



The News Letter of the Burlington Radio Control Modelers Club

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

Editorial

Happy new year everyone. We certainly got off to a good start at the Frost Fly, more about that later.

The Club participated in Burlington's annual Christmas parade and our thanks to **Peter Ranchuck** for his generous loan of tractor, float, and driver as he has done for several years past.

Charlie Chomos has contributed a number of cartoons which I'll sprinkle about here and there and I have some history examination answers from 6th grade students that might provoke a chuckle or two. I also have some photographs of the Christmas float but, unfortunately, for technical reasons, I cannot include them in this newsletter. I am grateful for these and other contributions but I want more stuff from **you**, the members. What are you building? What happened to you last season? Talk to me at 416-622-3705 or FAX 416-622-4134 or by E-mail: RCPilot@Sympatico.Ca or S-mail to suite 2010, 820 Burnhamthorpe Road, Toronto, M9C 4W2

The Annual General Meeting

The January meeting is our Annual General Meeting and you are receiving official notice of this meeting with this mailing or reading of this newsletter.

At this meeting, the "old" executive will present the budget for the year 2002. The executive will then offer a slate of candidates who have agreed to serve on the board for year 2002. This is done to simplify the election process but in no way implies a done deal nor does it prevent nominations from the floor for alternative candidates. However, if you're going to nominate a member for a particular office, please ensure that your nominee is willing to serve if elected. With nominations closed, the meeting will proceed with the election. **Only those members who have paid their 2002 dues are eligible to take part**

After the election, the meeting will be adjourned then reopened under the new executive and one of the first orders of business will be approval of the budget (presented earlier) to effectively create a mandate for the new treasurer.

Trophies

The Herb Stoneham award will be presented to the senior who has contributed substantially to the club.

The Cliff Moore award will be presented to the member who has best contributed to the club over the past year.

Thursday, January 24th. Annual General Meeting Presentation of the 2002 Budget Election of new board of directors

The President Writes:

I'd like to take this opportunity to thank our hard-working Board members for their contribution to the club, in time and effort, since January '01. Officers (other than your writer) are as follows: Vice President - Harold Jones, Secretary - Bill Hemp-hill, Treasurer - Ivan Wismayer, Past President - Bill Swindells. Board members: Bud Childerhose (Wings Program Chairman), Lawrence Cragg (Skywords Editor & Webmaster), Kurt Fritz (Frequency and Property Chairman), Peter Hagens (Bayview Co-Manager), Howard McNamara (City Liaison and Meeting Host), Bill Montgomery (Bayview Co-Manager), Art Titmarsh (Bronte Field Manager) and Ted Toth (Related Groups Liaison). While not on the elected Board, Bernie Sudol attended often, and kept us informed of membership records; as did Brian Taillieu, who agreed to stand for Treasurer in '02, and was getting a feel for the financial management of the Club this coming year. A number of the above persons have agreed to continue to serve the Club on the Board for '02 and, as is customary, a slate of prospective candidates will be presented to the Club at the Annual Meeting January 24. During the Election portion of the meeting you are free to nominate additions to the slate, but we request that you have permission and agreement in advance of the Club member you wish to nominate. Again my personal thanks to the Board members completing their terms for '01, for their attendance, wisdom, and good management, in a year which has seen some rough going at times. Well done guys! Bear in mind that the newly-elected Board are your representatives at the decision-making level. Contact any one of them, at any time, to report matters which you feel should be brought before the Board. This past year Board meetings were held on the first Tuesday of each month, and it seems likely that will continue. Board meetings are open to all Club members, but are usually held in small rooms, so get your opinions to the Board members of your choice. Help make our democratic structure work.

