

The News Letter of the Burlington Radio Control Modelers Club Box 85174 Brant Plaza, Burlington, Ontario, L7R 4K4

Editorial

The flying season approaches. Do you know where your aircraft is? And, if you know where it is, do you know what shape it's in? Living in an apartment, it is not difficult for me to find mine and I am going through each one checking everything I can think of. Question: what should one be looking for? Now, all that expertise resident in our membership should be able to come up with a reasonable check list, hints and tips. Any volunteers to contribute to your club's newsletter?

As always, I'm looking for photographs and articles. I can be reached at 416-622-3705 or by E-mail: cragg@inforamp.net or s-mail to suite 2010, 820 Burnhamthorpe Road, Toronto, M9C 4W2.

Correction

Art' Titmarsh's phone number published in the "Executive Members" with the February edition is wrong ~ I flipped the last two digits. His phone number is 905-319-2354

A revised list is on page 6 of this edition.

Your Last Chance.

To those of you who have not paid your year 2000 dues, this will be the last edition of Skywords mailed to you. See Membership renewals, page 2.

The President Writes:

Spring is sprung,
The grass is riz
I wonder where the birdies iz?

You can be sure there should be some (birdies, airplanes) at the next meeting when we have our annual Garage Sale. Even the meeting after that in May when we have the Annual Show and Tell for all the hangar queens that never saw daylight from the basements as they were being built over the winter construction period.

Toledo has come and gone with crowds and crowds of people from all over congregated in the downtown Convention Center. Many excellent examples of scale aircraft were on display, as well as sport and others. What a wonderful time to visit all the display booths, ask questions, and develop a wish list for future requirements, like Father's Day in June. Don't forget Mothers Day in May, she might like a new transmitter, fuel or even another kit for her day!!!

Next Meeting
Thursday, April 27th
Swap Meet
&
Garage Sale

Please keep your eye on the newsletter and on the web page if you have access to it for the events that abound this summer. It is a real pleasure to visit other clubs and have them return the visit when we have an event. We have been actively involved in the Tri-Club Rally for several years now and this has continued to grow. This year it is being sponsored by the Bramalea club, and should be another success.

Rumour has it that there may be a scale rally this year at one of our fields with the backing of Karl Gross, please see Peter Hagens about that.

As many of you know, Karl has not been well lately, and we wish him a speedy recovery, and back on his feet soon.

Unfortunately I will not be able to attend this coming meeting, but should anyone have questions, please feel free to address them to our Vice President, Dick Fahey, who, I am sure, will be happy to provide whatever answers he can to fulfill the need.

If you have events that need to be mentioned, please approach Glenn Richardson to satisfy your needs there.

Have a fun flight, a long flight, but mostly a safe flight.

See you nest month,

Bill Swindells

A Laugh or Two From Our Esteemed President

Change is inevitable, except for a vending machine

As long as there are tests, there will be prayer in public schools

Sometimes I wake up grumpy, other times I let him sleep

I want to die in my sleep like my grandfather, not screaming and yelling like the passengers in his car.

I didn't fight my way to the top of the food chain to be a vegetarian.

Coming Events

These are the events that I know about so far. Updates and/or corrections are welcome.

April 27 monthly meeting - "garage" sale
May 25 monthly meeting - show and tell
May 25 - 28 Mall show
June 10 - 11 Float Fly
June 16, 17, 18 Gyronuts meeting, Tillsonberg
August 5 - Tri-Club hosted by Brampton
August 26 Corn Roast
September 9 - 10 K&W Scale Rally
September 16 -17 Float Fly

MAAC Numbers

If you are a new member, please make sure that you provide Bernie Sudol with your MAAC registration number. Bernie can be reached through E-mail at bsudol@sprint.ca or you can phone him at 905-634-3245

Memberships Renewals

Members are reminded that unpaid renewal fees are now overdue and subject to a \$15.00 late payment penalty. Unless paid up, membership will lapse and former members will not be allowed to fly at BRCM's fields.

Members are reminded that the club needs 100% of its members to have MAAC membership in order to validate our insurance.

Our Members write:

This from Neil Nugent:

I have finished another Eagle 2 all in yellow with red and white stripes. I still use the rubber bands for the wings, just in case I don't see the hydro lines at Bayview. Also I incorporated larger wheels on the tricycle landing gear. The Eagle is fitted with a Thunder-Tiger Pro 46. More than enough guts for a trainer. I also installed a charging receptacle on the left side of the fuselage. I use a Ernst antenna guide thru the back of the fuselage, and joined it at the fin. All in all I can't wait for warmer weather because I'm getting itchy fingers.

