



# Stetson Flyer

Stetson Flyers Model Airplane Club

October 2005



## Students with Wings

At the September meeting the student fliers who received their wings so far this year were recognized. Not all students were in attendance, but Dan Groulx (left) and Roger Marca (middle) were, shown with the CFI Maurice Edkins on the right.

## Next Meeting

Tuesday, October 25<sup>th</sup>  
7:30 pm

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

### NOTE:

***The October meeting is  
in our usual spot in the  
Bush Theatre***

## Wanted:

### Wayfarer Bipe Plans

Looking for a set of plans for a Wayfarer Bipe, RCM Plans #482.

If you have a set or know someone who does please contact Bob Butterworth at

## Annual Zone Meeting

October 23rd at C.A.M.

**!! More information !!  
!! on back page !!**

Please bring planes for  
Static Display at 10:00 AM



## Hey buddy...

Our team of Flight Instructors has an urgent need for buddy boxes and buddy box cables. If you have any you would like to donate please contact Maurice Edkins at 613-841-3264 or email [tolespin@magma.ca](mailto:tolespin@magma.ca)

## Coming Stetson Events...

October 23 <sup>rd</sup>	Zone Meeting—CAM
October 25 <sup>th</sup>	Regular Meeting
November 29 <sup>th</sup>	Regular Meeting
January 1 <sup>st</sup>	First Flight Competition
January 31 <sup>st</sup>	Regular Meeting
February 28 <sup>th</sup>	Regular Meeting
March 28 <sup>th</sup>	Regular Meeting
April 25 <sup>th</sup>	Regular Meeting

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

## Club Officials and Contacts

<b>President</b>	Scott Clarke	613-824-5114
	president@stetsonflyers.com	
<b>Vice-President</b>	Greg Marshall	613-729-9105
	vicepresident@stetsonflyers.com	
<b>Secretary</b>	Pete Tessier	613-443-1472
	secretary@stetsonflyers.com	
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	treasurer@stetsonflyers.com	
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	vicepresident@stetsonflyers.com	
<b>Chief Flying Instructor</b>	Maurice Edkins	613-841-3264
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	webmaster@stetsonflyers.com	
<b>Newsletter</b>	John Jackson	613-445-5726
	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:**

\$70.00 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.

**Use the back door to the museum!** To get to the back door follow the roads around to the extreme left side of the museum. Pass through the gate in the fence and proceed to the back door.

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**  
EXCEPTIONAL INTERNET

## Newsletter Questions and Answers

### **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!

### **How do I open the electronic newsletter?**

You *the latest version* of the free Adobe Acrobat Reader software installed on your computer. You can download this from:

<http://www.adobe.com/products/acrobat/readstep2.html>

If you are using a dial-up modem, this may take about 30 to 40 minutes to download.

### **Why do I get errors opening the newsletter?**

Most likely you have an older version of Acrobat – perhaps version 3 or 4. Please the install latest version as described above. It usually fixes all the error messages when printing or opening the newsletter.

### **I used to get emails about club events, but now only get a printed newsletter – what happened?**

Mostly likely your email address changed or failed and we were not given a new one. When this happens we revert to printed newsletters. To get back on to electronic distribution, just send an email to [editor@stetsonflyers.com](mailto:editor@stetsonflyers.com). By default, those with email addresses will be notified when the electronic version is ready for download. You can ask to

## Minutes Stetson Meeting Sept 27 2005

Meeting was opened at 7:45 pm Pierre Voyer, seconded by Gerry Nadon

Group accept the minutes of the May meeting as published in the Newsletter

This meeting is the first of the 2005-2006 season.

### President's report

Zone Fun Fly was a success, 50 registered Pilots on Saturday, Sunday's attendance was very low but was expected due to weather. Financially MAAC broke even and the canteen brought in \$120.00 to our club. Thanks to all that helped out.

### Giant Rally (report by Gerry Nadon)

We had 30 registered Pilots for both Saturday and Sunday. We were 50 for the Saturday Pig Roast. Thanks to Richard Robichaud from Discount Hobbies for his donation of the meal and his hard work cooking and preparing the meal. Thanks also to Dave Asquini and Ed Whynott for all their prep work and also to Ford Sumerville (Slim) for manning the impound. Richard Hinz for registration and Eric Zappe for the canteen. Thanks to all others who helped out.

