The Flypaper

Newsletter of the Radio Control Flying Club of Toronto est. 1957 inc. 1967

December 2006

Meetings are held in the Cafetorium of the Alexander Mackenzie Senior Public School, 33 Heather Road, Agincourt, usually on the first Friday of each month, Oct to May (subject to change – check the Flypaper) Meetings start at 8:00 PM

For the latest club news, photos and other points of interest please check out our web site at:
http://www.rcfctoronto.ca

Introducing your New 2006 – 2007 Executive Members

Nick Chen – Wings officer / Fun Fly Organizer
John Taylor -- Refreshments
Dave Parton – Field Officer/ Grass Cutting
Don Gillion – Grass Cutting
Paul Battenberg - Treasurer
Bill Shedden - Refreshments
Romeo Ramos – Membership officer / Fun Fly Organizer

Missing is your President and your Secretary, both positions were not filled at the November 2006 elections.

Radio Control Flying Club of Toronto

2006-2007 Executive positions

President	**Vacant**		
Secretary	**Vacant**		
Treasurer	**Paul Battenberg**	**416-694-4414**	**paulbat@sympatico.ca**
Field Officer	**David Parton**	**905-430-0913**	**dparton@rogers.com**
Membership Officer	**Romeo Ramos**	**416-752-1021**	**pamrome@rogers.com**
Call Romeo only between, 7:00 p.m. to 10:30 p.m Weekdays Only.			
Wings Officer	**Nick Chen**	**647-295-4443**	**nmchen@rogers.com**

Non Executive positions

Editor/Publisher	**Roxane Parton**	**416-335-8848**	**k.parton@sympatico.ca**
Fun Fly Director	**Romeo Ramos / Nick chen**	**contact info above.**	
Refreshments	**Bill Shedden**	**416-439-7454**	**bshedden@sympatico.ca**
	John Taylor	**416-4948320**	**pjtaylor@sympatico.ca**
Program Director	**Vacant**		
Grass Cutting	**Don Gillion / David Parton**		

Meetings and other Events

January 12th 2007
Club Meeting

February 2nd 2007
Club meeting

March 2nd 2007
Club meeting

April 13th 2007
Club meeting

May 4th 2007
Club Meeting and Beauty Show

Message from the Past President

For those of you who did not attend the last general meeting, we do not have a President or Secretary. Results of the election are as follows:

Membership Officer	**Romeo Ramos**
Field Officer	**Dave Parton**
Wings Officer	**Nick Chen**
Treasurer	**myself**

Our by-laws say that we need three members to form a quorum, so we do have enough people to run the club.

Nick and Romeo said they would look after the Fun Flys. Don Gillion and Dave Parton will share the grass cutting next season. Roxane Parton said she will get out a Fly Paper every 2 months. I will continue to look after our website.

For the time being, Roxane is not going to provide a paper copy of the Fly Paper, so those members who don't have access to a computer will have to get the information from a friend. I will continue to email all members when an issue of the Fly Paper is available on our site, as long as I have current email addresses. I will also add any news items to our website.

Anyone who has ventured to the field during the last couple of weeks has probably seen a few strange sights. On either side of our driveway and all the way to the railway tracks there is a trench with many holes drilled down at least 50 feet. Well points are going to be put down these holes and water pumped out during the sewer construction. There is a lot of ground water and the water table is quite high in the area. At the moment, I think the driveway is clear again, although muddy. This past Friday there were huge steel plates piled right in the centre. They were being moved while I was there. They will be used as a trench box near the railway tracks while they tunnel underneath them. There were a few piles of dirt dumped on the small parking area on the opposite side of Passmore. The dirt was being transported by a front-end loader to an area near the tracks.

I think that anyone intending to fly during the next couple of weeks, had better be prepared for just about anything. The idea of any kind of a fence is out of the question at the moment. We are just going to have to put up with whatever happens during the next little while. The information I keep getting changes every couple of days. Latest news is that sanitary sewers are going in first, then storm sewers, and finally water mains, but now at different times. Whether they fill in the ditch completely in between jobs is anyone's guess. One fellow told me they could be there for a year.