Richard Fahey

Annual Frost Fly

This from Art Titmarsh

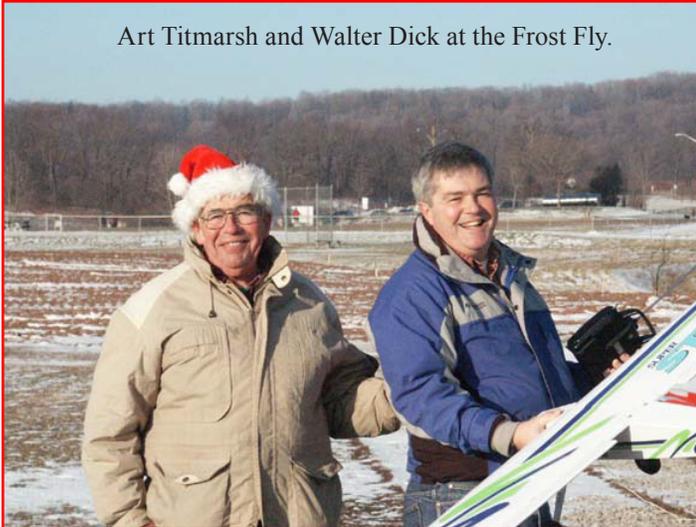
The "Frost Fly" was a huge success, big crowd right up to 1.30 in the afternoon, It was cold but sunny and not much wind, lot of guys flew, including some guests from the Dundas club with their electric planes including a terrific electric helicopter.

Tony Pitarri brought Chilli, and Bud Childerhose brought some too, George Payne looked after the coffee and Hot Chocolate. As usual I wore "Shorts" which made everyone 10 degrees colder.

Ho Ho! All in all a great day.

Cheers; Titty bang Bang

Art Titmarsh and Walter Dick at the Frost Fly.



6th Grade History

Delegates from the original 13 states formed the Contented Congress. Thomas Jefferson, a Virgin, and Benjamin Franklin were two singers of the Declaration of Independence. Franklin discovered electricity by rubbing two cats backward and declared, "A horse! divided against itself cannot stand." Franklin died

The nineteenth century was a time of a great many thoughts and inventions. People stopped reproducing by hand and started reproducing by machine. The invention of the steamboat caused a network of rivers to spring up. Cyrus McCormick invented the McCormick reaper, which did the work of a hundred men. Louis Pasteur discovered a cure for rabbits. Charles Darwin was a naturalist who wrote the Organ of the Species. Madman Curie discovered the radio. And Karl Marx became one of the Marx Brothers

Coming Events

These are the events that I am aware of. I need your help to fill this out. I would like to include all events that are within reasonable reach. When I get dates, I'll arrange accordingly. Ed.

