



## The News Letter of the Burlington Radio Control Modelers Club

Box 85174 Brant Plaza, Burlington, Ontario, L7R 4K4

### Editorial

This is one of those rare occasions when I can't think of anything I want to write about! Our President is soaking up the sun somewhere in Florida and Bryan Dixon writes to me about day after day of clear blue skies, gentle breezes and temperatures in the seventy-five degree range here in paradise. Bah! I'll think of some way to nail him when he gets back.

Meanwhile, here is your February edition of Skywords. I hope you find it worthwhile.

As always, I am looking for articles from you. Talk to me at 416-622-3705 or by E-mail: Lawrence.Cragg@Sympatico.ca or S-mail to suite 2010, 820 Burnhamthorpe Road, Toronto, M9C 4W2

### The January Meeting

*A new board of directors was elected and, at the executive meeting held on February 4th, directors agreed to handle tasks as follows:*

#### Officers:

President	Harold Jones
Vice President	Lawrence Cragg and Skywords Editor
Treasurer	Brian Tailleau
Secretary	Tony Moore
Past President	Dick Fahey

#### Directors:

Howard McNamara	Wings program
Bill Montgomery	Bayview field co-manager
Peter Hagens	Bayview field co-manager
Ivan Wismayer	Bronte field manager
Tom Gwinnett	Meeting events
Dale Eldridge	Mall show organizer
Tim McTigue	Web Master
Karl Gross.	Unassigned

#### Other Assignments:

Tri-Club at Bayview	Bill Swindells
Corn Roast	Dale Eldridge, Ivan Wismayer and George Bartkus
Santa Claus Parade	Dale Eldridge

**Thursday, February 27th.  
Presentation of the 2003 Budget  
Practice Session for the Hamilton  
challenge rubber race.**

### Wings Program

Ground school sessions will be held at Bayview on May 3rd and May 10th. Bill Montgomery will handle student sign up in March while Howard McNamara is away.

### Events for 2003

March 2	Tillsonburg Swap Meet
March 5	Great Rubber Race Ham/Burl clubs
March 16	Aurora Swap Meet
March 23	M.A.A.C. A.G.M St John's NL
April 4, 5, 6	Toledo
April 23-27	TOP Gun Lakeland Florida
May 3 & 10	Wings ground school
May 25	3 Forest Lakeside Flyers Annual Fun Fly
June 5, 6	Forest Lakeside Flyers Scale rally
June 7	Oshawa Flying Club float Fly Darlington
June 14	NRMFC float fly Chippewa Creek
June 14,15	Laddie's float Fly Christie Conservation
June 21	Rose City Flyers fun fly
June 21	Port Perry float Flyers Port Perry
July 1	Canada day fun fly, Bronte
July 19	Control Line contest ???
July 19/20	NRMFC float fly Chippewa Creek
August 16	Tri Club fun fly Burlington/Oakville/ Bramalea
August 16	???NRMFC fun fly
Sept 12-14	"Inventing Flight" 100th anniversary at Wright Patterson AFB, Dayton, Ohio. See <a href="http://www.inventingflight.com">http://www.inventingflight.com</a>
Sept 13	NRMFC float fly Chippewa Creek
Sept 20	NRMFC Air show Niagara district airport

## Profile: Reg' Phillips

*This is another in a series of profiles of Club members which I hope to present from time to time.*



From Piper Cubs to a Twin Beech (turbo) 90 Reg has flown an incredible variety of aircraft in his long career as an aircraft mechanic and bush pilot. His initial pilot training was with Leavens where he built fins for D.H. Chipmunks. As soon as he had enough hours to get his pilot's license, Reg joined

Austin Airways where he flew as a mechanic on Norseman's flying into James and Hudson Bays delivering mail and supplies to the area. While flying primarily as a mechanic, Reg was fortunate to team up with a "real bush pilot" who taught him many of the finer points about flying in the bush in general. Reg eventually became a pilot for Austin Airways flying a Cessna 180 out of Sudbury flying prospectors and tourists for two or three years.



