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Skywords

February
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The News Letter of the Burlington Radio Control Modelers Club

How to Fly

If you want to go up, pull back on the stick.

If you want to go down, pull back a little more.

If you want to go down real fast and spin around and around, just keep pulling back.

A Superior Pilot

Is one who uses his superior judgment to avoid situations that would require use of his superior skills.

Editorial

Now that I've got those two nuggets off my chest, here goes for another edition of Skywords. I have increased the type size which should allow you to put away the magnifying glass. Next, I've mucked about with photographs to try to get better printed copy. Now let's get to the really important stuff:

The Annual General Meeting

The financial budget for the year 2000 was presented to the membership and approved by unanimous vote.

A new club executive was elected by a vote of the members present. The club's officers were directly elected. The club's directors were elected at the meeting and individual jobs were assigned at the first executive meeting.

Your new executive is listed on a separate page in this news letter in the fond hope that you will detach and keep it for future reference.

The President Writes:

As expressed during the last meeting, I wish to thank the past executive for their guidance, perseverance, trust and valuable assistance in making the 1999 year a success. Welcome to the new executive, and I am sure that we can have just as much fun if not more this year, and still assist in keeping the club on the road to continued growth.

Well here we are, by the time you read this there will be only about four months left to build floats for the June Float Fly. Wiarton Willie's successor and Puxtatownee Phil both predicted at least another six weeks of winter….GOOD. More chance for winter flying off skis! The last several weekends (at least up to the time of this typing) have been very good for weather, and snow conditions have been great for skis. There are the usual onlookers who come up to Bayview to see who is crazy enough to be out in the freezing temperatures, but we all enjoy friendly conversation over a cup of hot chocolate or coffee at the shed once it has warmed up from the heaters.

Next Meeting

Thursday, February 24th

Tune up for the great Rubber Powered competition with Hamilton to be held on March 1st at the 407 Squadron Club House, Mount Hope Airport

As was announced at the last meeting by our Vice President, Dick Fahey, the City of Burlington, Region of Halton and Ministry of Environment will begin the reconstruction of the landfill cap, commencing in August of this year. Dick was able to achieve a delay in the starting date due to the fact that we have two club members who will be attending the World Scale Championships in Switzerland in August, and will need the field until August for practice. In case you need a friendly reminder, those two members are Karl Gross and George Bartkus. In total, there will be three fliers from Canada attending, and we wish them every success, but especially, they will have a grand time meeting other fliers from around the world, and making new friends and acquaintances.

This coming meeting we will have an opportunity to 'tune' up our rubber powered aircraft for the competition the following week in Hamilton. It should be a fun evening, with lots of thrill, spills and unpredictable results from the many new aircraft. Maybe I should bring a hard hat???

Next month, on March 19th, at 2:00 PM is the MAAC Annual General Meeting being held at the Travelodge Hotel in Burlington at Brant St. and Lakeshore Blvd. We should expect a good turnout from the surrounding clubs as well as our own. This is the chance to provide your input as to how MAAC will be governed.

Keep you eyes open for upcoming events and we will make every effort to provide this information in a timely and appropriate fashion .

That's about all for this month, so fly straight, keep your wings level, but most of all fly SAFELY.

Bill Swindells
President

Coming Events

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

March 12 Swap meet Aurora Model Aircraft Club
April 8 Toledo (Bus trip available if paid by March 1st)
June 10 - 11 Float Fly
August 5 - Tri-Club hosted by Brampton
August 26 Corn Roast
September 9 - 10 K&W Scale Rally
September 16 -17 Float Fly
September 30 Zone Meeting

Who's This?

Continuing with a series of photographs of current members taken long ago, here is one of Baron Von ??? when he was flying for the nascent Luftwaffe during the 14 - 18 war!

Another Good Book?

This one is only available on the Web ~ it is not available in hard copy form. It's at www.monmouth.com/~jds/how/htm/power

Dave Parry sent me this link to "See How It Flies" by John S. Decker. I looked at it and was so fascinated with it that I printed the whole thing. I made reference to it to my friend Harry Curzon and promptly got into the perennial argument of Bernoulli versus downwash schools. Whether you subscribe to one or the other theory, it's a damn fine read.

