency while maintaining precise frequency alignment -- even across bands e.g., 72 MHz and 50 MHz bands. Because they contain so many components, these modules are substantially more expensive than simple crystals, typically \$35 - \$50 vs. \$10 - \$25 for crystals. However, if you value your model, their precision is worth the price. The Hitec Prism 7X at \$225 is good value for a module based computer radio.

An interesting feature of module based transmitters is that all of the RF electronics is contained in that rectangular capsule so an FM transmitter can be switched to AM simply by plugging in the vendors AM module. Thus an up-to-date Futaba 8UAP or 8UAF computer transmitter can drive an AM receiver by plugging in a TP72AM AM module, of the appropriate frequency. This may seem a backwards combination, but the Futaba RJ112JE 2 channel AM receiver is lighter, smaller and more rugged than any FM micro receiver and a perfect candidate for hand launch, plus it costs under \$30. (Hitec also has a 2 channel AM RX for their Focus 2.) V-tail and Zagi pilots take note - all the V-tail, Elevon, sub-trim, dual-rates, exponential and other smarts of the computer transmitter work on the cheap AM receiver.

With the migration from AM to FM, AM receivers are pretty much limited to 4 servo channels, so AM is not viable if you need 6 or 8 servos.

### Bottom line:

1. Don't leave your transmitter (which is usually blade plastic) in the sun for any length of time.
2. Avoid a black fuselage colour scheme, to limit receiver IF amplifier temperature drift.
3. Don't switch crystals on the transmitter by more than 2 channels up/down.
4. If you can afford them, use module based transmitters.
5. Consider buying an AM module for your Futaba or Hitec computer transmitter if you are a hand launch or combat aficionado.

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<http://www.torreypinesgulls.org/Radios.htm>

## ITEMS FOR SALE

1. Goldberg Ultimate Biplane with Saito FA-91S and JR XP783 PCM radio Fiberglass cowl & wheel pants, Tru-turn spinner, Graupner prop, Yellow and blue Ultracote covering, Concours winner. Flown 2 seasons, no damage. Great flier, can hover vertically

**\$700**

2. Sig Astro-Hog with OS 70 Surpass and Futaba Attack 4-channel AM radio, Coverite fabric covering, white and orange dope finish, Flown 3 seasons, easy to fly

**\$400**

3. Sig Something Extra with Fox 45 and Futaba Skysport 6-channel FM radio, Red and yellow Ultracote covering, aluminum spinner, Flown 1 season, no damage

**\$300**

4. Chips with OS 26 Surpass and Hi-Tec 4-channel AM radio, Yellow Ultracote covering, Flown 1 season, no damage

**\$300**

5. Clancy Stagger-Bee biplane with new Enya SuperSport 15 ABC (never run), Futaba Conquest 6-channel FM radio, Yellow and blue Ultracote covering, Ready-to-fly, but never flown, engine is new, never run

**\$300**

5. Top Flite FW190D-9 kit, fuselage & tail framed up, remainder in box + Century Jet scale retracts, scale wheels, cockpit kit, fiberglass cowl, scale spun spinner and fiberglass cloth for covering

**\$600**

6. Enya R120-4C engine, new in box, complete with tools & muffler

**\$400**

7. O.S. 61SF ABC long stroke, new in box, w/ stock muffler, Bisson Pitts muffler and J'Tec aluminum mount

**\$170**

9. Enya SuperSport 15 ABC w/ muffler, new in box

**\$70**

8. SuperTiger GS45 ABC w/ muffler

**\$50**

10. O.S. 40 Surpass, bought lightly used, never run myself

**\$80**

11. House of Balsa 1/2A Chipmunk kit, new in box

**\$50**

12. Sig Riser 2m sailplane kit, new in box

**\$50**

13. Flyline Fairchild 22 kit, new in box scale .10 - .15 engine, 48" span parasol wing

**\$40**

14. Kanata Aircraft Models Cassutt 15 kit, new in box

**\$50**

15. Hobbico Accu-Cycle battery cycler, with Futaba connectors, 1 year old

**\$100**

John Weber

798-5283

Ottawa

## TRAILER FOR SALE



I have a model airplane trailer for sale, and would appreciate it if you would advise your fellow members. I live in Cornwall and my phone number is 613-933-7296 and my E-mail is:

aerografixs@hotmail.com

The price is around \$700.00

Here is a link:

[http://www.geocities.com/roger\\_forgues//Trailer.html](http://www.geocities.com/roger_forgues//Trailer.html)

I need to sell it so that I can build a bigger one for my up and coming 52% Edge.

## The Ottawa Remote Control Club Presents: Combat School 101

The Ottawa Valley Fighter Pilots Association is looking for budding new fighter pilots to join us and be part of the fun and the thrilling action that is Combat. Combat is getting really big in Southern Ontario, many new squadrons have recently been formed. (See web site - 1<sup>st</sup> Cdn RC Combat Squadron) <http://publish.uwo.ca/~vchernes>

M.A.A.C. has now formed a Combat Committee and is set to accept the same rules that are in place with the AMA. (See web site for Combat Rules) <http://www.rccombat.com> This will bring us to be on par and will allow us the them to freely join in matches wherever they are held. This will also allow Combat to be part of the Nationals.



The Combat School is to be freely open to all members in the Ottawa Valley Zone  
The Combat School night will be held at the ORCC power field on the First and Third Thursday nights from 4pm-Dusk.