Reg and friends during an engine change on a Norseman

With mining company M.J. Boylen Engineering, Reg flew mining engineers, executives and promoters in a Grumman Goose around northern Canada. With Boylen, Reg flew Joey Smallwood all over the place for two elections as well as flying a Goose into



fishing camps. It was on one of those trips that a starter motor engaged in flight completely destroying it. The starter motor was disengaged but that left a little problem of how to get the starterless engine started. Reg solved that problem by swinging the prop while standing on the window sill and laying against the cow! Only Bush Pilots are made of this stuff!

No Canadian Bush Pilot can claim the title without having flown the immortal Beaver. Reg has accumulated some 6000 hours as the pilot of these wonderful aircraft.

Reg flew Beavers for Fecteau Transport Aerien flying out of Senne-terre and the Cache



Lake base in Chibougamau. The job was mostly servicing mining operations including the inevitable accidents both "job related" and "Saturday night related" both of which required emergency flights to medical facilities in Roberval. On one such flight at night (VFR) from Chibougamau, Reg ran into bad weather but military personnel from the Pine Tree (radar) line heard Reg's attempts to get a weather report and contacted him. They told him they could see him on radar and said the weather was clear at Roberval. They gave him a revised heading and, much relieved, on he went. There was supposed to be an ambulance waiting at the airport but Reg could see no such thing so he flew to the hospital about 5 miles away and landed on the frozen lake close by. Then he could see a path leading to the hospital entrance so he taxied (on skis) right up to the door! How's that for service? (They've built a fence since then so you can't do that now)

In 1972, Reg joined what was then called the Department of Transport's Air Accident Investigation Division. The department provided funds for their pilots to fly various aircraft types including helicopters. Yes, our intrepid subject flew a Jet Ranger among other types but he doesn't like them very much.

Here is just one of the full sized toys that Reg got to play with - a Twin Beech 90 Turbo-



Prop "King Air". Note that Reg is a little bent in this picture after spending three hours in the somewhat cramped pilot's seat.

These are just some of the highlights of Reg's remarkable career which included setting up an operational base at Eureka on Ellesmere Island only 300 miles south of the North Pole. I think it is fair to say that if there was an aircraft that could be flown in the bush, then it is likely that Reg flew it. These included the venerable DC3, a Canso (Catalina) and the D.H. Otter family - single, twin, piston and turbo powered.

In this picture, Reg is receiving an award but he says he doesn't remember what it was for! (I don't really believe that).



Reg retired in 1994 but his interest in aviation continues with the Burlington Club and the relatively difficult art of radio controlled flying.

Reg Phillips and his wife Edna live in Burlington. They have two daughters, one son and three grandchildren.

*I hope you have enjoyed reading this profile as much as I enjoyed interviewing Reg and putting the story together. Ed.*



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## OLD BECOMES NEW

*This from Ted Pritlove*

My first project this building season is to build a new LA-1 pattern plane to replace my old LA-1. I bought my first pattern plane, a LA-1, four years ago from the late Fred Madden. Fred built the model in 1989 and competed the plane in several contests. The model is of all-wood construction, a tail dragger with an OS-61 rear exhaust, pumped, tune piped engine, driving an



APC12x10 prop. A very powerful combination.

I am not a pattern flyer; however I sure like the fast, graceful, easy flight characteristics of this type of aircraft. As they say "it goes where you point it"!

Over the past two years, the model began shedding parts. It seemed after every flying session another piece of wood would fall out of the airplane. The covering became brittle, wood seams opened, and I began to fear the aircraft may come apart in the air due to the high flight loads imposed on the airframe.

Last year Jim Barritt called me to say Tom (his son and a pattern flyer) would like to give me a "project in progress". When I asked what a "project in progress" meant, he just repeated the phrase and asked if I was interested to come over and pick it up. I did! The model was a LA-1 with a fiberglass fuselage, balsa/foam wing and designed for tricycle retracts. Well these two models were similar in name only.

