

# SKYWORDS

The Newsletter of :  
Burlington Radio Control Modelers Club  
P.O.Box 85174 Burlington Ontario L7R 4K4  
WWW.BRCM.org

May 2013



## *FROM THE PRESIDENT—DAVE CUMMINGS*

### THE VOTE IS UNANIMOUS—REPAIR AND EXTEND BAYVIEW RUNWAY.

Thanks to a good voter turnout and members who believe in the growth and future of our club. Mike Block chaired our April General Meeting. He did a great job explaining our Boards' goals to the membership. Pretty much everyone was on board with the decision to invest the largest single expenditure in our club's history.

A few days later our "Runway Steering Committee" had a very positive gathering with three delegates from the City. It was the most enthusiastic meeting we've been involved with. All three City department heads verbally gave us their thumbs up and just wanted to formally run our plans past the Region, who would in turn approve any excavation efforts.

Subsequently we received a new revised quote from one of the contractors who bid on our job. We were able to reduce his original quote and include completely topping the entire runway with asphalt, along with adding a five foot wide by 70 foot long asphalt taxi-way adjacent to the North West end of our field. The taxi way will be flush-level with our grass runway and allow smaller wheeled planes to safely taxi out to our paved runway, rather than having pilots walk them out when other aircraft are already in the air. All of this under budget.

Once we hear back from the City with the final go-ahead we plan on looking at the first week of June to begin our project. The contractor figures 'two days' to have his work completed but this is contingent on weather conditions. It will obviously involve closing down Bayview during the construction period and hopefully we will communicate this to you via e-mail. **DON'T FEEL GROUNDED**—we have another great field to fly at: Bronte.

Around the construction time our Pit area will be extended 23 feet to the West to center our flying stations over our new 400 foot paved runway. Yesterday I had a phone call from an Oakville club member who heard of our plans and was anxious to join our club. Given that this is our last Skywords before summer I suggest you keep in touch with fellow members for the latest field construction updates.

Have a super and safe flying summer and I hope to see you all at our fields.

Dave

### *Sometimes you get lucky.*

Some of you may remember I did an article back when I had just moved to Sarnia about a Bud Nosen Mustang I was given that was partly built. Well after many months of pondering and modifying I finally got the beast finished. It has yet to fly but I am fairly confident it will be OK.

The specs are :Wingspan 102 Inch, weight around 25 lbs, motor is an 88cc GP gas engine with pitts muffler from AMR in Montreal, retracts are Robart main and tail retracts, Futaba HS 14 channel Receiver, a mixture of Futaba and Hitec High Torque servos. The cowl came from Fibreglass Specialities. Biella 23x10 Carbon Fibre 3 blade prop, J&R Hobbies 6 inch Alli spinner.

I have a passion for the Royal Australian Air Force colour scheme as in my last 2 Top Flight Mustangs so I stuck with the same finish which is Sig Koverall and Stix It, painted with Bher external latex. The graphics came from Gwens Graphics from Niagara.

So if some one offers you a partly built airplane, take it, it sure saves a pack of money and time.

Paul



Mustang on display at Lampton Mall, Bluewater Flyers Mall show, April 13th.

(Hope she survives until War Birds, Paul - Ed.)

Paul Chitty, Past President, BRCM

**NEW MEMBERS—APRIL MEETING**



Dale Wilkinson



Doug Matthews

Some pictures of the detail on Peter Howe's AVENGER. Thanks to Peter Goodson for sending them along.



**CANUCKS IN FLORIDA.**

At Harry's winter club's flying field in Naples, Florida, Harry Barnard, Paul Chitty, Dave Cummings and Ted Pritlove. Ted says at that time there were more Canadians than Americans at the field.



Two photos of Mike Block's BAE Hawk at the April meeting.

Not a new model but Mike has added cockpit detail over this winter. Unfortunately this aircraft is too big to fly at Bayview or Bronte. Mike will fly it at Wingham airport where they have use of a full sized runway.

### DATES TO REMEMBER

May 23rd last meeting before summer

June 8 and 9 Float Fly at Christie Conservation Area

June 15 and 16 CWH Airshow at Mount Hope

July 1 Canada Day Fun Fly at Bayview

July 13 STARS 36 Annual Scale Rally—Olean, NY.

July 19, 20, 21 Warbirds and Classics over Chatham, Ont.

July 27 and 28 War Birds over the Bay at Bayview Park

Aug 2, 3 & 4 Flying Knights Hamburg NY Scale Rally

Sept 7 & 8 KW Dutchmen Scale Rally—Kitchener, Ont.