This from me - Ed.

I've been trying to do a series of "tutorials" through Micro-Soft's Flight Simulator 2000. It's a bit of a bore but there is always something to learn in spite of the bugs in the program. The most compelling piece of reinforcement is the somewhat counter-intuitive long-term role of the elevator and power controls. Any experienced pilot knows that the elevator is the "speed" control while power is the "up/down" control. The simulator does a good job of illustrating these effects complete with phugoid oscillations. Now, if MS could just get cross wind effects to work and fix the bugs in the VOR instruments, we might just have a useful tool about the place.

All this brings back memories of my incredibly patient teacher (Neil Allatt) and the number of times he must have told me "you can't get down from *that* altitude; pointing the nose down will only pick up speed" usually followed by "bad approach: bad landing." Yes Neil, I *do* remember!

Gyronuts Meeting

The International Gyronuts (R/C Autogyro Pilots) will be having a "Fun Fly" at the Tillsonburg Club's field in Springfield Ont on 16 17 and 18 June 2000.

Participants from North and South America plus Europe are expected. Our club members Earl Smith, Gord Watson and Art Titmarsh will be attending.

NiCads. (How "good" is your flight pack?)

This from me (Ed)

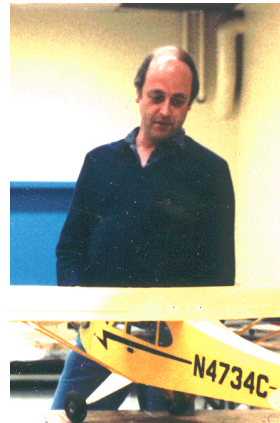
If anyone read the March editorial you'll know that I was looking for some way to test the *capacity* of a NiCad pack. I found exactly what I was looking for at the Toledo show: a device by Sirius Electronics that will discharge a pack at one of three selectable rates and provide a readout of the battery's capacity in terms of milliamp-hours. (It's advertised in RCM.) Price is US\$65.00

One of my aircraft's battery packs exhibited a capacity of only 90 mA-Hrs. I charged it from a peak detecting charger and, subsequently, from a wall adapter for some 14 hours. Each of these charge cycles produced a capacity of 583 mA-Hrs.

Subsequent testing of other aircraft showed batteries to be in remarkably good shape considering that none of them had been charged during the build season.

Alan Eves.

Died on March 27th at age 60. The following by Dick Fahey



Born in London, England in 1940, Alan survived the Blitz in London, although his parents' home was destroyed in the bombing. He was schooled in England where he earned his HNC in Mechanical Engineering. During that time he was active in aeromodelling.

Alan and his wife Shirley emigrated to Canada in 1969, and moved to Burlington in 1971. He was employed by D S Handling Systems Ltd., throughout his working career in Canada until his passing.

Alan joined the Burlington Radio Control Modelers Club in 1981, and has been active in R/C modelling until this year. He was Program Chairman for the Club in 1983, began as an Instructor in 1984, and continued in that service to the Club until at least 1993. He was elected to the Board of Directors in 1986 and served as Bulletin editor in 1987.

The photo of Alan and his J3 Cub aircraft was taken at the 1986 "Show and Tell" meeting in May of that year. Alan, and former member Peter Blissitt will be remembered for their construction and flying of sailplanes, particularly scale. He was a meticulous modeler, with artistic talent, whose dignity and gentle sense of humour will be missed by all our members who knew him well.

