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Skywords

November
2001

The News Letter of the Burlington Radio Control Modelers Club

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

Editorial

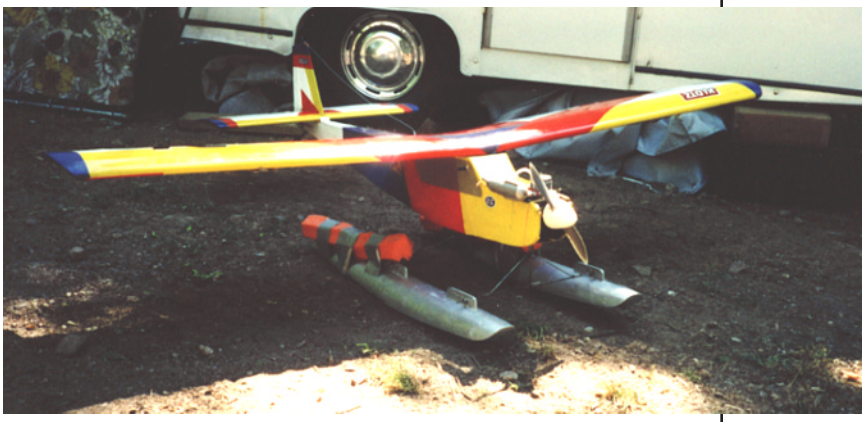
This is a confusing time of year. Is the flying season really over? Certainly, it's cold enough to discourage some of us from venturing out to the field. Yet it just doesn't seem right to start building when there may be some flying days left in the season. Personally, I'm stuck in an unfamiliar realm of indecision: it's too early to start building and too cold to fly. Meanwhile, I'll have to be content with other toys.

Let me have your contributions to Skywords. After all, it's your newsletter; I'm just the editor. I can be reached at 416-622-3705 or FAX 416-622-4134 or by E-mail: Lawrence.Cragg@Sympatico.ca or S-mail to suite 2010, 820 Burnhamthorpe Road, Toronto, M9C 4W2

Those "Poor" Mexicans!

Those of you who read Harold Jones's article last month might be interested in looking at the related web site at http://www.pegaso.com.mx Wow! It's all in Spanish but you can see riches beyond imagination. The 70 acre flying field in Toluca, Mexico is a field to dream about. You name it and they've got it: hangars, runways, equipment, tennis courts, restaurant, and more. What an organization! They seem to have combined RC flying with full size flying, cart racing, messing about with 4 X 4s and whatever else they could possibly have fun with at their superb facility.

Jealous? You bet. *Ed.*



The floats on this Telemaster were too short to support it. Solution: cut two bundles of noodles approx' 12" long and secure them to the floats with duct tape! Syl' Tuding claims it works - but only if you cut the ends at a 45º backward angle to reduce drag and increase lift. And if you believe that .....(Ed.)

Thursday, November 22nd
Rubber Race
Burlington v. Hamilton

The October Meeting

Jack Linghorne, a member of the Southern Ontario Glider Club and a member of the Electric Model Flyers of Southern Ontario, presented some interesting facts about electric model aircraft.

Jack's first topic was about the need for a readily accessible fuse to isolate the main battery from the motor. He pointed out that electric motors develop maximum torque at zero RPM - they just don't give up; can start without warning and can be very dangerous. He emphasized the need to insert the fuse as the last item on the pre-flight list and that this should be done while standing behind the model.

Jack showed some NiCad batteries that he has had for some 15 - 20 years. Batteries are expensive but, when compared to the cost of many jugs of fuel, they represent a very good long term investment. Today's cells of the same size offer nearly twice the capacity of older cells with no weight penalty.

If you are going to get into electric flight, Jack recommends that you don't buy cheap motors. They do not convert electrical energy efficiently and may only serve to reinforce misconceptions about the poor performance of electrically powered models. Brushless motors are much in favour but they require one controller per motor so multi-engined models get to be a tad expensive.

Jack Humphreys of A & J Hobbies has many years experience of electric flight and is recognized as a leading authority on the subject. His shop in Unionville specializes in electric flight.

Our own Laddie Mikulasko is very well informed on the subject. Laddie has recently carried out some measurements on various combinations of motors, gears, and propellers.

With a little bit of luck, I may be able to persuade Laddie to write about his experiments. Ed.

The 50 50 Rule:

Any time you have a 50-50 chance of getting something right, there's a 90% probability you'll get it wrong.

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.

November 25 London Model Aircraft Club swap meet, western fair grounds, London, Ont.
Toledo
Kitchener/Waterloo scale rally
Olean
Tri-Club
Laddie's Float Fly

Bayview Status

Following are highlights of meetings with the City & Regional Staff with D. Fahey and H. McNamara;

Oct 24 – Met with Ross Stephen, City of Burlington, P&R Dept. Best estimate is we will be back to normal by May 2002.

