

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

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

### Editorial

Wow! What a great season. Summer got off to a late start but once it got started we really had some pretty good weather. The Bronte field is in the best possible condition. Last year, we were looking at dried up mud and a few hardy weeds. This year, our problem is to keep the grass cut to a reasonable length. The Bayview field is also in fair shape once you get used to the dip in the paved runway. The planned closure by the City never did take place and another temporary closure planned to accommodate a film company was canceled.

We had a couple of incidents which should serve to remind all of us of the potential dangers inherent in our hobby. A 5+ Kg model flying at nearly 100 Km/hr is a potentially lethal instrument and we *must* obey rules designed to minimize the danger. We must also be aware of the fragile nature of our flying field privileges. If we are perceived to be a nuisance or a potential hazard, then our flying fields will quickly be little more than a fond memory. It is a matter of self interest of all members to ensure that anyone using our fields obey the rules. If anyone is seen to be breaking the rules, then it is *your* responsibility to tell the offender to cease and desist. The executive cannot be in all places at all times. In the event of willful disregard of the rules, the executive should be informed. The executive will take appropriate action up to revoking membership in order to protect the rest of us.

In this edition's *Our Members Write* I have included a piece written by none other than yours truly. That's OK for a start but I would like to have articles from members who have a story to tell. Surely, as the season draws to a close, there must be quite a few stories just waiting to see the light of day through your club's monthly news letter. So, let me hear from you. Otherwise, you'll just get stuff about me and you wouldn't want that would you?

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### The President Writes

Welcome back everyone. I hope it was a safe and happy time this summer and that we will all get to enjoy the comradeship with each other throughout the remainder of the year. My goodness, time flies so quickly these days. (No pun intended....) Here it is, moving toward the end of September already. Where did the summer months go? I remember not long ago, in one of the newsletters, my wondering where did the winter months go. Well they did go, and now the summer months have also gone, AGAIN! It's fast approaching fall, and the building season will soon be with us but I expect there will still be a few good flying days left.

### Next Meeting Thursday, September 28 Video & Social

Enough to drag out those hangar queens that never saw daylight this summer for at least one flight before disappearing back into the basement.

There have been numerous events throughout the summer and I hope everyone had a chance to attend at least one, visit with other fliers from other clubs, compare notes on building techniques and flying skills, and most of all renew old acquaintances. We hope to have some videos at our first meeting that exhibit some of the events that took place and show familiar faces

For me, this summer was a busy one with work taking precedence followed closely with some major medical for my better half. Even so, there was still some time to take in some exciting events such as the World Miniature Warbird Association Fun Fly at Kirkwood N.Y., and the Olean, N.Y. Scale meet, as well as our own Canada Day Fun Fly, the Tri-Club event, and the Hamilton Flying Tigers Fun Fly. I managed to get some pictures, and expect to have them on display at our first meeting at the end of the Month.

We had two members from our very own club attend the World Scale Championships in Switzerland this summer and I expect they have many memories and experiences that will last a lifetime. Other members attended many other functions and I hope they will share their experiences with us as we socialize throughout the year.

The executive have been busy throughout the summer tending to matters that pertain to the smooth running of the club and I wish to thank them for their continued efforts and support in making our flying sites as safe as possible.

Should you have any questions, please ask one of your executive members and they will be more than willing to assist in getting the correct answers for you if it is in their power to do so.

Regards, Bill Swindells, President.

### A Champion in our midst.

*From Art Titmarsh*

At a recent reunion and fun fly held in Pennsylvania U.S.A, Charlie Chomos, was presented with the prestigious "Special Achievement Award" from the Vintage Radio Control Radio Society, a group of veteran R/C engineers, model designers and fliers.

Charlie's prowess in restoring historical and antique radio control equipment and flying them in a "Chomos built" 1964 design won the admiration of all the modellers in attendance. Known as "Mr Canada", Charlie, the only Canadian participant, reflected the esteem these world renowned pioneers have for Charlie's accomplishments. Canada and Burlington R/C Modellers in particular should be proud to have such a gifted and internationally acclaimed modeller in our club.