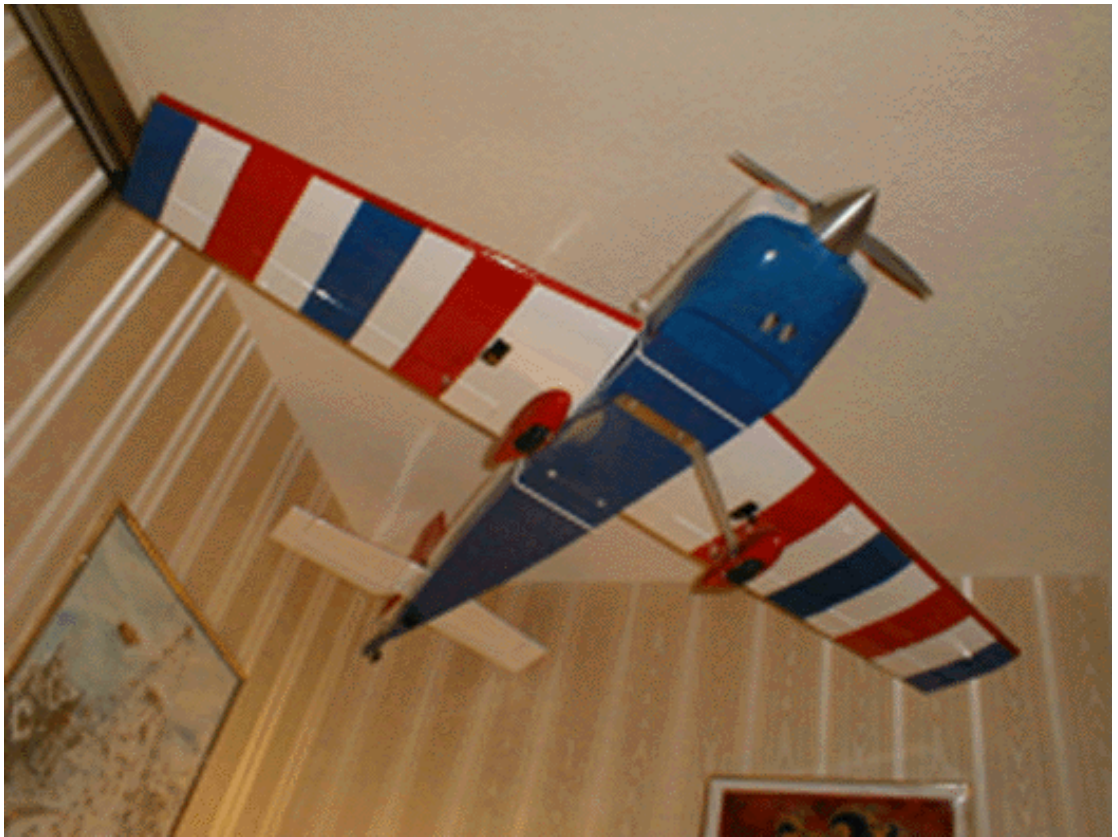
The Giles 202 project

This from me - Ed.

Well, it's done, finished, covered, balanced laterally and longitudinally, set up and all ready to fly as soon as the weather offers some encouragement. All I need then is the courage to fly it!

Here are a couple of photographs and you might be able to see that the model has barn doors for ailerons. I have set these up with plenty of exponential and, on low rates, quite a lot of differential with only a little down deflection. This is in anticipation of a fairly lively aileron response. We shall see – hopefully more than once!

As you can see, the model is suspended from the ceiling. What you can't see is my bed directly below it. It's quite a sight to wake up to.



Above is a side view showing the painted cowl and the tinted canopy covering the pilot which is an indescribable creature from the imaginative world of toy figures. (I hate painting pilot figures and I couldn't con anyone into doing it for me.)

Power is from an OS 61 FX with a 12 X 6 APC propeller.

Giles, Great Planes, Toledo

At the Toledo show, I had the pleasure of meeting *Michael and AnnMarie Cross* of *Great Planes*. They were showing Michael's latest creation: a huge scale Extra which, with an 8.5lb MacMinarelli 85CC engine installed, only weighs 20lb. It is truly a beautiful thing to see and the construction is ingenious to say the least. I also learned something about how the models are test flown before they are put into production. This is a non-trivial exercise and it would surely be an awesome sight to see a model like the scale Extra being flown by Michael Cross when he's trying to break it.

Also on display at the Great Planes booth were some helicopters. One in particular presented a fascinating mechanism with countless ball joints. While I was looking at this and trying to see what did what to which, Michael Cross remarked that he too was fascinated by the mechanics but he wasn't all that good at flying helicopters. I should have known that a comment like that coming from a TOC class

pilot was based upon a somewhat higher reference point than average. He said his only "party trick" was to fly into the barn, roll it over, then climb it into the beams, hook it on like a bat, then shut it down. So now you know what he means when he says, he is not very good at flying helicopters!

FLOATS !!!!! (or it should)

This from Norm' Harris.

Lawrence has asked me to write briefly on the subject of floats, and waterproofing that latest creation that you have prepared for our upcoming FLOAT FLY.