Grading will continue in the cold weather.
There is plenty of topsoil available locally, trucking cost only.
The runways will be replaced by the region. We should prepare a drawing showing our anticipated layout.

Oct 25 – Met with Gerret Buitanhuis & Art Mercer, Halton Region Eng'g;
They have been entirely dependent on Canada Brick for the progress of work. It is being done at no cost to the Region.

Grading will recommence when CB has completed stock piling of material for winter production.
Grading will continue through to end of Dec – frost is not a problem.
Aside from drainage sloping, finished grades will be level.
Topsoil will be supplied after base grading is finished, and finish grading by Region.
Seeding will be carried out in early spring.
Confirmed that runways will be graded & paved by Region once filled areas are stabilized and settled.

The only presumed costs to BRCM will be materials and labour to reinstall spectator fence, pit areas, flight stations and safety barrier. The windsock should be placed in storage.

Our Members Write

This from Kevin Taylor

A unique feature of a precision balancer is it's ability to read wind speed! This method can calculate wind speed to within 1 mph. All you need is a tachometer, balancer (suspended magnet/rod type preferably) and a xx X 10.5 prop. Only the pitch matters.

Place the prop on the balancer and set-up on a level surface with the prop turned into wind. Turn on the tachometer and read the wind speed. The wind speed with the xx X 10.5 prop will be the RPM divided by 100. Most tachometers read RPM in thousands, so the wind speed will be in 10's. For example... a reading of 0.5 on the tach is 5 mph. A reading of 1.1 on the tachometer is 11 mph. A reading of 14.4 on the tachometer is 144 mph (in which case you should run like hell for the nearest bunker you can find!)

Wings Graduates

Here are some of the instructors and students who took part in the 2001 Wings program

From the left: Kevin Taylor, Peter Hagens, Bill Montgomery, Mathew Clark, Stuart Schulhauser, Tony Moore, Gary Arthur, Jack Leadbeater, Chau Nguyen, Harry Barnard, and Art Titmarsh. Three other graduates were missing.

The President Writes

With the passing of Fred Madden on November 5, I was asked to organize an honour guard to accompany the casket from the funeral home on November 7. Since Fred joined our Club in 1976, I felt it would be appropriate to ask as many of our Charter members as time would permit, to do this.

Fred had been active in our club over the years, both in R/C and control-line flying. He was the driving force in establishing the control-line facility and took the lead in preparing and maintaining what has become a well-used circle by our members and many distinguished guests. Some of them are international champions. I plan to suggest to our Board that we dedicate the facility to Fred's memory, as The "Fred Madden Memorial Circle."

To organize the above mentioned honour guard I referred to our 1974 members list. It was a pleasure to note how many members of that year have maintained their membership and interest to date. Harry Barnard, Charlie Chomas, Clyde Halford, Harold Jones, Bob Nunnamaker, Steve Plonka, Art Titmarsh, Ted Toth, Syl Tudin, John West, Howard McNamara and your writer. Of these, Charlie, Harold, Steve, Art, Howard and Bernie Sudol were able to attend. The family were very pleased as model aviation played a major part in Fred's life. We also learned that for the past twenty years, our Fred had been a lay-chaplain at the Hamilton Detention Centre, giving counsel and encouragement to the inmates.

I was advised just today (Nov. 11) that Jim Crawford of the Flying Tigers, another of our founding members has passed away.

We have a good nucleus of long-term members who have sustained our Club over the past 28 years and hope that this number will grow and help us through the next 28!

Richard Fahey

THE BIG LIE

-by Ron Lockhart

OK, so that's a bit harsh. I'll be charitable and call it a Big Fib. You have heard it, or read it, probably many times over. Seems like we often hear, "It flew beautifully, didn't even need any trim!". Magazine articles on kit reviews or new designs like to use the big fib. Too often we read: "It practically flew right off the drawing board." Or, "The maiden flight was a dream, it didn't even need the transmitter trims changed." A minor variation is the "All it took was two clicks of left rudder and it flew great." Or, "It trimmed perfectly on the transmitter".

Don't you believe it! It is a rare event that a new airplane flies well without trim changes. It may be a proven design, properly constructed, balanced and set up according to the instructions... But, the designer can't know everything about the way it was built and the way it will be flown. It can, and SHOULD BE, trimmed, adjusted, and changed to make it fly more the way YOU want it to. The recommendations in the instructions are a good place to start, and make it highly likely that your new craft will survive its test flight. So after that first flight, now what?