April 18	
May 02	May 16
June 06	June 20
July 04	July 18
Aug 01	Aug 15
Sept 05	Sept 19

The Combat School goal is bring out new pilots who wish to safely learn how to handle and learn the limits of the planes and still get the maximum fun that is to be had flying Combat. The School will gradually

bring pilots along and will introduce the rules that are needed for actual combat matches. Pilots will learn at their own pace and will learn to fly in proximity of others and learn dept perception that will aid them in the goal of getting cuts on the other pilots ribbon. This is to be a low stress way of learning the fundamentals before being put into your first combat match. We would really like to see everyone who has previously flown combat to come out. Besides sharpening your old skills your valuable experience will be of great value by the new nugget.

Come out and give it a try!!! (Warning from the Surgeon General – Combat Flying is very habit forming)

Signed by (SPARKY) Ken Park, Member of the ORCC & The Ottawa Valley Fighter Pilots Association. If you have questions you can contact me at [Ken\\_park\\_99@yahoo.ca](mailto:Ken_park_99@yahoo.ca) or (613) 823-1933

## New Product—Whiplash

Want a very inexpensive jet trainer? With the right engine the whiplash can reach speeds in excess of 200 mph. What better trainer could you have for the go fast machines? Why waste time building when you can be flying in 2 hours or less? Want a custom airbrushed whiplash of your own?

### SPECIFICATIONS

Wingspan 35"  
Length 25"  
Wing Area 570 sq. in.  
Airframe Weight 1.68lbs.  
Wing Loading 12oz/sq. ft.  
Fully molded All Composite ARF  
99% pre-built  
.25-.45 engines  
Speed 20-200+ mph

Available through Roger Forgues

[http://www.geocities.com/roger\\_forgues/Whiplash.html](http://www.geocities.com/roger_forgues/Whiplash.html)



## Here are some items you need to successfully build good flying model aircraft

### Flat building surface:

You must have a flat building surface, rigid enough to support what you are building without deforming. Next, you'll find it helpful to make it level. I consider this to be the single most important item in my shop. All the fancy tools and accessories mean nothing if you can't build it straight. I use a piece of 1/2" tempered glass, 8 feet long and 4 feet wide as my primary surface. It won't warp with weather changes, and because it's so heavy, will not lose it's alignment, once set. Metal would be even better, since you don't have to worry about breaking it. Note that tempered glass, if broken, will shatter into a million small pieces. Having had this happen, I now prefer non-tempered glass!

Even if you choose to use a balsa building board,, for example, it's imperative that it be flat, and the big surface underneath that you know is flat helps insure this. Another advantage of glass is that virtually any type of glue or chemical you spill on it can be easily scraped off with no damage to the surface. This piece of glass is very expensive. I obtained mine by calling local glass suppliers, asking if they had "scraps", and stumbled across a dealer who gave me this beautiful surface, (It was framed as a glass door) because a client had bought new doors, and he had no use for this one. Luck comes to those who are looking! (PS> Be VERY careful if you use glass. Obviously, if you drop something heavy on it, it can represent a serious safety hazard!)

### Alignment "devices":

You might do the same type of "scavenging" at machine shops in your area. You'll find that these guys who do CNC work, milling, etc., often throw away pieces of metal that can be treasures for us as modelers. For example, I've been able to obtain several pieces of "junk" metal, previously used as jigs in the machine shop, that are perfectly flat and square. A plastic drafting triangle is good, but a piece of machined steel is forever! They're durable, and also can be used as weights to hold things in alignment, as needs arise.

## Wood, Foam, Fiberglass cloth, Accessories:

Become a pack rat! (Easy for me...I'm single.) When you build something, carefully keep what you don't use. If you've been modeling for a while, you can simply use some old kit boxes to keep leftover items. But don't just throw them carelessly in a box. You'll have to eventually sort it all out anyway, so do it at the start. Keep types of wood separate, keep uncontaminated scraps of fiberglass and other cloth in a dust-free box, and keep all those pushrods, landing gear, plastic covering scraps, etc. somewhere else. You might be amazed what you can build at some point, from these "scraps". Keep plans too, as these can be a helpful reference later.

If you're not adverse to driving around your town a little, go looking for the trash bins near construction sites. Often you'll find huge pieces of foam that were thrown away, that are plenty large enough to make a set of wings, or whatever. Cake icing comes in plastic containers with lids, that can be used for storing small parts, or for mixing epoxy. You might also find plywood, plexiglass, and other bits of materials that, although they might be too heavy for model use, can be used to make shelves and boxes in your shop.... FREE!

One thing you'll need a lot of is sandpaper. (and various fillers) The secret to a great doped finish is sandpaper. The secret to a great Monokote finish is sandpaper. The secret to both a great polyester resin and great epoxyglass surface is...you guessed it, sandpaper

### Buy the best tools and equipment you can afford:

There are times that you can save money on items you need, including some outlined above. But when it comes to radio gear, adhesives, engines, and other items that can make the difference between a beautiful flying experience and a trash bag full of confetti, spend the money. You won't regret it!

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The above article comes from Mike James's web site:[www.nextcraft.com](http://www.nextcraft.com)—thanks!



Those that braved the weather to attend the March meeting, were treated to a walking tour inside the museum behind the ropes where we saw the various planes not quite yet on display. Thanks, Gerry!



At the IMAA Meeting in March at the Canadian Aviation Museum there was an impressive demonstration of cutting foam wings with curved wing tips.



Above, Left and Lower Left: Planes on display at the IMAA Meeting in March.



Combat planes made from sheet Coreplast were at Bring 'n'Brag last meeting.