April 5, 6, & 7 Toledo

June 15 & 16 Laddie's Float Fly

July 1 Canada fun fly, Bronte Park

September 7 & 8 Kitchener/Waterloo scale rally

Olean

Tri-Club

Corn Roast

Mall Show

Oakville scale rally

Oakville pattern contest

Worlds scale rally

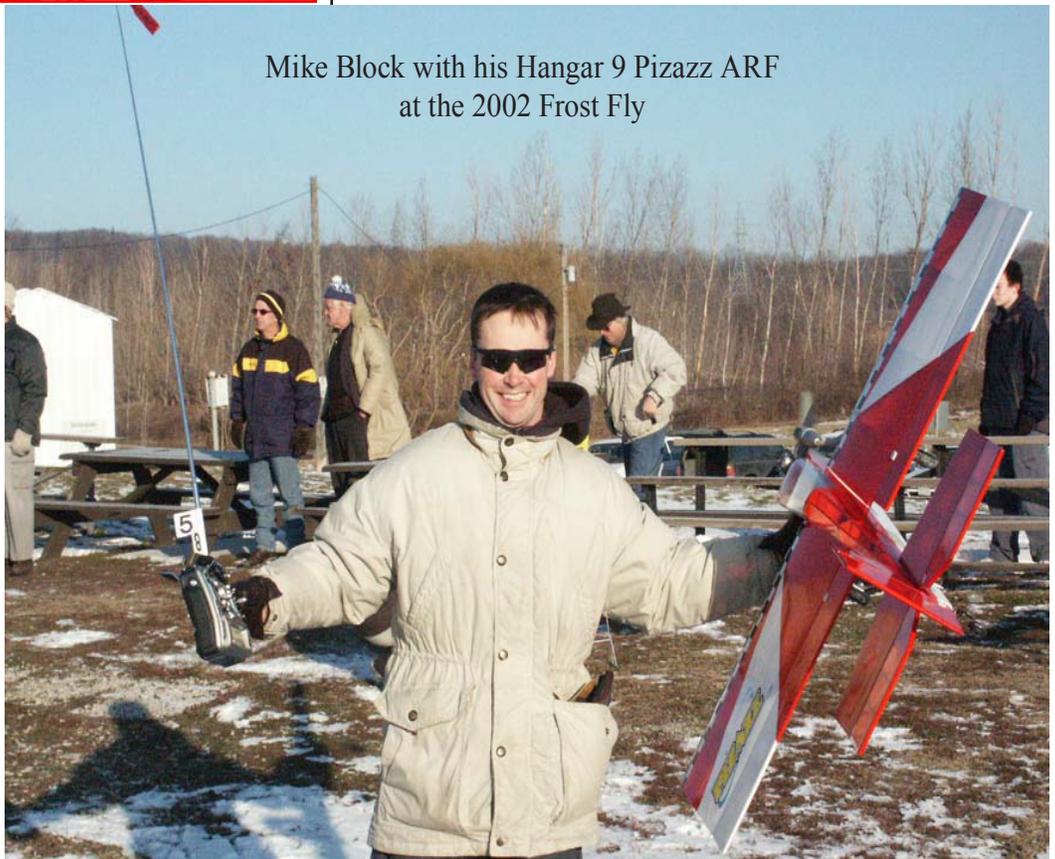
Quinte Radio Control Jet Rally

More 6th Grade History

It was an age of great inventions and discoveries. Gutenberg invented removable type and the Bible. Another important invention was the circulation of blood. Sir Walter Raleigh is a historical figure because he invented cigarettes and started smoking. Sir Francis Drake circumsized the world with a 100-foot clipper.

Queen Elizabeth was the "Virgin Queen." As a Queen she was a success. When she exposed herself before her troops they all shouted "hurrah."

Mike Block with his Hangar 9 Pizazz ARF at the 2002 Frost Fly



The Rudder:

This from Bill Montgomery. The original author is unknown so we'll just credit this to an Internet source.

Once you have been flying for a while, you will discover that there are basically two classes of sport pilot, those who routinely use rudder, and those who do not. Granted, when most students begin to fly R/C, their emphasis should be on using aileron and elevator control, and indeed, a mastery of these two primary controls is essential before the student is ready to learn to coordinate rudder control with ailerons and elevator.

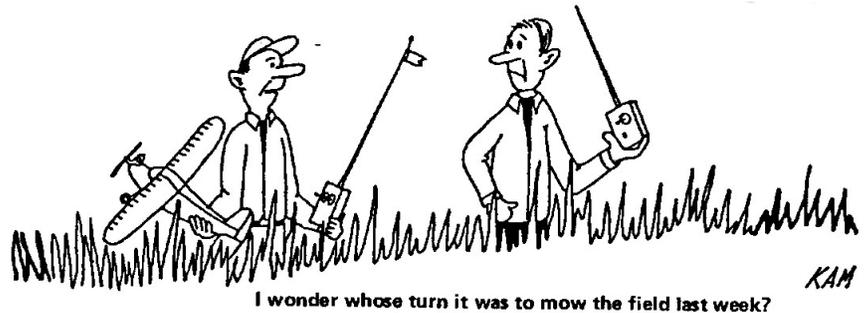
If you carefully observe the more accomplished fliers out at the field, you will probably find that most, if not all of them routinely use rudder. This is for several reasons. Firstly, consistent takeoffs require the use of rudder to keep the plane centred on the runway regardless of whether your plane is a tri-gear model or a tail-dragger. With a tail-dragger however, the air currents passing by the rudder during the takeoff roll actually steer the plane as opposed to the nose wheel on tri-gear models. Accordingly, takeoffs with a tail-dragger usually require a bit more rudder skill as compared to a tri-gear plane. Secondly, "flatter" turns can be accomplished when a bit of rudder is used. These flatter turns are also safer, remember the dangers of banking too steeply. Thirdly, precise landings can only be accomplished with continuous use of the rudder during landing approaches, keeping the wings level when the plane is less than 10 feet from the ground. Hence on all landing approaches, the rudder is used to steer the plane toward the centre line of the runway, not the ailerons.