TRANSMITTER TRIMS- If some of them are not close to centered, adjust that control surface so they will be closer to center. Make small adjustments at a time, one to three turns on the clevis. Adjust all control surfaces, and the nose wheel. If all the trim lever travel has been used, it will probably take three turns to get it close to center.

CONTROL SURFACE THROW- Reduce control throws on the rudder and ailerons if they are too sensitive. Make the reductions a little bit, move one hole on control horns or about three turns on the threaded stud type control horns often used on ailerons. If some controls were not very effective, or not sensitive enough, increase the throw a little. If the elevator is too sensitive, there are two possibilities- 1) Reduce elevator throw, or 2) Move the balance point, CG or Center of Gravity, forward. If the plane flew smoothly, but was sensitive to small amounts of elevator stick, then reduce the elevator throw a little. If the plane was smooth and landed going fast with most of the up elevator being used, increase the throw a little. If the plane tended to climb, would not settle into stable flight, tended to balloon on landing, or needs down elevator trim, then you likely have a tail heavy plane and need to move the CG forward. See the next paragraph.

CG/CENTER OF GRAVITY/BALANCE POINT- Tail heavy airplanes are tough to fly even for an experienced pilot. They have lots of bad habits- a tendency to lift off at too low an airspeed, balloon on landing, resist being trimmed for level flight, and so on. Move the CG forward to reduce those things. Add nose weight, or shift the battery or other equipment forward in the fuselage. If it means adding weight to your plane, do it. This is one case where the added weight is well worth it.

-by Ron Lockhart - from "the Radiator"; Atlantic City Skyblazers, Atlantic City, NJ via Clay Ramskill's "Editor's Helper"

And

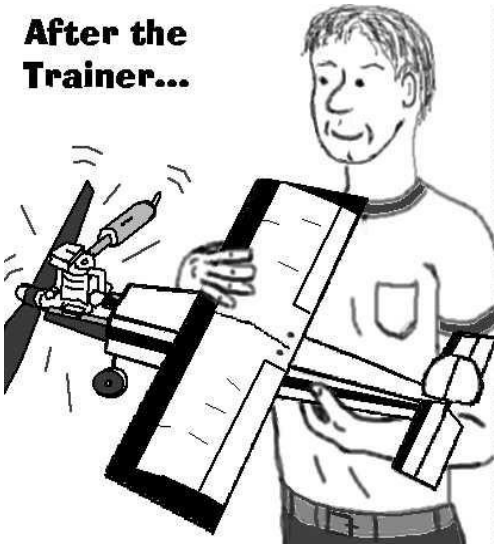
We are born naked, wet, and hungry. Then things get worse.

TOO MUCH, TOO SOON

-by Clay Ramskill

He'd done this several times before -- it was a real crowd-pleaser. Take off and immediately pull nearly vertical, climbing out almost straight up.

Aligning the 60-size "stick" with the runway, he gunned the powerful .90 4-stroke, then yanked the stick back. With a roar, the Ugly Stick pointed its nose up, but only mushed forward, barely climbing. Completely stalled. The nose began a sickening dive to the left. "I ain't got it!" he shouted as the plane crashed.



Radio problem? CG problem?

No.

All too often we see the above scenario -- after the trainer, a relatively "hot" airplane, with lots of power. And often as not, the appropriate warning sign is there -- the trainer was crashed, not worn out or sold. Then the relatively inexperienced pilot gets a "hot" plane, or an appropriate intermediate plane, but overpowered.

Perhaps there should be an intermediate training program, too. So that a pilot knows he must be able to use appropriate rudder with a strong engine. So he knows that the stall characteristics of an Extra are not the same as on his trusty Eagle 3. So that he knows how to recover from a deep stalled attitude. So that he knows not to get into that deep stall 10' above the runway.

It's bad enough that some individuals end up crashing some awfully nice hardware before they even get the chance to appreciate it properly. There is a safety factor involved also. The fewer crashes, the less likely a crash will occur in the pits, on a car, or someone's head.

Newer pilots need a bit of coaching -- sometimes they need the brutal hard facts: "Son, that plane's too much for you right now." They need some patience -- to take some time to really learn flying on a trainer or intermediate plane before moving up to "heavy iron."

More experienced flyers need to be more involved with the less experienced -- help them get the skills they need before they get into trouble.

Finally ...

Short skirts have a tendency to make men polite. Have you ever seen a man get on a bus ahead of one?

The things that come to those who wait maybe the things left by those who got there first.

Chart of channel usage.

This from data supplied by Kurt Fritz

The chart is most useful when buying a new transmitter ~ clearly, you would want to choose a least used channel so that you may avoid channel conflicts. E.g. either channel 17 or 19 look like a good choice.