John Riley will try to get the video projector again for the next meeting. He has another video we can watch. If any of you guys has anything of interest to share on DVD, (airplane stuff that is),bring it along. The greater the choices, the better.

Hope to see you at the next meeting.....
Paul Battenberg

From your Membership Officer: Romeo Ramos

As most of you guys know, I'm back this year as the membership officer (it was hard fought campaign to get this position back).

Any way, there will be slight changes as to how I will be conducting the membership job.

There will now be a time frame where I will take phone calls. This time frame, as noted on the application, will be weekdays only, from 7:00 p.m. to 10:30 p.m.

Another addition to this years renewal form is the section on the the channels that you use. Please make sure that you fill out this section.
We'll see how this works out.

Also, Nick and I have semi-volunteered to be the fun fly director.

My best wishes to you and your families for this holiday season.

Romeo

Field Officer: Dave Parton

Nothing to report at this time, Have a Merry Christmas and a Happy Flying New Year.

Editor: Roxane Parton

I want to thank everyone for the chance again to supply you with your bi-monthly flypaper. Sorry about bringing it to you so late this month. I am about to go into surgery and have been preoccupied with the preparation.

I would like to Wish you and your families a Very Merry Christmas and a Wonderful New Year.

GMS Engine Help

GMS Engines, although an excellent choice for an R/C engine, have an inherent problem that prevents them from shutting down. They leak air around the carburetor and the nose cone. Don't fret because fellow SPADers have a solution!

The following is a copy of a post from Tattoo on sealing his GMS engine. Read the entire thread here.

I just flew a new GMS .47 last weekend for the first time. I'll see if I can retrace everything I did...I have to admit, I didn't read the instructions...so if any of this goes against the instructions I apologize

1. Took the engine out of the box and just stared at it for awhile...what a work of art!

2. Removed the carb, dried the preventive oil that was on it with rubbing alcohol. I checked the fuel nipple and needle assembly for tightness (each took on about a flat more), and since GMS put a very nice fiber seal (washer) on them, I left them alone after tightening. Very Important I also took out the little set screw that holds the carb barrel in place, cleaned it with alcohol, and coated the threads with red RTV, and reinstalled it. Then I put a thin bead of red RTV on both sides of the carb o-ring, and on the threads of the card "clench" stud. I installed the carb, and tightened the nut on the stud while pushing the carb and engine together as hard as I could to make sure there would be no air leaks.

3. I took the muffler apart and sealed it up with red RTV and put it back together with red RTV on the threads of the nut. The vent nipple and a fiber washer [illegible]. I checked it for tightness and left it alone. Be very careful when tightening fuel nipples!!! If you tighten them too tight, they can break in half and then you are screwed because it's hard to get the broken piece out, and you have to then get a new nipple!

4. I took the back plate off, and cleaned the preservative off the mating surfaces with alcohol. I inspected the inside of the crankcase, and it was surprisingly clean for a new engine, so I left it alone. I put the backplate back on with a thin layer of red RTV as well as RTV on the threads of the 4 bolts.

5. I did not use the muffler gasket. I made sure the mating surfaces were clean and dry, and installed the muffler with a thin layer of red RTV...as well as RTV on the muffler bolt threads.

6. I checked the head bolts...they were good and tight and needed no attention, then installed a Fox miracle long glow plug

7. Installed the engine on my DPS, and rigged the throttle for full open and shut-off. I checked to make sure the carb throttle arm set screw was tight...you've got to be careful with this little set screw...the wrench that comes with the engine will strip out very easy.

8. I installed the prop using a spinner nut. I clocked the prop to stop horizontal against the engine compression stroke...this lessons the chance of breaking the prop in a hard dead stick landing. I'm using a MAS 10 x 6

9. Out at the field: I set the needle valve for 2 1/2 turns open (I don't know what the directions say, but this is where I always start). Filled the tank with 10% Omega fuel, and put several drops in the carb. I opened the carb fully, put my finger over the carb so it would suck fuel in, and rotated (not flipping) the engine about 20-30 times to get lube to all the parts inside.