Frequency Pegs

If you haven't already done so, please make your application for peg(s)
Contact Bernie Sudol
at
905-634-3245

Awards:

Colin Lee was given the Herb Stoneham award for his enthusiastic support of the club. Bronte flyers in particular appreciate Colin's unfailing good humour and his own personal Tea Service.

Bud Childerhose got the Horses Arse award for emulating Icarus at Bayview. I.e. he lost it in the Sun. Then, to add insult to injury, Wayne stepped on it!

For Sale:

Sears Air Compressor and separate 10 gallon air tank with regulator valve to reduce pressure. Suitable for air brushes etc. or regular air tools. $75.00 for the two items. Norm' Harris 905-637-2868

Wanted to buy:

Hi, My name is Darryl Blanchard and I belong to the Regina Windy Flyers of Sask. I'm looking for a Super Tartan Twin (44 cid) engine. I will buy parts or complete engine running or not. You can contact me by e-mail or phone 306-949-3352.

Here's Harry ~ About Flaps

Here is some more from my favourite oracle: Harry Curzon. Harry writes for RC Model World and is a pilot of both RC and full size aircraft. This exchange is clearly about full sized aircraft but the principles remain valid.

A question was asked about flaps:

I was flying the P-51 on RF (sic) and I started using flaps. When and what should I expect on landing? I know that they allow me to land at a steeper angle and that is slows down faster, but is it normal to force it down with some down stick?

To which Harry replied:

The flaps should only be put down once you have lowered speed a bit from usual, otherwise the plane will balloon severely. There may be a change in elevator trim when flap is applied. Because flaps alter the incidence of the wing to the fuselage, it will mean flying with the nose lower than it would without flap, indeed you may well have the fuselage pointing slightly down even when flying level. Therefore be prepared for the plane to appear to be approaching more steeply than its actual path through the air.

The flaps will add drag so be prepared to use a slightly higher throttle setting than you would for the same speed/flight path without flap. This may mean a landing approach with power on whereas you may simply have idled the engine previously. Depending on the model, the flaps may allow a very slow speed at touchdown - if this is the case then be prepared for the effectiveness of the controls to be greatly reduced.

Raising flaps reduces lift and will make the plane drop below its original path, so if you have to do a go-around, get the power on and establish a positive rate of climb before you raise the flap. Beware in case the plane pitches up strongly when you apply full power.

If you go dead stick I would suggest not using flaps unless you really feel desperate to. If you go dead stick after lowering the flaps, do not raise them! Yes, you will reduce the drag, but you will lose too much height to compensate for it and will touch down further short of the runway than if you had left the flap on.

Harry

Which was followed by a follow on question:

Anyway, the flaps will theoretically allow a greater angle of attack to landing.

Harry again:

I think you mean a theoretically lower angle of attack! Flaps makes no difference to the AoA at which the airflow will stall. However by creating two different AoAs on the wing, the flapped portion and the un-flapped portion, it means the stall will occur whenever the portion with the highest AoA reaches the stall. Since the flaps are inboard, it helps keep the outer portion with the tips at a lower AoA and reduce the possibility of a tip stall.

When the wing stalls, the "violence" of the stall is usually much more pronounced when flaps are down. Lowering the flaps increases the camber of the wing section, which increases its lift co-efficient. This means that at the same AoA and speed, it will produce more lift than without flap. Or, another way of having it is to fly at the same speed but at a lower AoA, or to fly at the same AoA but at a lower speed to generate the same lift.

This is what flaps do to reduce the landing speed, though more sophisticated versions also increase wing area. As far as full-size is concerned, a major benefit of flap is that it changes the incidence of the wing to the fuselage, meaning that the fuselage must point downwards in order to get the wing back to the pre-flap AoA, and this improves the view over the nose during the approach.

Harry

What the heck is Schnuerle porting?

This question was asked in the news group and, among the many replies, I thought this one from Pé Reivers of Arcen, south-east Netherlands sounded like he understood it. With his permission, here is his response:

A ported, stationary sleeve, two stroke can be made with two kinds of scavenging:

1) Cross-flow. Standard this has two opposed exhaust ports and two opposed transfer ports. The transfer ports are angled steeply upward and inject fresh gas into the combustion dome, from where spent gases are pushed downward through the exhaust ports. The flow and port arrangement is cross-wise, hence the name. Drawback was much contact between fresh gas and spent gas, so lots of fresh gas was expelled without getting a chance to deliver power.