The Event brought in \$514.00 to the club coffers. Gerry also noted that the Giant Rally has always been profitable event and that so far the Event has made over \$4300.00 for the Club.

Scott Clarke singled out how much Richard Robichaud (Discount Hobbies) has been involved in supporting our club. Richard has donated a trainer, buddy box and cables for the Wings Program. Richard has also donated this month's door prize, an electric foamy kit; which was won by Maurice Edkins.

### Ground School

Maurice reported that it was a slow start to the summer due to the weather but quickly picked up. This year we had 16 new student, 7 of them have at this point received their wings. Maurice thanked Norm Khil for being there every single student night and also helped out other nights of the week. Thanks also went out to Rick Ramahlo for his help on many of those evenings. Pictures of new pilots Dan and Roger were taken with Maurice.

### Treasurers Report

Account balance is at 2600. GIC around 7100.00 and has been renewed for another year. Rick mentioned how well off we are this year considering our balance at this time last year. This due to careful planning on behalf of the executive. We had budgeted our year based on 70 members, actual so far 93 members.

### Membership

As mentioned previously we are now at 93 paid members.

### Web site

Nothing.

### Newsletters report

Nothing.

### Garbage

Scott thanked the smokers for picking up after themselves there has been great improvements. On another note there seems to be a lot of garbage left behind, we must make effort to keep our field clean.

### Language

Scott talked about being careful with colorful language especially around guest and youngsters.

### Loose ends

Oct 23 AZM Meeting. Static display see Dave Larkin. Do not forget proxy form on MAAC site if you have anything you would like to voice your opinion on but can't make it out.

- Next meeting in October is our elections meeting. Nominations always welcomed.

- November meeting Budget night.

Business part of Meeting closed at 8:09 by Ed Whynott and Mike Gratton.

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### Basic Flying Rules:

- ◆ Try to stay in the middle of the air.
- ◆ Do not go near the edges of it.
- ◆ The edges of the air can be recognized by the appearance of the ground, buildings, sea, trees and interstellar space.
- ◆ It is much more difficult to fly there.

(Sign over an ops desk at Davis-Monthan AFB, AZ, 1970) The three best things in life are a good landing, a good orgasm, and a good bowel movement. The night carrier landing is one of the few opportunities in life where you can get to experience all three at the same time.

If you are faced with a forced landing, fly the thing as far into the crash as possible. (Bob Hoover - renowned aerobatic and test pilot.)

The Piper Cub is the safest airplane in the world; it can just barely kill you. (Attributed to Max Stanley, Northrop test pilot.)

## UW's aerial robot places second in USA competition

A flying machine produced and operated by the Waterloo Aerial Robotics Group (WARG) took second place overall in the 2005 International Aerial Robotics Competition (IARC) held in late July, and WARG also received an Honourable Mention in the technical paper competition.

WARG entered the competition, held in Fort Benning, Georgia, with the support of namesake sponsors Research In Motion and QNX Software Systems Limited. WARG has a record as one of the leading teams in the IARC, having won first place in 2004. This year's competition included 20 teams from Canada and the United States.

Brent Tweddle, president and technical leader of WARG, reports: "Although, as planned, we did not fly on the day of the competition, we conducted tests and research that will be extremely valuable and will definitely give us an edge in completing our strategy."

"In 45 minutes of in-depth analysis of our technical presentation, the judges were unable to identify any major flaws, and noted that if WARG accomplishes its goals, especially with respect to our autonomous parachute, WARG will redefine the state-of-the-art in aerial robotics technology."

Georgia Tech, ranked first overall, also chose not to fly on the competition day. Simon Fraser University and Virginia Institute of Technology both achieved the first level of the competition this year, and SFU was the only team other than Waterloo to perform the first level with an entirely custom designed autopilot.

Tweddle says the IARC is designed to advance the state of the art in autonomous aerial robotics technology -- the mission set out for students to complete has to-date not been accomplished by any private or government organization. The first level requires a vehicle to autonomously fly a 3-kilometre course around a set of GPS waypoints and hold a position above a small city. For the second level, the flight vehicle needs to autonomously find, somewhere in the city, the location of a building with a symbol and a one meter by one meter open window or windows. To achieve the third level, a vehicle must autonomously enter the correct window, find a specific image inside the building and relay that image back to the judges. The fourth level requires completion of all three levels within 15 minutes; again all aspects must be done autonomously.