10. Set the throttle a 1/4 open, put the glow driver on, hit it with my starter, and she fired right up!!! I gave it about a minute to come up to temp, then went to full throttle. It was running blubbery rich, so I slowly turned the needle valve in and let it speed up. I leaned the engine to the point it was still running blubbery, and DID NOT let it get up on step yet (two cycle)! For about 3 minutes I went from idle to full throttle over and over to flush out any manufacturer debris that might be in there. By the first half a tank I couldn't stand my plane being on the ground...I was going nuts! So I shut the engine down, topped off the tank, and started it back up.

11. I turned the needle valve in to get the engine out of 4 cycle, and just to the point of a blubbery two cycle. With the GMS, this is plenty of power to fly! I took off and flew around with a real good smoke trail from my engine running good and rich. Very important: After the first flight, I checked the muffler mount bolts, and tightened them, as the heat expansion had loosened them up slightly. I also noticed that the muffler through bolt had loosened up even with RTV on it! I tightened it, and ADDED a double nut!!! I also noticed the black goopy residue coming from the muffler vent nipple, so I very carefully tightened it about a flat. I also check my head bolts after the first few flights of a new engine...these were still tight.

12. I couldn't fuel and fly enough, as this engine was [illegible] 5 or 6 flights, the muffler bolts were staying tight, and the engine was screaming!

13. I never messed with my idle transition screw (in the middle of the carb throttle lever arm) But I did notice that as my engine was breaking in, it started to hesitate slightly and even died a couple times if I hammered the throttle too fast. I'm not worried, as the idle/transition mixture really can't be reliably set until the engine is fully broken in. Give me another afternoon and it will be all set!

As for running engines rich. I always run my engine a click or two back from max ground RPM. I also always keep an eye out for a faint smoke trail. If I don't see it, I get uncomfortable. I don't mind cleaning planes, but I do mind burning up engines...so I always run on the side or richness

Also, a word about the black gunk...it is metal particles mixing in with the fuel and oil. These metal particles come from the engine manufacturing by products (shavings/dust etc). The black gunk should disappear soon. Once an engine is broken in and running clean...when you see black gunk...it's a good indication something is loose. When two metal parts are loose and vibrate off each other (fretting) it produces microscopic metal particles which then will turn oil into the black gunk.

Composites
By Russ O'Brien

When fiberglass and epoxy are used together, the fiberglass is the major contributer and the epoxy's contribution is low by comparison. The job of epoxy is to hold the fiberglass in place by bonding layers together and for resisting shearing forces between the fiberglass and the sheeting.

Young's Modulus - is a mathematical number which is the result of dividing Stress (load/area) by Strain (elongation/original length). It is a measure of stiffness of the material, and all materials can be compared. By loading a test sample, three out of four of the values in Stress and Strain are known beforehand; all except the Elongation, or stretch of the sample under load. For high strength materials the elongation is miniscule, measured in micro-inches. Since this tiny value shows up in the denominator, it increases the value of the modulus tremendously.

Some Examples:

Material - - - - - Young's Modulus
Steel - - - - - - - - - - 30,000,000
Aluminum - - - - - - - 10-11,000,000
E-glass(typical) - - - - - 11,000,000
Epoxy - - - - - - - - - - - 200,000

In a fiberglass/epoxy structure, we have epoxy at 200,000 Modulus helping E-glass which a Modulus of 11 million. The ratio of 11 million to 200 thousand is 55 to 1. That's how much stiffer the fiberglass is than the epoxy. That's also one reason why Burt Rutan's composites "Slow Tel" rules and the West System (boats) emphasize repeated squeegee operations until no more epoxy comes out. Other important reasons are to assure straight glass fibers, a ripple-free surface, and uniform minimum weight of parts.
Density x Volume = Weight
The density of epoxy is 1.25 (times the weight of water). E-glass density is 2.54, or about twice that of epoxy. It can be seen that it is not wise to pile on excess epoxy, at 1/2 the density of fiberglass, when epoxy only contributes 1/55 of the stiffness. The message is: get rid of excess epoxy; you don't need it and it adds dead weight.