2) Loop scavenging, is where the gasses are exchanged by a loop flow pattern, either by piston crown, or by directional porting (Schnuerle) or a combination of both (PDP) Because of the heavy baffled piston, and its weight and thermal drawbacks, DKW (Germany) developed the Schnuerle porting in the thirties. The patent describes at least two scavenging ports side by side with the one exhaust port (as opposed to two in cross scavenging), which direct the fresh gas nearly flat over the piston towards the cylinder wall juxtaposed to the exhaust. The rear wall then serves to change the direction of the flow up and around the combustion chamber, then down to the exhaust port. The piston crown is clean without any protrusions, which means a lighter piston with better thermal control. The combustion chamber can have any form, and many experiments show trenched, or toroidal shapes, with currently the squish-band shape being most popular.

To aid in turning up the fresh gas flow, in later years boost ports were added, which improved low-end power and power range. Modern engines like car engines and the new ST2300 have four scavenging ports and two boost ports to control the flow and micro-turbulence of the separating gas layer even better.

Just thought you'd like to know. (Ed.)

Runway Length Defined:

The Federal Aviation Agency's rules for takeoffs and landings of all jet-powered aircraft include this sentence: "The take-off distance shall not be greater than the length of the runway."

Obviously, there's a lawyer loose in the agency!

Our Members write:

This tale is from Barry Ward:

A SIDE EXCURSION WHILE ON HOLIDAY

On returning from Disney World to Tampa Airport in Florida recently, we were travelling down 1-4 Highway when my wife noticed a sign which read "Fantasy of Flight" and as we had plenty of time we decided to see what it was like. It was only a mile off the road heading toward Polk City. On approaching the facility you first notice this very nice modern building incorporating hangers. We parked the car and went inside. The foyer entrance was very spacious and light and, on approaching the desk, we were informed that the price was $30.00 each (American) which I thought was a little steep. Anyway we paid and proceeded into a very dark tunnel that led into what was the body of a transport plane and it was if you were making a parachute jump! You came to an open doorway with wind blowing through it toward you. There was a small step down, then you were walking through a dark corridor and came out in a first world war bunker. The simulation was excellent, there were German soldiers in trenches, a Sopwith Pup hanging from the ceiling and various other sundry items scattered about. As we were standing looking about films appeared on the wall above our heads depicting the evolution of the Aeroplane and its impact on the war.

Ahead of us was a double door labelled World War 2, so, again groping through a dark tunnel, you come out into a dispersal area with a B17 in front of you. With a ladder leading into the rear entrance of the Bomber, you climb aboard and walking up the fuselage come to a cat walk crossing the bomb bay. As you proceed to cross you look down past the rows of bombs and notice that the bomb doors are open and that you appear to be flying over open countryside. It is very realistic. Proceeding past the bomb bay you come to the cockpit where there are two Pilots. Just behind them is a hatchway and a ladder leading down and out of the nose of the plane. On reaching the ground you start to notice other items placed around i.e.: a trolley acc, fire fighting equipment, step ladders (maintenance of the port outer engine), a willies jeep, plus sandbags, gun emplacements and various tools.

On exiting through double doors in a tent against the wall you come into the first hanger and are greeted with a wondrous display of aircraft and aircraft memorabilia; there are all types of aero engines, front nose sections of various aircraft with films showing the histories of men and their machines. There is a Sopwith Camel without the fabric on showing the framework, there is a Beech Staggerwmg, a Ford Trimotor, a Spitfire, a replica Gee Bee Racer, a replica Spirit of St. Louis, a funny little helicopter with jet motors on the ends of the rotors, two or three old cars e.g. Model A Ford, Cadillac 1938? (Not quite sure of that date), and a "flying car" – the only one of its kind – designed in the early 50s - it's quite futuristic looking. Apparently it only got about 6 feet off the ground when it became highly unstable. The inventor/pilot managed to get it down on the ground without too much damage then walked away and never touched it again - where it eventually came to the attention of Mr. Kermit Weeks the owner of this establishment. There are other planes in this hanger but I cannot remember them all.