### WINGS

#### GROUND SCHOOL

Carl Finch will hold a ground school on SATURDAY MAY 25TH at 0900 at Bayview Field.

Anyone wishing to participate in the Wings Program this season, who has not previously attended a Ground School, should contact Carl through the Wings Director link on the BRCM Website or 905-466-7762.

# WARBIRDS OVER THE BAY



## **Burlington Radio Control Modelers**

**July 27th & 28th, 2013**

**At the BAYVIEW MODEL AIRPORT  
1800 King Rd. Burlington ON  
CANADA**

Event is open to military aircraft of any era, Jet and Helicopters welcome (no camo trainers please) MAAC or AMA required to fly.

No charge overnight camping (no hookups) 110v power available for charging electrics, radios etc. Pre Register for Camping is recommended.

Pre Registration \$10.00 before June 30, 2013..... \$15.00 on the day

Food, Fun, Fellowship, Raffles and Pilot draws.

*A \$5.00 per car donation will be requested at the gate for spectators to be donated to a local charity.*



This is a MAAC sanctioned event

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For further information and directions please see: [www.brcm.org](http://www.brcm.org) or contact  
Ian Brown 905-690-1249 / Co-event Director Paul Chitty 519-491-8186 [pchitty@cogeco.ca](mailto:pchitty@cogeco.ca)

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## *HAMILTON AIRSHOW UPDATE*

For all the DH 98—Mosquito Fans, I am told the Mossie will only fly at Hamilton on Saturday, June 15th. I am told she will depart for Washington on Sunday at 10 am! I know I will be there on Saturday. I have not been able to confirm this on their website.

## HOW TO BUILD AN E-POWER SYSTEM—PART 2—continued from April SKYWORDS.

The last thing we need is to pick a motor size. The capacity of a motor is determined by its ability to dissipate heat. The larger and heavier it is, the more heat it can tolerate before the magic smoke leaks out. Since in our type of flying we only use full throttle for short bursts (?) we can use a much lighter motor than what would be used for “full throttle for the whole flight” that a CJ would use.

A good rule of thumb for the type of flying that we do is to figure a motor weight of about 120 watts per oz. So for our 40 size example that would be  $900 / 125 = 7.2$  oz.(204 grams) which is about what a G32 weighs with prop adapter, mount and connectors.

The above are guidelines to get a newb started on selecting a Epower system that fits their own needs and flying style. Many here say just to copy what someone else has used, but that is not really a good idea because if it doesn't work the way you wanted how are your going to know what to change? While it does not matter for a 10 oz. park flyer, when you get into 1000 watt power systems it is probably a good idea to know how to get what is needed or you can waste a lot of time and money.

The battery size (capacity in Mah) is determined by how the weight will affect the balance of the plane. Try some dummy weights in the battery location to see how much is required for balance. No sense spending a lot of money on batteries then finding out they are too heavy or too light for the proper CG.

Allow for lots of headroom in the controller size; this can be the weakest link in the system and the most costly if it fails. A 60 amp ESC is not enough for a setup that draws 60 Amps.

KV is the most important factor in determining a power system. It is what determines what prop size is to use, how fast it will turn and how much load is placed on the batteries and controller.

Try not to pull too much more than 20C out of the batteries at WOT. On a 3300 Mah battery that would be  $20 \times 3300 / 1000 = 66$  amps. Battery life will go down significantly if you pull more from this size battery.

Try not to use more than 75% of the total capacity of the battery pack. On a 3300 Mah battery that is 2500 Mah. Try a 6 minute flight first to see how much the charger puts back in and adjust the flight time accordingly.

You can use the above to calculate an E power system for any plane as long as you have a good idea of what it's flying weight will be. For example a 60 size plane is about 6 pounds so:

$$6 \text{ lbs} \times 225 \text{ Watts} = 1350 \text{ Watts}$$

$$1350 \text{ Watts} / 22.2 \text{ (6 S battery)} = 60 \text{ amps}$$

$$60 \text{ amps} / 20 \text{ C} \times 1000 = 3000 \text{ Mah}$$

$$1350 \text{ Watts} / 125 = 10.8 \text{ oz.}$$

6 lb. plane using a 6 S system = 1350 Watts needed, 60 amps required, minimum 3000 Mah batteries and an 11 oz. motor.

A note about controllers; always size your controller at least 10% higher than the calculations say is needed. In our 40 and 60 size examples that need 60 amps, a 70 amp controller would be minimum but an 80 amp would be better and is a more popular size.”

The article I have used here in two parts was copied from a post on “THE PROFILE BROTHERHOOD” which Eric Palmer pointed out could be useful to our members. Thanks Eric. Al