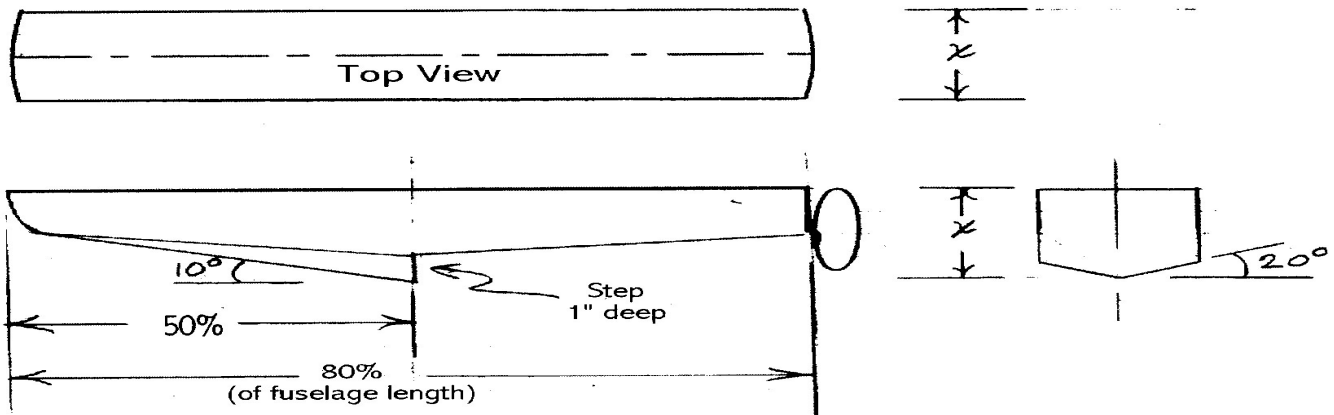
There are a thousand and one variations on the theory of float design, here is my version based on past experience.

Basic requirements based on a regular Sport type aircraft,

- 1 - float length - 80% of fuselage length
- 2 - buoyancy - 3 times the weight of the aircraft
- 3 - planing angle front underside of float 10 degrees positive
- 4 - step half way along underside of float at least 1in deep.
This step should be set 1/4in behind the CG when installing the floats.
- 5 - topside of float to be, parallel with the underside of a flat bottom wing, or parallel with the datum line of the fuselage on a semi symmetrical wing
- 6 - float spread to equal one half of the float length
- 7 - preferable a shallow V bottom on float
- 8 - strut mountings firmly bolted on to fuselage and braced fore and aft
- 9 - preferably two water rudders mounted on rear of floats, although a water rudder extended from the air rudder is very effective if not too long an extension
- 10 - ensure that floats line up exactly fore and aft in line of direction of flight

I hope that some of these points will be clearer after examining the sketch. To work out the buoyancy of the float multiply the weight of the model without undercarriage by 3, this need not be 100% perfect, you are looking to produce a float that will set reasonably high in the water to give you less drag. Next take the length of the fuselage and estimate 80%. Now, to find the float volume, multiply the weight of the model in ounces by 5, e.g. volume = 5W (approx) for example a 5lb aircraft is 80ozs, therefore the total volume of the floats should be approximately 400 cubic ins, each float would be 200 cu.in. You have the length it is now an easy matter to work out the depth and width of the overall float block, the width and depth should be equal at the step and the 10 degree positive taper taken into account in the working out of the shape see sketch 2. It is easier to purchase ready made floats. If you keep in mind the above it will help you to purchase the correct ones for your particular model.

Waterproofing your model is really an exercise in common sense, make sure that ALL holes through the shell of the fuselage are sealed, for example, push rods through the firewall, and rear fuselage should be sealed either with rubber boots made from very thin rubber tubing, or the gap between inner and outer tubing filled with Vaseline. Canopies should be checked to ensure they are sealed properly to the fuselage if in doubt put a layer of tape over the seams, and finally, the wing seating should be fitted with foam sealing tape/wing seating tape ensuring a good seal, to make doubly sure put a layer of Vaseline on the wing saddle just prior to fastening the wing down. Finally the best way to keep your aircraft dry is DON'T DUMP IT !!



Sometimes it DOES take a Rocket Scientist.

Scientists at NASA have developed a gun built specifically to launch dead chickens at the windshields of airliners, military jets and space shuttles, all travelling at maximum velocity. The idea is to simulate the frequent incidents of collisions with airborne fowl to test the strength of the windshields.