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## Coming Events

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

September 30 Zone Meeting  
October 12 monthly meeting  
November 23 monthly meeting  
December 14 monthly meeting

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## Our Members Write

*This from me - Ed. (aka Lawrence)*

It's been quite the season, my third in the hobby. Again, it was a season of learning with the help of congenial companions. The birds in my hanger are in pretty good shape. I started out with six, lost two, and built one so I'm only one down (so far). My objective for this year was to fly my Giles 202 in a reasonably competent fashion. With its thin, tapered wings, I thought it would be a handful. I also thought that its light construction would make it highly vulnerable to a crash. Well, it survived one nasty crash and one dead stick landing into the weeds that ripped off the landing gear. As to being a handful, it's really quite a nice aircraft to fly. At slow speeds, it will mush and will fall out of a turn as you might expect but it doesn't snap or do anything nasty. At the time of writing, I'm still trying to explore the envelope without hurting it. The Giles is powered by an OS 61 but I think it would like to have something bigger.

I have a 40 size Extra 300S ~ an ARF from Great Planes. This is a bit of a handful and I never feel relaxed while flying it. It has incredibly tiny elevator deflections to achieve control. I'll get back to it another day.

When I just want to enjoy flying without being constantly challenged I fly my Ultra Sport 60 powered by a Saito .91 four stroke. This model is affectionately known as Pussy Cat and is a delight to fly.

For crazy stuff, I have a SIG "Somethin' Extra." In fact, I have two of them. The SE is a blast to fly. It will do anything you like yet it will land at a walk if that's what you want to do. It's a tough little bird and seems able to withstand incredible G forces.

Best of all, I've enjoyed the company of club members. I'm still in the very early phase of learning aerobatics and I'll take all the advice I can get.

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## The Annual Tri-Club Rally

*This report (?) by your editor who wuz there.*

This year's event was hosted by the Bramalea club at their neat facility on the east side of Bramalea Road just north of Countryside Drive. The field is neatly fenced, includes a well built shelter complete with a wind speed and direction indicator, two "repair stands" and the pilot stations are complete with concrete start-up pads. The whole area has been professionally built with money evidently being the last thing on anyone's mind. It was done by the township!

The field is quite small and somewhat intimidating since it is bounded on two sides by a *very* deep ravine. The scene was summed up by our own inimitable Art Titmarsh when he told me not to go down there because if the mosquitoes didn't get me, the alligators would. However, in the event, I didn't see anyone disappear into the ravine.



Bramalea members put on a well organized and a thoroughly enjoyable event. Burlington was well represented with fourteen members attending. Art flew his autogyro, Bryan Dixon flew his huge Sopwith Pup, Wayne Bransfield flew one of his "little" Cubs while seated at his pseudo full-scale pilot's seat, and I flew my Somethin' Extra. I can't remember all the other models flown by Burlington members but Wayne Gilbank, Eric Palmer, Bill Swindells, Mike Block, Steve Plonka, Helmut Schmitter, Barry Armstrong Snr. & Jnr. Ron Sutton, and Don Mallory all contributed to a thoroughly enjoyable day.

Many thanks to the Bramalea Club for a job well done.

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## Physics Wisdom

Gravity never loses. The best you can hope for is a draw.

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## A Story

*This from one of Ernie's mailings*

In a crowded city at a crowded bus stop a beautiful young woman was waiting for the bus. She was decked out in a tight leather mini skirt with matching tight leather boots and jacket. As the bus rolled up and it became her turn to get on the bus she became aware that her skirt was too tight to allow her leg to come up to the height of the bus' first step. So slightly embarrassed and with a quick smile to the bus driver she reached behind her and unzipped her skirt a little thinking that this would give her enough slack to raise her leg. Again she tried to make the step onto the bus to discover she still could not make the step. So, a little more embarrassed she once again reached behind her and unzipped her skirt a little more. And for a second time she attempted the step and once again, much to her chagrin she could not raise her leg because of the tight skirt. So with a coy little smile to the driver she again unzipped the offending skirt to give a little more slack and again was unable to make the step. About this time the big Texan that was behind her in the line picked her up easily from the waist and placed her lightly on the step of the bus. Well, she went ballistic and turned on the would-be hero, screeching at him "How dare you touch my body!! I don't even know who you are!!" "At this the Texan drawled " Well ma'am, normally I would agree with you but after you unzipped my fly three times, I kinda figured that we was friends."

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## Bronte Field

The field is in great shape and we have experienced relatively few rule infractions. Nevertheless, we continue to see models flying beyond the boundaries and we have had at least one complaint from park users about this. As noted previously, members and guests must obey the rules to preserve our flying field privileges.

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## Bayview Field

*The following is excerpted from Dick Fahey's comprehensive journal of discussions about the field.*

The long promised - threatened? - capping of the Bayview flying field has been postponed. The work will eventually be done but it looks increasing unlikely to be done this year.

