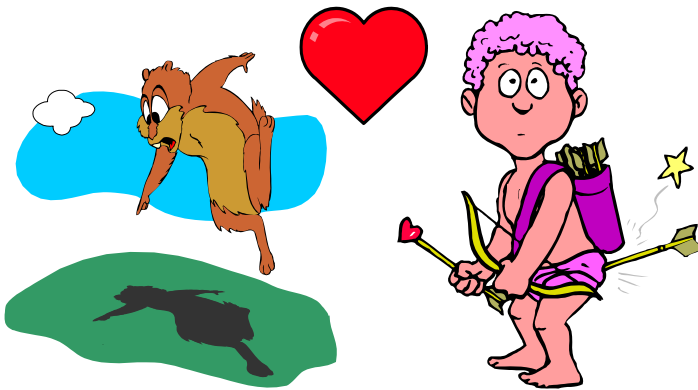


OMFC Fliteline

The Newsletter of the
Oakville Milton Flying Club
January 2010



**NOT YET SPRING.....BUT GETTING CLOSER !
HERE WE AREAPPROACHING GROUNDHOG
DAY AND VALENTINE'S DAY !!!!!!!**

January Meeting

The meeting was opened by our President, Percy Ford-Smith. We had a great member turnout but no new members or visitors this month. As there was lots to talk about in our "fiberglass session", we dove straight into the muck and mire and Dave Slote was first up.

Dave had lots of fiberglass molds with him, wheel pants, cowlings and even a fiberglass mold for a 60 size Spitfire body.

The key to a good result said Dave is to make a good "plug" [model] for whatever it is you want to make. Every blemish or mistake you leave on the plug will be duplicated on the mold. The plug can be made out of virtually any material - balsa, foam, or even regular wood. Dave picked up a spinner he had made. He needed a certain scale shape. He made the plug from wood and foam and finished it with wax and polish [which prevents the fiberglass mold from attaching permanently to the plug]. Also, something to bear in mind at this stage is the removal of the fiberglass skin from the plug. Importantly, to make life easier, you should try to remove the mold from the plug just before the resin gets really hard. Also, you cannot make say a fully enclosed wheel pant and expect to be able to remove it from the plug in one pieceit will not physically come out.....so think about making two halves or, if you do not need the "plug" again, you can just cut it in half.

Dave had a large barrel shaped cowl plug with him, plus the mold. He had merely cut into the barrel plug and drying mold length wise to help remove the fiberglass mold. So, after you have made the "plug" [model], you have to decide the process you want to use to allow the fiberglass mold to be removed from the plug. The plug has to be covered in a release material that will allow the fiberglass to be removed fairly easily. Dave has used a product known as PVA which is painted on the "plug" and/or used wax coatings with polish. Once the plug is finished to your complete satisfaction, the fiberglass can then be laid over the plug to form the mold.



Dave showed us various types of fiberglass cloth starting with 3/4 oz which is quite thin and easily molds to the surface of the plug. Additional layers of the same or thicker product may be required to create a

solid mold. Dave says if you are using one mold for wheel pants [2 halves], put extra wax in the middle so that the two halves will more easily break off. When laying on the fiberglass to the finished plug, some people [Gerard Baron] use a gel coat mixture which is very useful if the plug is detailed [i.e. has panel or say rivet impressions you want to pick up in the mold]. The gel coat is put on the finished plug just before laying on the fiberglass and building up the mold. Dave does stress that you should go easy on the gel coating for the finished product due to weight concerns. As an aside, Dave mentioned that it is important to watch the amount of hardener you use in the resin mix as, once mixed, the resin gets pretty hot. Dave uses both epoxy and resin based products for his fiberglass work [the West System is one of the popular resin based products]. Unlike the resins, epoxy has no odor and is more house friendly.

Dave then showed his Spitfire mold [two halves] which he made up by creating the body plug from wood body formers and foam, putting the foam between the body formers to make a Spitfire shape. Dave then created two separate mold "halves" from the finished plug. The final fiberglass Spitfire body is



then made in the mold halves in two pieces and then joined together. The body is then built up and strengthened at important areas such as around the wing junction,

firewall and any area where additional strengthening in the final body is required.