British engineers heard about the gun and were eager to test it on the windshields of their new high speed trains. Arrangements were made to borrow the gun. But when the gun was fired,

the engineers stood shocked as the chicken hurtled out of the barrel, crashed into the shatterproof shield, smashed it to smithereens, crashed through the control console, snapped the engineer's backrest in two and embedded itself in the back wall of the cabin. Horrified, Britons sent NASA the disastrous results of the experiment, along with the designs of the windshield, and asked the U.S. scientists for suggestions.

NASA's response was just one sentence: "Thaw the chicken."

Thunder Tiger Fun Tiger Review

This from Eric Palmer

A TALE OF EASY AND FUN ARF ASSEMBLY
OF A MID-WING, PROFILE EXTRA
IN YELLOW AND BLUE.

THE KIT.

A rather large light box, which contains all the parts individually, bagged in plastic. Labor is very cheap where this is built. I opened all the bags and used the largest one to throw out all the packaging, then gave the kids one box half to play with while I assembled the new toy. In retrospect perhaps I should have retained one of the bags for future use? All parts arrived undamaged and all pieces were accounted for, not a bad accomplishment considering the piece count on some of the parts was as small as one.

THE PARTS

The usual pre-built components covered in a nameless mactac with color printed on the outside. Test your favorite post flight cleaner on a piece of scrap for compatibility (unless you wish to own a white aircraft) test the solvents you may use during construction also. All my parts were warp free and all surfaces were covered, although we all would sand the sub assemblies before covering but overall the finish is good.

ASSEMBLY

Open box throw in glue close box and shake! Out falls airplane!!! Close but not quite, considering the warning that this is an advanced aerobatic model the instructions are well written with photos to illustrate each step including a introduction which covers all the tools and adhesives called up during construction. The only criticism I have is some of the photos show a completed model before that would be possible. (Remember we are experienced modelers; do not be tricked) Included with the instructions is one loose sheet with cut out locations printed on one side and a drill template on the other. Think about this before you hack it to pieces. The hinges included are the old-fashioned epoxy type, since the hinge slots were pre-cut I forged ahead and only managed to glue my shirt to my pants in one spot. God how I hate epoxy. The next step is attaching wings to the fuselage with, of course, more of the hated adhesive. Compromise is called for here – use epoxy on the joiner and CA on the wing to fuselage joint. Let the fast light glue hold everything in alignment while the slow heavy glue goes off. On to the tail and the first problem. The slot cut in tail for the horizontal stabilizer is not true. Cut some, sand some, re-check, trim some more, perfect. Now measure wing tip to stab tip. Tail control surfaces are of course mounted with epoxy. Now mount engine and landing gear in holes you previously drilled. Use thin CA to fuel proof holes and as thread

lock on nuts. Dropping large components off light aircraft makes them extremely interesting to fly. Now is a good time to take a break and sit back to admire the new toy. Mounting servos and control rods is fairly simple as all push rods are external after exiting through slots you cut in the top surface of wing (remember the two sided template?). The servos are mounted inside the wings on pre-installed servo rails, which are spaced to accept full size gear. All done, except for wheels and balancing. I always leave the round things till last. Experience has taught me the plane stays where you put it minus wheels.

FINAL SET UP

Balance by mounting a screw eye on bottom of fuselage at desired balance point and hang model on string add weight to light wing tip and to nose or tail as required. The instructions really do not cover this well in fact they are a bit terse. Control throws are given along with a recommendation to use flaperon mix and exponential set at 50% without dual rates. Some flying hints are given along with a large print stern warning not to fly the plane at full throttle; it seems bits tend to come off.

POWER PLANT

MVVS 45 with tuned pipe on 11.5x3 prop. Yes high RPM and on the pipe all the time. The engine is nicely finished but carb appears small for tuned pipe operation. Perhaps I will annoy my neighbours with a test run or two on the weekend.

COMMENTS AND FINAL IMPRESSIONS

A quick building plane with every piece needed to finish included. You supply engine, servos, glue and radio.

Standard radio gear fits easily into the spaces provided with supplied push rods of suitable size and quality. I have seen ARF kits with real junk supplied for that final all-important link.

Excellent assembly manual with the exception that all photos except those showing actual wing assembly have the wings installed upside down! Including the box cover pictures.

Covering material is heavy and prone to puncture. The base colors do not match Monocote or Ultracote, which will make patches really stand out. I cannot see going to the effort to recover a throwaway plane.

Epoxy called for in every assembly step. CA is lighter and faster. In this vein CA hinge material would have been a better choice but pre-cut slots were too wide.

FLYING

Not yet. Perhaps by show and tell night.

Burlington Radio Control Modelers

Executive

2000

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