



Skywriter



Monthly Newsletter of the Calgary Ultralight Flying Club

October 1990

View From Above

by Paul Hemingson



The September 5, 1990 CUFC meeting was well attended. About a dozen new potential members came out....mainly students and graduates from Blue Yonder Aviation. It is great to see these new pilots coming out and signing up. I encourage existing members to welcome these new faces and make yourselves available to give them information and pass on your knowledge and experience. I like the idea of new blood and new ideas coming into the Club.

First, some housekeeping items:

If your address or phone number has changed in the last year, drop a line to our editor, so that our phone and mail list is up to date.

Insurance is now mandatory...no ifs/buts.

The Two Stroke Aero Engine Survey is still underway...get your forms away to H. Fritze at 11443 SE 86th St. in Renton WA 98056; he needs the data, and the analysis will be of importance to all of us.

I also want volunteers to line-up or give presentations at future meetings....give me your names and ideas, and I will give you the floor.

The Club made \$100 donation to the Aerospace Museum.

The Booby Prize was awarded 'inabsentia' to Russ Sirucek, who damaged his new J-3 Kitten, when he drifted off the runway and found it difficult to maintain his climb-rate thru trees. I understand there are also a few runner-ups too....be careful out

there.

Our Quebec member, Paul Pontois sent me a letter and some photos of the UL scene in his area of Canada. He and his Skypup are having lots of fun.

The main part of the September meeting was a slideshow of the highlights of various Airshows....there are a lot of nice new machines coming into the market again....a lot of them overweight under the current UL regulations. The USA body that governs ultralights is currently reviewing their regulations to acknowledge this phenomena, as is Transport Canada. September 3/90 was the official closing date for sending comments on the newly proposed Canadian UL Regs.

I reviewed these new Regs and included a copy of the draft proposal in the August 90 Newsletter. Basically, I am in favour of the new regulations and hope they come into effect within the next year. The role of the Club, as I see it, is to continue our emphasis on self discipline, professionalism, and safety consciousness. In this way, we will prove, by example, that we are a responsible group that ties up minimum resources of Transport Canada. This role gets tougher as the UL community grows, and we all need to do our share, to ensure good rapport and relations with Transport Canada so that we will continue to enjoy our freedom of the skies. As I see it, the main reason for flying ultralights is the FUN of it. If we behave irresponsibly we will become targets for legislation.

I have been taking photos of various

aviation things and offer some tips to those of you who want to get better photos. The most important factor is get an uncluttered background, whether you're taking air to air or static aircraft. Trees, legs, posts, poles and wires in the background, are a common error. They will look like they are growing out of the wings and fuselage and clutter up the photo. An evenly textured and/or contrasting colored background will give you the best image. Another idea is to use the low angle early morning, or late evening light to accentuate the aircrafts lines and form by shadow and accent. Another tip is to move close enough so that the aircraft nearly fills the whole area of your view finder. Lastly, try an unusual angle; straight-on and broadside views are standard fare. Try getting down low and doing a quartering shot or getting up on top of something high and looking down.

Skywriter

Contributions to your newsletter are desperately needed. The regular monthly columnists are running out of ink.

Those of you who are building, please write a short note about the experience. One page is enough. Those who just started flying, tell us about the experience.

The Editor.

Fly Paper

by Gord Keegan



Let's Be S.T.A.R.S.

There's an organization in Calgary that needs our help. A flying organization that provides an essential service that has been of vital importance to many people, including some members of our own club.

I am referring, of course, to the S.T.A.R.S. air ambulance. The existence of this service is constantly being threatened by financial difficulty that arises from the fact that funds for the service are only partially provided by the government of Alberta. The government pays the operating costs of the helicopter and crew only when they are responding to an actual emergency. For this type of operation to be effective, the crew and machine must be on call 24 hours a day, 365 days a year. The money to pay the crew when they are not actually responding to an emergency has to come from

private sponsorship.