Fourthly, the more-advanced manoeuvres routinely require rudder control of one sort or another. These manoeuvres include co-ordinated turns, spins, snap rolls, knife-edge flight, flat-inverted flying, stall turns, and several other manoeuvres as well. Finally, and perhaps most importantly, flying in windy and gusty conditions requires the use of the rudder. Pilots who attempt to fly in extreme windy conditions without mastering the basics of rudder control are almost sure to fall victim to gravity.

Quite simply, it is just not safe for any pilot to fly in windy and gusty conditions if they do not exercise routine use of the rudder. Extreme conditions require rudder control, it is not optional. Flying in windy conditions with rudder however is perhaps one of the more enjoyable ways to fly, especially if the wind is steady and not too gusty. The plane can be made to hover like a helicopter, fly backwards, fly sideways, and land like a jump jet. So, why don't all fliers routinely use their rudder? The answer is that it is extremely difficult for many pilots to learn, co-ordinate and understand the fundamental differences in rudder flying vs. non-rudder flying, especially if they are "set in their ways."

Learning how to use the rudder effectively requires the pilot to learn to fly all over again and many pilots simply are not willing (or capable) of this "next step" toward proficient flying. You see, a beginner learns to turn his aircraft to the left by adding left aileron, followed by a bit of up-elevator. Right turns require right aileron. Indeed, this is what we have learned and mastered

up to this point in our program. However, this is not how a turn is accomplished when using the rudder. The same left turn using rudder requires that rudder be added first, before any aileron or elevator. The aircraft will then bank to the left, while holding left rudder for the complete duration of the turn, the plane will continue to bank to the left. The pilot will need to apply opposite aileron (right aileron) to maintain an appropriate bank angle and stop the tendency of the plane to continue to roll to the left. This is an example of "cross control;" a technique not too often used on full-size aircraft, but routinely used to fly R/C models due to their exceptionally responsive nature. The ailerons are thus used exclusively to regulate the bank, and not to turn the plane. The plane will continue turning left at almost any desired bank angle so long as the pilot continues to hold left rudder while simultaneously holding opposite (right) aileron as appropriate throughout the turn. During all this, the pilot will also have to co-ordinate just the right amount of elevator to maintain a constant altitude during the turn. As the turn is completed, the pilot releases all controls simultaneously, and the plane returns to straight-and-level flight. Wow look at that! Right aileron to make a left turn! Does not sound easy, it isn't for most beginners. It will require you to completely retrain your hands, and your mind. Well worth the effort, since once you master the routine use of the rudder on all your basic right and left turns, you will be capable of true "four-channel flying." You will also be able to safely fly and land most any plane, even on those windy days when many pilots choose to leave their planes at home. In order for the aspiring pilot to learn



the routine use of the rudder, he (or she) must first understand the following three basic principles of rudder control.

The rudder is the primary control used to turn the plane, not the ailerons. Ailerons are used exclusively to regulate the bank, and not to turn the plane. Ailerons; that is, opposite ailerons, are simply used to regulate and stop the roll caused by the rudder. When beginning a turn, rudder is always added first, followed by aileron and elevator as needed to regulate the bank and maintain a constant altitude throughout the entire turn. Additionally, rudder is always added at the beginning of each turn, and removed at the end of each turn. That is, when there is no rudder input, then there is no turn. These important principles are all there is to it. Do not be surprised if you find your plane heading straight for the ground on your first rudder turn! It may seem as if you never ever made a turn before! Hey, remember that first flight, the one in which you got your chance at the controls for the very first time? This flight may seem no different. Indeed, you are learning to fly all over