WARG's long-term strategy is to use a large fixed-wing airplane (which will be unveiled on September 10,

Tweddle says) to travel the three kilometres, search the city with onboard cameras, and drop a guided parachute through the open window that will then release a small ground vehicle to search the building for the required visual information. The entire technical approach will be published in the Association of Unmanned Vehicle Systems International's Unmanned Systems 2005 Conference Proceedings.

WARG is working on this system with a team of more than 100 undergraduate and graduate students from a variety of disciplines in engineering and math.

Written by Chris Redmond  
Reprinted from the Daily Bulletin



A view from WARG's aerial robot of the X that marks the target building and the windows it has to enter. On the ground watching are WARG members Michael Roberts and Suresh Joshi.

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## Are You Covered?

Author: Luella Cousins  
<http://www.skyrangersmodellflyers.com/article.php?id=62>

Having been an insurance agent for some years, I felt it was necessary to draw your attention to some of the details of your home insurance coverage with respect to your r/c flying.

Many people often think that if they have their airplanes or equipment in their vehicle and they are either stolen or damaged, that their vehicle insurance will cover them. Not so. Your vehicle insurance is just that - insurance for your vehicle. None of your personal belongings in the vehicle are covered if you are in an accident or if someone breaks into your vehicle and steals your things. The insurance responding to a claim for your belongings would be your house, condo or tenants package.

Our association, M.A.A.C. provides insurance coverage when you obtain your membership but this is strictly for your liability exposure as a remote control flyer. Liability is damage for which you would be found legally liable in a court of law. For example, if you were flying and lost control of your airplane and it hit a vehicle causing damage and for which the owner demands payment for, your liability coverage through the association would respond. The same would be true if your plane hit someone causing personal injury.

But what if, like my husband, you travel back and forth to work with your airplanes in the back of your truck so you can get a few flights in after work? What would happen if someone



## LED Navigation Lights

Nick Jones

(As published in the Jan/Feb EMFSO newsletter)

Navigation lights are a useful and attractive enhancement to any model. In addition to improved scale appearance they also extend your flying time into the twilight and beyond (very important in the winter months!).

Light Emitting Diodes (LEDs) are a good option for illuminating models, they are low-cost, lightweight and have very low power requirements compared to standard light bulbs. A typical lighting system (4 wingtip lights, tail light & landing light) only consumes 90mA – or under 1% of the static full throttle current of a Speed 400 motor!

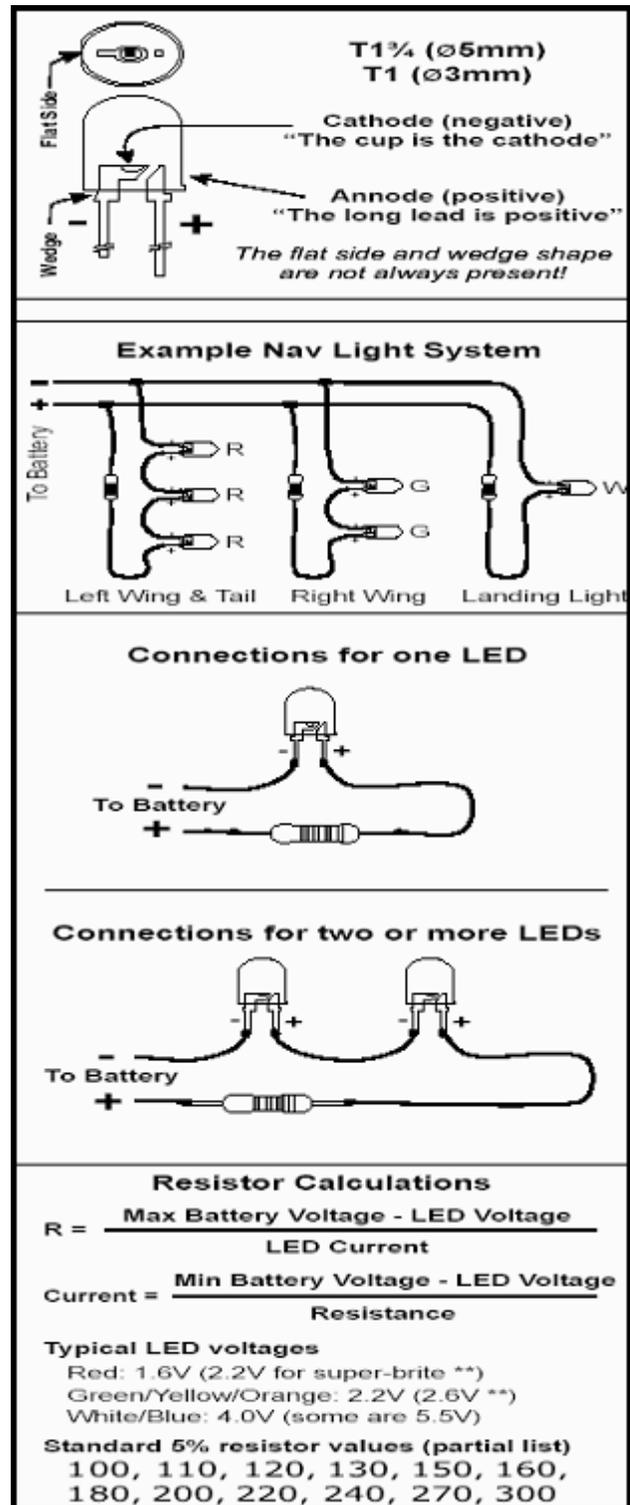
LEDs are available with diffused (milky looking) or non-diffused (transparent) lenses. Diffused lenses don't throw a beam, but are visible from almost any angle and make perfect wingtip and tail lights. Non-diffused LEDs are available with a narrow beam angle from 30 to 60 degrees (good for landing lights) and wide beam angle from 90 to 120 degrees (good for illuminating wings etc.).