The discussions have included possible changes to take better advantage of park property. Proposed changes will be discussed with all interested parties before implementation. Some of the ideas on the table will improve our field and, in particular, the boundaries are likely to be much clearer with less likelihood of our aircraft threatening nearby activities.

A proposed temporary closure to accommodate a film crew did not take place. No further news about this is available.

## Parking

The Bayview field has a gravelled parking lot and members are reminded that parking is not permitted elsewhere.

## Run up

Engines may not be run in the pit area. If you want to run your engine(s), move the model to the designated area.

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## About Downthrust, Upthrust, & Balance:

*This is from as news group item by Bill Archibald. He wrote it in response to "why does the Eagle2 have so much down thrust, and what would happen if it were lessened?"*

About mechanical balance; there are three kinds, stable (a weight hanging from a rope), indifferent (a ball on a flat table) and unstable (a pole on your fingertip)

A trainer airplane has stable balance built in so that the trainee does not have to fly the plane all the time and has time to think what to do next. I will come back to this one later.

A sports plane has either stable or indifferent balance.

A stunt (pattern) plane should have indifferent balance on all axes, or even slightly unstable balance in order to perform certain maneuvers while hot-rodding. This means that, without inputs from the pilot, the plane does not change attitude at all and keeps flying as it did before.

About aerodynamic balance: each plane has a point where it will be in balance. If lift and thrust lines would go through this point, no extra forces would be required to keep the ship on course. Now back to the trainer plane (only the pitch part) In order to fly in such a way that it slowly returns to level flight when all controls are released, the wing needs positive incidence, and the plane weight line should pass before the aerodynamic balance point. The down-force of the tailplane is what keeps the nose level, and the wing lift keeps the plane flying.

All aerodynamic forces square with speed. If the plane flies faster, the wing generates more lift, the tailplane generates more downthrust, and the plane will zoom until the speed is back to original again. In fact, there is a nose-raising moment, that causes the pitch to change. What is needed is an extra nose-down moment to keep the plane level when speed increases. (The plane will still climb because of the extra lift, but it will not zoom)

This nose down moment can be provided by the down-thrust of the engine. The harder the engine pulls, the more down-moment it will generate. Now that is nice, because the pull required to make the plane go faster is exactly equal to the plane resistance in the air, which also changes with the speed squared because it is an aerodynamic force. By carefully trimming your plane for the required downthrust you can reach the balance between (slight) climb under more-power and (slight) descent under less-power conditions.

For sports planes, hot-rodders and pattern planes this thing has added complexity. The engine thrust line should pass through the plane aerodynamic center point. If the engine is positioned high above this point and the longitudinal plane axis as well, extra up-thrust is required (see PBY Catalina, and gliders with engine on a pylon above the wing) If the engine is below this point and line, downthrust is required, even if the wing to stabilizer relation is set up for indifferent balance.

I hope this post addresses enables you to draw your own conclusions while trimming for flight.

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## More Wisdom

There is no gravity, the earth sucks.

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## The Mad Scientist's Club

*This from Norm' Harris*

Hi just a short report of my activities with the 'Mad Scientist' kids summer camp at the Royal Botanical Gardens, Burlington

A last minute request (order) from our fearless leader Bill earlier in the summer saw me, models in hand wondering around the RGB looking for a group called the 'Mad Scientists'. I was a little apprehensive and concerned for my safety as I had received little information as to what to expect. All I knew was that there was this group of kids who wanted to know something about aeroplanes. Anyway, I met the janitor in the corridor and he guided me to the right room and on parting with a big grin on his face he said 'have fun' and quickly disappeared. The room was full of beakers, cardboard, paper, straws, in various strange shapes and concoctions, and the blackboards were covered in strange hieroglyphics. So I cleared a space to set up my models which included an indoor, rubber-powered, a twin R/C model and my 1/4 scale Aeronca Champ. I then sat back and contemplated what I was going to talk about. Ten minutes later one of the councilors arrived and advised me that we had a group of 20 kids 7 to 10 years old and they were really looking forward to meeting the 'aeroplane man'. Well shortly the gang arrived and all hell broke loose when they saw the big model and trying to keep 40 hands off the display was something else. After a hearty roar KEEP OFF and sit down, sanity returned and I proceeded to explain how planes fly, with various demos, and then moved on to how to build them etc, with a final demo of indoor flying, and moving the controls on the Aeronca. I was really amazed at the interest shown and the quality of the questions. Anyway, what was supposed to be an hours' program finished up over an hour and threequarters with a finishing big cheer and big hug from one of the kids and a request for my autograph. I finished up doing two more classes, and a request to come back next year. I must say that I thoroughly enjoyed these sessions and certainly look forward to next year. I haven't spoken to Bill since that night he called. Yes Bill I think I am still sane, and thanks, I thoroughly enjoyed it.