Dave even makes up small molds for items such as scale exhaust ports, guns, pilots, and air scoops. As noted earlier, it is best to remove the finished product from the mold just as it is setting.....this has to be a learned skill.

All during Dave's presentation, questions were fired from the floor and interesting dialogue ensued. It was impossible for yours truly to keep up, but Dave is happy to hear from anyone who needs help. Also, the stores selling the materials will be more than happy to give you information on how to do it and what products you need. Here are details on two such outfits:-

1. Composites Canada - www.compositescanada.com
ask for Jason Slomczewski Phone: 905-629-3178
2. Noahs— www.noahsmarine.com
ask for Peter Dexter Phone: 416-232-0522

The writer also understands that more information is also available on some RC site chat rooms. Don't tell anyone but Club member Alex Gorelik is employed mucking about with this stuff!

Following on from Dave, was a very scruffy looking guy who looked like he had just come in from the alley. It turned out to be our President, Percy, in his special fiberglass and painting work clothes complete with latex rubber gloves [various suggestions as to various uses were suggested].



Now Percy's talk was aimed at covering balsa sheeted airplane parts with 3/4 oz fiberglass, plus the application of thicker material for reinforcing plywood body parts, such as bulkheads/firewalls. This

can be done on building kits and also to reinforce weak areas on ARF's [Brian take note.].

Percy advised that he prefers to use an epoxy medium and had the MAS product with him. He says that this product sets up really nicely overnight. Percy had a model with him and was showing how to strengthen a bulkhead bracket by applying a thicker fiberglass material in the form of a 1" wide fiberglass tape. This is great stuff for also putting on the inside edge of cowls [even the ABS cowls can benefit from this form of strengthening] and has loads of other applications. Sure you can cut a 1" strip from regular fiberglass cloth, but this way the edges will not fray and it produces a really neat finished edge.

To mix the epoxy and hardener, Percy recommends using 2" plastic measuring cups [available at the 2 places noted above] and making small quantities of epoxy at a time. Just a 1/4 oz of epoxy mixture will allow you to cover a wing about 30" x 12". To mix epoxy, Percy uses a syringe for the hardener to get the proportions correct [he says it's a 2 to 1 ratio]. On his model, Percy used a brush to dab the epoxy all around the area he wanted to strengthen before applying the fiberglass tape. Clean up is done with acetone.....especially important with the syringe. [Percy gets his syringes at Active Surplus downtown and in the alley].

Percy also had a vertical stab with him which he had covered with 5-6 oz fiberglass cloth. This is pretty heavy stuff and weight considerations must be taken into account. He had applied the epoxy to the vertical stab by just pouring a little onto the part and then spreading it around using an old credit card and removing any excess. He had then laid on the fiberglass cloth and kept smoothing the cloth across the balsa, allowing the epoxy to come through the fiberglass. He had to keep smoothing with the credit card until virtually all the excess epoxy had been spread around and the excess removed. When dry, the part had been sanded to take off the rough spots.... and then he had applied a second and third coat of epoxy, sanding between coats. You must be careful not to sand into the cloth too much as it will lose strength.

Percy showed us a neat idea. He laid thick fiberglass/epoxy on to a piece of glass incorporating blind nuts, in effect creating a panel that could be bolted on.

For tubes, Percy rolls wax paper around say an aluminum tube, seals the wax paper with a heating iron, then carefully wraps fiberglass material around the tube two times and then applies the epoxy.....leave overnight to dry and voila!..... a fiberglass tube. Percy used this approach when looking to lock two separate wings

together through an aircraft cabin. He used 3/4 aluminum tubing and made up two fiberglass tubes from the aluminum tube. He then put the fiberglass and aluminum tubes into the airplane and it all worked out very well. Percy also secured all the tubes with fiberglass tape to lock them into the wings and cabin structure.