LEDs have a positive and negative terminal (see illustration), and only work when the applied voltage is higher than the LED's turn-on threshold. The downside is that once an LED turns on it conducts as much current as the battery can supply – frequently destroying the LED in the process. The simplest solution is to connect a resistor in series with the LED to limit the current flow to a safe value.

There are two key requirements to consider when selecting a wiring configuration: a) the LEDs must operate down to the battery eliminator circuit (BEC) cutoff voltage (unless you like landing dead-stick without NAV lights!) and b) LED current must be between 10mA and 30mA with both a fully charged and depleted battery pack.

It is more efficient to run a number of LEDs in series, but the total of the LED voltages must be less than the BEC cutoff voltage. Many Electric Model Flyer 6 electronic speed controllers (ESC) have BEC cutoff around 5V, but high cell-count ESCs and LiPo ESCs feature higher BEC cutoff voltages. With a 5V BEC cutoff we can connect one blue/white LED, two standard green/yellow/orange LEDs or three standard red LEDs.

The resistor must be selected to limit the LED current to a maximum of 30mA (0.03 amps) with a fully charged pack, but still provide more than 10mA (0.01



amps) with a depleted pack. NiCd and NiMh batteries are fully charged at around 1.45V/cell and depleted at around 1V/cell. The lights may dim or flicker just before the BEC shuts off the motor (around 5V), but after the BEC cutoff occurs the battery voltage rebounds to about 1V/cell – so we'll design for that. A wide variety of resistors are available, for this

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application we need ordinary 1.4 watt, 1% or 5% tolerance carbon film resistors – under 10 cents each. See the table for a partial list of standard 5% resistor values.

The example lighting system (see illustration) requires three resistors, we can calculate them using the formulas provided:

Calculate R (resistance) required for use with a fully charged 8-cell pack (1.45V/cell X 8 cells = 11.6V):

Three red LEDs (1.6V each) =  $(11.6V - 1.6V - 1.6V - 1.6V) / 0.03 \text{ amps} = 226 \text{ ohms}$ , next higher standard value is 240 ohms

Two green LEDs (2.2V each) =  $(11.6V - 2.2V - 2.2V) / 0.03 \text{ amps} = 240 \text{ ohms}$  (it's a standard value)

One white LED (4.0V) =  $(11.6 - 4.0) / 0.03 = 253 \text{ ohms}$ , next higher standard value is 270 ohms

Now make sure the current is > 10mA (0.01 amps) when the pack is depleted (1V/cell X 8 cells = 8V):

Current for three red LEDs (1.6V each) =  $(8V - 1.6V - 1.6V - 1.6V) / 240 \text{ ohms} = 0.013 \text{ amps}$  (13mA)

Current for two green LEDs (2.2V each) =  $(8V - 2.2V - 2.2V) / 240 \text{ ohms} = 0.015 \text{ amps}$  (15mA)

Current for one white LED (4.0V) =  $(8V - 4.0V) / 270 \text{ ohms} = 0.015 \text{ amps}$  (15mA)

The second set of calculations confirm that the three resistors will work well for this application.