Signed Dr Who.

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**Engine MVVS 45** Sold direct by mvvs corporation. Price US\$94.45

*This from Eric Palmer*

**First impressions:** Nicely cast then machined outer case with a fully machined carburetor and back plate. Included with engine is a header, tuned silencer, silicone joiner, spring clamps, and rear mounting bracket which clamps onto the exhaust stinger with a silicone tube isolator to prevent metal to metal contact. All mounting screws and gaskets are also included. The head has been anodized red indicating a 45-size engine. A pretty touch, we shall see how good it looks after some lean runs have baked gunk onto the outer case. The box is made of that flimsy plain cardboard more common to imported goods from Asia and contains operating instructions with an exploded engine parts list all in Czechoslovakian, a bit useless to a monolingual savage from the New World. In keeping with common practice the needle

valve is packed loose, it is a fairly standard looking unit with an o-ring seal and perhaps a smallish knurled end to grip with oil slick pinkies.

**Close Inspection:** Back plate and head retained with metric Allen head cap screws, good; these are easy to handle and are fairly hard to mess up. Time to remove the back plate to peer inside. The back plate has a paper gasket and is very tight, a few gentle twists has the part removed. ARGGGG!!!! Lots of shiny bits where none should be, Some even between back plate gasket and case, plus a large sprinkling on all inside surfaces. Good first impressions are now gone as it looks like we have a piece of third world junk in our possession. Time to get out the light oil, solvent, soft rags, drip pan and strip down this thing to see if we can uncover a usable engine.

**Disassembly:** Fairly straightforward as I elected not to remove the crankshaft and bearings but instead used a CA applicator to squirt solvent into the bearings. Once the head is off a second set of retaining screws are visible. These hold the center section of the upper case on. This feature allows you to change from a side exhaust to a rear exhaust engine, resulting in one extra port showing up in the lower case. The sleeve was a nice slip fit in the upper case but had no index pin for positioning even though there was a notch machined into the flange to allow this. A nice looking machined connecting rod with the now standard bushings and oil holes at both ends. The piston appears to be cast then machined with the connecting rod pin held in with a snap ring on one side and a step left in the bore on the opposite side, everything fit well with no apparent slop. On to the carburetor. Held in with a draw bar, which is really the standard retention system. The carburetor is a very close fit with an internal O-ring for sealing, something not often found on this size engine. All parts were nicely finished but all interior surfaces including the barrel guide slot were well coated with small metallic bits.

**Parts Appearance:** Lots of metallic contamination on all internal surfaces with the added bonus of heavy burrs left on most machine finished edges. I will simply list what was found. Burrs and attached chips left on all sleeve ports, burrs on both sides of carburetor body plus a very sharp edge inside the case which was cutting the carburetor O-ring, a rough broken edge on one side of the case intake port against the crankshaft, steel cuttings left inside crankshaft intake passage mixed with what smelled suspiciously like cutting oil, one large chip was flushed from inside or between the bearings approx. .125X.188. After flushing then gently wiping all surfaces everything was coated with light machine oil then re-cleaned by swishing in acetone and re-wiping with a dark rag which was then closely inspected for shiny bits. All burrs were gently removed with the back side of an ex-acto knife then the remaining sharp edges were just touched with some 600 grit wet paper dipped in heavy oil. I left the rough edge on the crankcase intake port, as cleaning up the edge was beyond the ability of my tools and skills, plus removing enough material to make a clean square surface would change the intake timing. In my opinion this case should not have been assembled into a production engine as eventually a case fragment will break off and meander through the moving bits. I can only hope it finds its way out without damaging a critical piece. The shame of all this is the actual machine work has been well done but not finished well. In

my opinion, quality has been sacrificed for production speed.

**Re-assembly:** Pretty straightforward – just do not get too strong and over torque the cap screws. I coated everything with hydraulic tool oil to ease re-assembly and protect the newly cleaned bits from corrosion.