Percy then poured a little epoxy on to a wing panel, spread it all around with a credit card and then laid on the 3/4 oz cloth to show how relatively easy it is to apply. The idea is to keep smoothing the fiberglass material over the epoxy covered wing, which helps remove bubbles, locks the fiberglass material to the balsa sheeting and [by design] removes most of the epoxy. When dry, it should be sanded gently and then a second and sometimes a third coat is applied, again sanding between coats. Percy says he uses alcohol to thin the epoxy if need be.

Again, there were a lot of questions from the floor which yours truly could not keep up with! Lots of interest generated.

In a complete change in subject, Percy passed around a great handout for making snow/ice skis. A very simple but very effective design. The web site is :-

www.stenulson.net/rcflight/skikits.htm

Well folks, a good teaching night.... many thanks to Dave Slote and Percy Ford-Smith for great presentations.

Executive Meeting

- The March 6th Saturday Swap Meet is on track with Erik Genzer and Terry Sears. For more information, please contact either of these members.
- Looks like the Sunday, June 20th Air Show is a definite "go". More information to follow. Interested parties may contact Don Wilding or John Pretty
- Mall Show dates set for Saturday, June 5th and Saturday, June 12th. More information to follow.
- As you all know, we had some unusual expenses last year and we will be technically in the red when the final year's accounting comes in. The South Field road was approx. \$3,000. Grass cutting normally around \$5,000-\$6,000 was approx. \$7,500 and the new tables approx. \$700. So, approximately \$5,000 more than normal. Otherwise, the Club is in good financial shape.

- We are close to having a handle on the new and revised Club and MAAC rules plus modified safety issues, and these will be presented when finalized. New signs re "what to do" in the event of an accident will be made up before the start of the flying season and new first aid kits with eyewash and fire extinguishers will be placed at both fields [primarily for gasers and electricians].
- As a requirement for emergency services to find the South Field in the event of an accident, a Club sign identical to the North Field sign [although a bit smaller] is being made up for the 2010 flying season.
- February 1st meeting will have Peter Ayache talking about jets. He will have models with him.
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In Closing

Paul Foreman felt he needed more of a challenge in his advancing years and has taken delivery of this fully air powered "whatsit". We are hoping he will be able to give us all a demonstration of near vertical unlimited flight in the Spring!



Bob Zak has been contacted by Nick Leach and a chap named P.J. [both of RCTV] regarding the possibility of them getting footage of "snow flying"...planes that is! If anybody is interested in starring on TV, they could contact these guys at xten@primus.ca or at 416-536-3416.

["Monday, Feb 1st Meeting: Peter Ayache..Jets!"](#)

That's all she wrote!

OMFC 2010 Executive

President:	Percy Ford-Smith	North Field Manager:	Bill Funnell
Vice President:	John Pretty	South Field Manager:	Frank Pilih
Past President:	Don Wilding	Social Director:	Terry Sears
Chief Flying Instructor:	Brian Anderson	Field Acquisition Mgr.:	Mike McDermott
Assistant CFI:	Mike McDermott		
Web Master:	Bert Armstrong	bert@virtuhost.com	
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OMFC Meeting Dates for 2010

<u>Date</u>	<u>Event</u>	<u>Contact Person</u>
Monday, February 1st	Peter AyacheJets!	Percy Ford—Smith
Monday, March 1st	Regular Meeting	Percy Ford—Smith
Monday, April 5th	Regular Meeting	Percy Ford—Smith
Monday, May 3rd	Regular Meeting	Percy Ford—Smith

OMFC Event Dates for 2010

<u>Date</u>	<u>Event</u>	<u>Event Director</u>
Saturday, March 6th	Swap Meet	Erik Genzer/Terry Sears
Saturday, June 5th	Mall Show	Don Wilding
Sunday, June 6th	Electric Fun Fly	Jack Linghorn
Saturday, June 12th	Mall Show	
Sunday, June 20th	Air Show / North Field	Don Wilding/John Pretty
Saturday/Sunday Sept 18/19th	Glider Air Tow	Frank Pilih/Jim Eichenberg