Tips:

- Two lights at each wingtip (red left, green right) clearly shows bank and angle of attack
- Landing light angled down at 45 degrees or more illuminates the ground helps you judge altitude when landing
- Measure the actual voltage drop of your LEDs in operation
- Use very thin magnet wire to connect the LEDs, just scrape or sand off the coating, wrap around the lead and solder
- Make sure the lights work when the battery is depleted, do this test on the ground!!

LEDs and resistors are available at electronics stores and some surplus stores or you can order them online at [www.digikey.ca](http://www.digikey.ca), [www.mouser.com](http://www.mouser.com) and [www.newark.com](http://www.newark.com) (search for "resistor 5% 1/4 XXX" where XXX is the value you want)



Thunder Tiger Canada presents "The International Indoor RC Shootout" in the Radio Control Modeler Flying Arena at Canada's largest RC exhibition - The Hobby Show, November 4 to 6, 2005 at the International Centre, Toronto.

This invitational competition will bring top flyers together to vie for over \$5000.00 in prizes including \$1000 to the International top shooter. Flyers will be required to present a free style demonstration choreographed to music, after which they will have to complete the "plane crushing" obstacle course! The RCM Flying Arena was so popular last year that there is a line up of flyers who want to "show their stuff" to the 25,000 visitors at the Hobby Show. For RC car and truck fans, The Hobby Xtreme Car and Monster Truck dirt track presented by Offroadrc.ca will be a hit with monster trucks catching air flying over hovering helicopters.

Back for the 27th year is the Radio Control Sports Boat Pond and Show complete with subs, destroyers, sailboats and fast electric balloon busters ...even blimps flying over the water! For more information check out the web site: [www.thehobbyshow.com](http://www.thehobbyshow.com).

## Games for Fun Flys

Sampled from <http://rcreport.ws/funfly.htm>

### MUSICAL AIRPLANES

Fill the sky with old airplanes. A horn is blown, and all aircraft must land, Last plane down is eliminated. Continue till all but one plane is eliminated.

### BALLOON BUST 2

Tie a thirty foot length of toilet paper to a helium party balloon and release it. Give a contestant two minutes to cut as many pieces as possible. Harder than it looks...

### FAST AND SLOW

Plane flies a straight course twice. First pass is for all out speed. (Diving plane is allowed.) Second pass is flown slowly as possible, maintaining reasonable altitude and course. Largest difference in the two times wins.

# maac

Ottawa Valley Annual Zone Meeting 2005  
Sunday October 23rd, 2005  
Canada Aviation Museum  
11 Aviation Parkway  
Ottawa

## Program

10.00 am: Registration, do-nuts & coffee, Silent Auction.  
10.30 am: Panel discussion "All About Electrics"  
11.45 am: Silent Auction closes. Settle up  
12.00 Noon: Chicken Lunch  
1.00 pm: Annual Zone G Meeting

Model  
Display

Chicken  
Luncheon

**\*\*NEW\*\***  
Silent Auction

Bring your surplus modelling items and sell them. All bids will be in writing. Items will be on display and people can bid as they browse. No junk please.

**\*\*NEW\*\***  
Electric Aircraft  
Panel Discussion

Have your questions answered by the experts. Offer your own ideas. All welcome.

## Agenda

1. Opening remarks
2. Establish a quorum
3. Approval of 2004 minutes
4. Business arising from minutes
5. Zone Directors report
6. Synopsis of club reports
7. Nominations to committees
8. Special presentation
9. Safety code update
10. Insurance update
11. Hall of Fame nominations\*
12. Leader member nominations\*

13. Resolutions
  14. Recommendations
  15. Election of Zone Director
  16. Assistant Zone Directors
  17. The 2006 MAAC AGM
  18. Upper Canada Fun Fly 2006
  19. New business
  20. Closing remarks
  21. Adjournment.
- \*Documentation for eligibility is required. Ten years minimum service to MAAC in case of Leadership.\**



**September meeting shots**—Greg shows off his latest camera plane (above and bottom left) while Ed Whynott's electric helicopter is laid bare for all to see.