Tom said he had bought the kit from the late Fred Madden and had successfully competed the model in several pattern contests at the intermediate level.

In my workshop I assessed the amount of work necessary to complete this "project in progress". The fiberglass fuselage had been covered with a heavy coat of primer, but the wing and tail feathers still had Tom's covering scheme with the usual "hanger rash" and flying "nicks and dings". I first sanded all the primer off until I reached the original paint scheme. I then attempted to fit my retracts, servos and engine into the existing pockets and

spaces only to find out nothing fit. I called Jim then Tom who both suggested I talk to Helmut Schmitter who had built several LA-1's many years ago. Also Steve Plonka suggested I call Peter Schulze who apparently bought one of Helmut's LA-1. Peter invited me to his house to see a ready-to-fly LA-1. Peter was an excellent resource person and gave me an engine mount as well as several bits and pieces to aid construction. Helmut provided me with the retracts, offset engine exhaust header and some much needed construction suggestions. Now I had all the necessary major components to complete the model.

I carbon fibre reinforced areas where cracking had begun on the fuselage and belly pan, and tried to seal the oil soaked areas with CA. All the components were fitted then installed without much trouble. I painted the model using Tom's red/white/blue paint scheme and added surface decals to establish ownership. The "project in progress" took me eight weeks to complete.

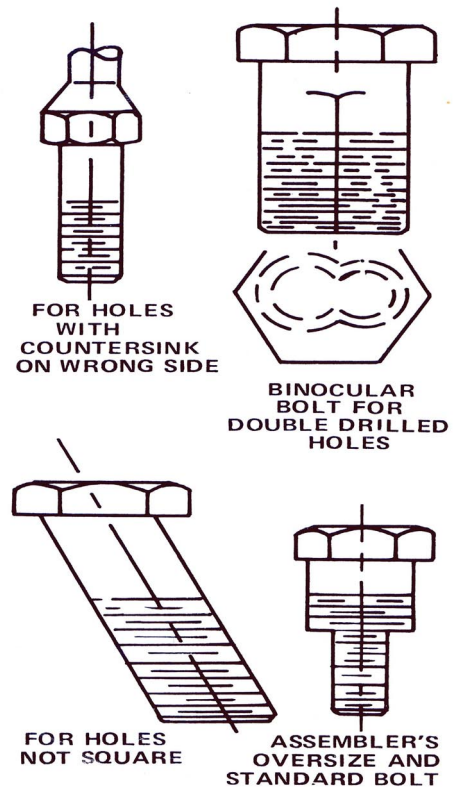
In conclusion, I would like to recognize the willingness and the generosity of our club members when a fellow modeler is in need of assistance. Feels good!

Ted Pritlove

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## If you make a mistake

*Here are some suggested remedies from Art Titmarsh.*



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## GLOW PLUGS- Why do they Fail??

by Clay Ramskill

The “ignition system” in our engines is in the main, the glow plug. The other vital ingredient, compression, actually determines the ignition timing, so it can’t be totally ignored. But usually its the plug that gives us the problems.

Why DO glow plugs fail? There are four likely probabilities, five if you count old age. Yes, old age! The plugs operate by using a catalytic (chemical) reaction with the alcohol in our fuel to maintain their heat; as the plug gets “old”, it gets more and more covered up with combustion by products (carbon, etc.) which hinders the whole process. Of the other four, LEAN RUNS is probably the most prevalent - not so much that the engine was running lean, as it was HOT. Too much heat, and the element fries and shatters, or even melts.

TOO MUCH BATTERY power is another failure mode - very related to the above paragraph. Your battery should heat the plug to a nice bright orange or red orange color; if the plug glows white hot, it just isn’t going to last. It’s bad enough that we subject a tiny little element glowing hot, to the pressures of combustion. But if we add more VIBRATION to the situation, we get trouble. Unbalanced props, loose engine mounts, etc. may all add up to plug failure, especially in combination with too much heat.