Walking outside we were confronted by a gorgeous Sunderland Flying Boat (flown to Florida from Ireland) mounted on wheels with stairs leading up to the main doorway. On entering you come into the main flight deck with its twin rows of seats down each side of the fuselage; as you get to the back of the plane you come to a set of stairs going up towards the back of the plane then doubling back on themselves and going up towards the front of the plane this then becomes 1st Class (very nice) – the seats were plushier and there was also a lounge seat and bar. The sad part about all this is that the plane is in a dilapidated condition, but I was told that it is going to be renovated back to its original condition. There was also on the tarmac a Liberator Bomber, a Martin B26 Marauder and a twin Beech with a perspex nose and gun.

Coming up to the second hangar which you could not go into but could see into as the doors were wide open, there was a modern twin turbo prop jobby, a Fiesler Storch, a Bird Dog L19, and there was also a replica Wright Bi-Plane (bare bones) plus some others of which I can't remember. On talking to one of the aircraft mechanics I was informed that nearly all of the planes, even the Sunderland, are flyable, and he also informed me that with Mr. Kermit Weeks having various other planes dotted around the country, they never know what is going to turn tip from day to day. Apparently he is also going to have another Hangar built over by the water to house all his water planes (isn't it nice to be that rich?).

While I was going through the first hangar there was a double door marked Flight Deck. On entering this room you find yourself in a mock-up of a Carrier flight deck and spaced around the room are eight simulators looking like the cockpit of an F4U Corsair. There are two or three guys running the place and they ask you if you would like to have a go! Of course the answer was yes, so they take you into a briefing room and tell you what's what, after that they take you and fit you into the cockpit, strap you in slide the canopy shut and you are on your own. In front of you there is this big TV type screen. Needless to say I was useless at flying this thing! !!! I found the stick very sluggish and when I came to do a turn, I would push left rudder pedal and bring the stick over to the left and back a little, the screen showed the plane turning right! Now I know what you're thinking: Hah! Doesn't know what he's doing. Well, for your information, I've flown my brother's Taylor Craft (full size) and I know how to make a turn. Anyway I told the guy that I thought the controls were reversed, but he said there was nothing wrong with them.

Anyway chaps that was my first experience with that kind of simulator, and I didn't do too well. This visit was basically at the end of my holiday, but I can heartily recommend this Airport Facility, it is worth the money. I'm sorry to say it makes our War Plane Heritage come out looking very sparse. On leaving the airfield and getting back on to the 1-4 as you are driving toward Tampa on the right hand side of the highway on top of an embankment was a DC3 Dakota standing on its nose with "FANTASY OF FLIGHT" lettered on the underside of the wing, just to let know where it is.

That description of the "Sunderland" sounds more like one of Imperial Airways' "Empire" flying boats. I wonder? (Ed.)

Burlington Radio Control Modelers
Executive
2000

Officers:

Bill Swindells	905-387-7706	cdnflyer@mountaincable.net	President
Dick Fahey	905-637-5469		Vice President
Bill Montgomery	905-681-0509	william.montgomery@cciw.ca	Secretary
Ivan Wismayer	905-331-2280	lakeshor@ican.net	Treasurer

Directors:

Bud Childerhose	905-634-6559	budc@cgo.wave.ca	Wings program
Lawrence Cragg	416-622-3705	cragg@inforamp.net	Skywords Editor
Peter Hagens	905-319-2339		Bayview co-manager
Don Mallory	905-527-1540	malloryd@technologist.com	Bayview co-manager
Howard McNamara	905-637-3798		Meetings and entertainment (with Dick Fahey)
Glen Richardson	905-522-3005	glennr@worldchat.com	Events coordinator
Bernie Sudol	905-634-3245	bsudol@sprint.ca	Memberships (with Ivan and Bill)
Art Titmarsh	905-319-2345	rcav8r@lara.on.ca	Bronte field manager

Special assignments:

Lawrence Cragg	416-622-3705	cragg@inforamp.net	BRCM Auditor
Peter Masefield	905-639-7835	maisy@worldchat.com	BRCM Auditor
Dave Parry	905-855-5430	coins@home.com	MAAC representative
Bernie Sudol	905-634-3245	bsudol@sprint.ca	MAAC representative
Dave Parry	905-855-5430	coins@home.com	Web Master (brcm.org)

brcm.org