again, but this time, with even greater rewards to be had once you master this most difficult of all piloting skills. Do not get discouraged. Keep practising. If your plane gets out of control, simply recover using the aileron/elevator flying technique that you have mastered up to this point. In other words, when you get in trouble, just go back to "three-channel flying" for a moment, recover your plane, get back to straight and level flight, and try a rudder turn again from the beginning. After a while, you should get pretty good at rudder turns and comfortable with the whole idea of "opposite ailerons" for all your turns. After a while, watch how well you begin to fly (and land)! You have now truly accomplished what only a minority of R/C pilots will ever accomplish, the ability to use all four channels, simultaneously, with control and with confidence. Additionally, it will eventually become much easier to fly when routinely using the rudder. Once you have mastered the use of your rudder, then and only then, will you appreciate how truly difficult it is to fly a plane well using only ailerons and elevator. You will also be able to understand why pilots who have never learned to use their rudder shy away from flying in windy and adverse conditions, even if they have been flying for many years.

In conclusion, flying with rudder is difficult to learn, but easy to master once you get the hang of it. Once you get it, you will never understand how you got along without it. In other words, once you learn, it is actually easier to fly a plane with rudder than without it. Also, once the student becomes comfortable with "leading with the rudder," the plane will miraculously seem to fly better. In fact, it will fly better and in a more "co-ordinated" manner. That is what the rudder is there for! So, what is perhaps the best reason of all for all pilots to learn to use the rudder? "Because it's there!" So contact your instructor and have him demonstrate the proper use of the rudder in basic right and left turns. Get a mental picture of what his hands are doing before trying it on your own. In addition, since learning to use the rudder routinely is perhaps the most difficult of all flying skills, practice on a flight simulator if you have access to one. In addition, get your instructor to help you learn to routinely use the rudder before you become too "set in your ways "Lead with the rudder, and follow with ailerons and elevator."

Ed: Any comment? Rebuttal? Seems to me that there might be room for both. E.g. do aircraft with no dihedral behave as described herein?

Once Upon a Midnight

From Bill Montgomery

Once upon a midnight dreary, building planes with eyesight bleary, Over paint and dope and glue having fallen on the floor, While I modelled, nearly covering, there came a presence near me hovering, As if someone menacingly watching me from the door. "Tis my wife," I muttered as I headed to the door. Tomorrow night I'll build some more.

Ah, distinctly I remember, it was in the bleak November, And each and every club member came to fly their planes no more. Eagerly I wished the morrow, but it too was met with sorrow, I wished I could simply borrow, weather from the months before. Yes the bright and radiant sun, which had brought such warmth before. I guess I'll just build some more.

One morning sulken, sad, uncertain, I hopefully drew back the curtain, Thrilled me---filled me with fantastic hope never felt before; So that now, I stopped my pining, the sun stood brightly shining, I grabbed the plane I was designing, and headed out the front door, The car engine started whining, even as I closed the door. I'm glad I have to build no more.

Presently my joy grew stronger, the field was empty no longer, People had come from miles around, their planes taken out of store, I was so proud of my covering, some show off was out there hovering, And soon there was a pleasant sound, a sound that I had heard before. I was beaming, glow engine screaming as it had done some months before. 'Tis my turn to fly some more.

While turning the plane and steering, long I stood there, wondering, fearing, Dreading, wondering thoughts many modelers had thought before; Had I put my plane on charge, I haven't flown this one since March, And then it happened, I lost control, it never happened to me before, I was too eager, my charge too meagre, never plugged it in the night before. It hit the ground and was no more.

Back to the car I was turning, all my soul within me burning, If only I had pondered what the day might have in store, "Surely," I said, "surely, there is something left of my airplane." I pick up the mangled airframe, got in the car and closed the door. My heart hung low then lifted, I could go to the hobby store. I'll just go home and build some more.

-- Andrew Donatelli andrew@maldima.com <http://www.donatelli.net>