Another plug failure mode is from FOULING. The element is very small, and located down in a well. It doesn’t take much trash flying around in your combustion chamber to foul (and ruin) the plug! Aside from the obvious dirt coming through the intake or with the fuel, the fouling can come from metallic sources, usually a result of bearings coming unglued, or from excess carbon deposits in the engine. If the combustion chamber is full of caked-on carbon, pieces of that can, and do, come adrift and end up fouling the plug!

A quality plug run in a sport engine should last for dozens of flights. If they don’t, its probably not the fault of the plugs - its time to look elsewhere for the source of the REAL problem!

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## WINDY WEATHER PLANES

by Clay Ramskill

All too often, on an otherwise nice, but windy day, folks just don’t fly. Obviously, for a beginner, that’s just common sense - but for someone who has some experience, the wind should just be another challenge to add some spice to their flying.

While its easy to see that experience level has a lot to do with how much wind is too much, it may not be quite as apparent that the type of plane you’re flying also can have a great effect on your ability to handle winds. Let’s go through a bunch of air-plane design features and see which ones give us the best flying characteristics to handle winds and the resulting turbulence.

Size: In general, the larger the plane, everything else being equal, the better it will handle winds of all kinds; they just don’t “flop around” as much!

Dihedral: The more dihedral in a planes wing, the more it

is going to be affected by crosswind gusts; it is hard to keep the wings reasonably level, and therefore lineup to the runway is difficult in a crosswind situation.

Wing Loading: The higher the wing loading, the less a plane will be affected when hit with a gust.

Aspect Ratio: Lower aspect ratio (stubby) wings will be less bothered by gusts; there is less leverage for side forces to upset the plane, and the lower aspect ratio wing has a greater tolerance to changes in angle of attack caused by gusts.

Power: Pretty obvious - having the power to overcome the forces provided by the wind is a must. The same goes when you get into a sticky situation.

Lateral Control: Ailerons are very beneficial in a crosswind, in landing and takeoff phases. The ability to dip a wing into a crosswind without changing heading is essential, as is the ability to rudder the plane parallel to the runway heading while keeping wings level with aileron while landing.

Landing Gear: tri gear planes are easier to land and take off in a crosswind than tail draggers. And the wider the spread on the main gear, the better.

Maneuverability: This ones a bit harder to quantify. You want a plane with stability, yet you do need good maneuverability to cope with gusts. So you want a plane that is stable, yet responsive.

Wing Mounting: Generally, a low wing plane will handle crosswinds better. This is because the CG of the plane is nearer, in a vertical sense, to the aerodynamic center of the wing. So the low wing plane is not as easily rolled by a side gust. And by mounting the main landing gear on that low wing, we can spread them out wider.

It’s unfortunate that almost every item above is in direct opposition to the characteristics found in a lot of popular trainers, the main exception being the requirement for tricycle landing gear. But even with trainers, there are differences; compare a Senorita with the Cadet Mk2. While the Senorita may be a bit slower and a bit easier to fly, the Cadet, with its ailerons, higher wing loading, lower aspect ratio, and lower dihedral, is a far better plane flying in windy conditions.

Going a step further with the same kit manufacturer, their Cougar(.40)/Cobra(.60 size) kits embody ALL the right characteristics for windy flying.

And in closing, I offer Confucious’ only known saying about R/C flying - “To learn to fly in wind, one must fly in wind!”.

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## About Marriage

After a quarrel, a wife said to her husband, “You know, I was a fool when I married you.” The husband replied, “Yes, dear, but I was in love and didn’t notice.”

Young Son: Is it true, Dad, I heard that in some parts of Africa a man doesn’t know his wife until he marries her? Dad: That happens in every country, son.

At the cocktail party, one woman said to another, “Aren’t you wearing your wedding ring on the wrong finger?” The other replied, “Yes, I am, I married the wrong man.”

The most effective way to remember your wife’s birthday is to forget it once