**Running:** A few flips to choke then connect battery and third flip has it running. We left glow heat connected until the throttle was past half open and R.P.M. had steadied indicating all the extra oil had cleared. Then opened throttle fully, a small twist of the needle valve had the thing running in a nice clear 2-stroke with no sag after about two minutes operation above half throttle. At full throttle hang on, with an 11.5X3 prop there is enough pull for the current air plane engine combination to fly right out of your hand. I forgot to put a new battery in my tachometer so I have no R.P.M. numbers to report. Who really cares, it works and pulls harder than expected. Noise levels are very low with the most noticeable being prop noise at the high end, the tuned silencer gives off a rather mellow tone without the sharp crackle often heard from tuned pipes. Throttle response was very linear without the strong high-end jump you typically get when an engine comes on the pipe and as advertised it will go from idle to wide open nearly as fast as the servo can travel without any mid-range sag.

**Final Comments:** This engine is potentially a world class power plant, but with all the problems I had with mine in the *as purchased* state along with it's current selling price my recommendation is stay far away. It is simply not worth the current price and unless the manufacture makes some significant improvements in their manufacturing, quality control and customer service practices do not purchase one of these products no matter what the price.

**Follow Up:** I did complain in writing to the manufacturer who completely ignored my complaint in spite of receiving it twice. My follow-up call was put through only after stating I was attempting to get a response to a written complaint. Tony was exceptionally polite but first tried to pan the problem then began to blame the engine assembly man in the US, the plant in Czechoslovakia in short everyone. The only compensation offered was a new engine, but only if I mailed back mine at my cost. I elected to retain the current engine and will follow up on its life span later. I have sent a letter to both major model magazines attention their engine column. We shall see if my problems were unique or, as I suspect, fairly widespread.

**Magazine Replies:** Both replies came back within three weeks, pretty fast as, in the case of Model Airplane News, my letter was forwarded to Bob Gierkes home address just outside of Buffalo. Bob has only reviewed one MVVS engine and surprise surprise the engine sent directly to him for the express purpose of doing a review was in the same condition as mine. He speculates that all MVVS engines are shipped in this state and advised me to obtain a copy of his review the contents of which motivated Bob Kosak from MVVS to call the editor at Model Airplane News and attack his integrity. R.C.M. replied with a multi part typed form. They have handled three engines of which one arrived with the inside of the piston packed with machine shavings. They have not received complaints like mine but have a file with many people complaining of fuel draw problems. Clarence expressed surprise

at my difficulty in obtaining a reply from MVVS and advised me he had sent a copy of my letter to the owner, he supposedly takes some pride in the level of customer service provided by his company. Six plus weeks have flown by and not a peep from MVVS. You tell me what that means.

**Final Conclusions:** Glossy magazine ads do not mean a quality product will arrive at your doorstep. Do not even consider ordering this product or, I suspect, any products from this company as their customer service appears non-existent. Imagine the frustration you would go through attempting to obtain replacement parts for a kit.

**The Last Word:** After flying the engine for the season in a funfly model I cannot fault it's overall performance. Initially I had to run the low end fairly rich and the carb barrel open to what would end up being the quarter throttle position. As run time accumulated on the engine I was able to lean out the bottom end and close the barrel thus achieving the nice smooth throttle transition we all look for. But I still cannot recommend this line; it just took too much work to realize this engine's potential. There are far better and cheaper choices out there.

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## Another Story

*Ernie Fryer again!*

An Amish boy and his father were visiting a mall. They were amazed by almost everything they saw, but especially by two shiny, silver walls that could move apart and then slide back together again.

The boy asked, "What is this, Father?"

The father (never having seen an elevator) responded, "Son, I have never seen anything like this in my life, I don't know what it is."

While the boy and his father were watching with amazement, a fat old lady in a wheel chair rolled up to the moving walls and pressed a button. The walls opened and the lady rolled between them into a small room. The walls closed and the boy and his father watched the small circular numbers above the walls light up sequentially. They continued to watch until it reached the last number and then the numbers began to light in the reverse order.

Finally the walls opened up again and a gorgeous, voluptuous 24 year old blonde woman stepped out. The father, not taking his eyes off the young woman, said quietly to his son ... "Go get your mother."

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## Zen Wisdom

Zen wisdom teaches that the answer is the reason, and the reason is just so much BS – that is, if the object of your attention says yes, you don't care why, while if the answer is no, debating the reasons won't change the answer. Which is to say, why bother?

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## And Finally

A helicopter is a collection of rotating parts going round and round and reciprocating parts going up and down - all of them trying to become random in motion. Helicopters can't really fly - they're just so ugly that the earth immediately repels them.