I would like to see our club give thought to some kind of financial donation to S.T.A.R.S. and see if there are any other ways that we, as a group, can be of help to them.

If you would like to help coordinate the effort to help S.T.A.R.S., please give me a call or speak up at one of our meetings.

Volunteer Needed

Christmas Party Time is just around the corner. Let's get an early start on it this year so we will have a good turnout. A coordinator is needed.

Anyone who would like to organized the Christmas party is asked to come forward by contacting Paul Hemingson or Gord Keegan.



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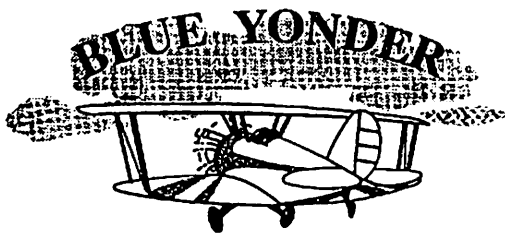
Columnists

Paul Hemingson
Gord Keegan
Jim Creasser

Skywriter is the official publication of the Calgary Ultralight Flying Club and is published 12 times per year. Opinions expressed by our writers are not necessarily those of the club. Articles and letters to the editor are very welcome from any readers. Address correspondence to:

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T2M 4L5

Meetings of the Calgary Ultralight Flying Club are held the first Wednesday of every month at the R.C.A.F. Association, 110 - 7220 Fisher Street S.E., Calgary at 7:30 PM.



AVIATION

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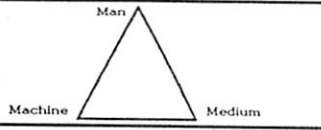
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Safety Corner

by Paul Hemingson



Bleeding the system for all its worth

Brakes are sort of a luxury item on most ultralights. You don't really need them that often. Especially if you are confined to grass strips, and plan your taxiing so that your speed and approach is at something less than terminal velocity. But, the first time you find yourself on asphalt, you will wish you had made provision for some method of stopping. Even an idling motor creates enough thrust to keep you inching along on hard surfaces. On my old Chinook, I could reach out and grab the tire to create a form of human drag. This was effective enough, but not a particularly safe procedure, even with gloves. With my Hiperlite, grabbing a tire is not an option.

This article is about how I figured out an effective way to bleed my Hagar brakes. Many ultralights have this style of brake system installed. Somedays, its taken me hours trying to do it the way the 'Hargar Boys' describe it in their literature. I decided there must be a better way. Here's a way of getting them bled that worked for me, and you're free to try it. It saved me a lot of time and aggravation in trying to get these brakes working. Basically, it is a variant on the squeeze bottle technique, but less messy and more effective.

First, a list of the tools, and equipment you will need:

1. Two pieces of clear vinyl tubing each 2 feet long. Gas line tubing is perfect for the job. Also you need a couple of small hose clamps.
2. An old fashioned oil can, the pumping kind with a spout.
3. The 1/4" wrenches for opening and closing the bleed screws.

The Procedure:

Open both bleed screws and attach the vinyl tubing to each, and route it so that it is vertical, or nearly so. This is so that fluid does not run out all over the place. The fluid is simply confined to the tubing.

Now, fill your oilcan with the brake fluid you're using. Then partially fill the tubing that is attached to the wheel cylinder. About 10 to 12 inches

of fluid, (ie. the bottom half of the tubing) should be enough to create a reservoir of fluid. Now, insert the oilcan firmly into the tubing so that it seals against the tubing and pump more fluid into and thru the wheel cylinder, and watch it progress to and thru the master cylinder. The fluid and air passing through the master cylinder will gradually climb upwards into the vinyl tubing attached to the master cylinder. You will notice Air bubbling up and thru the fluid in the tubing attached to the master cylinder. Once no more air appears to be coming out of the system, close off the bleed screw to the wheel cylinder by rotating the vinyl tubing.

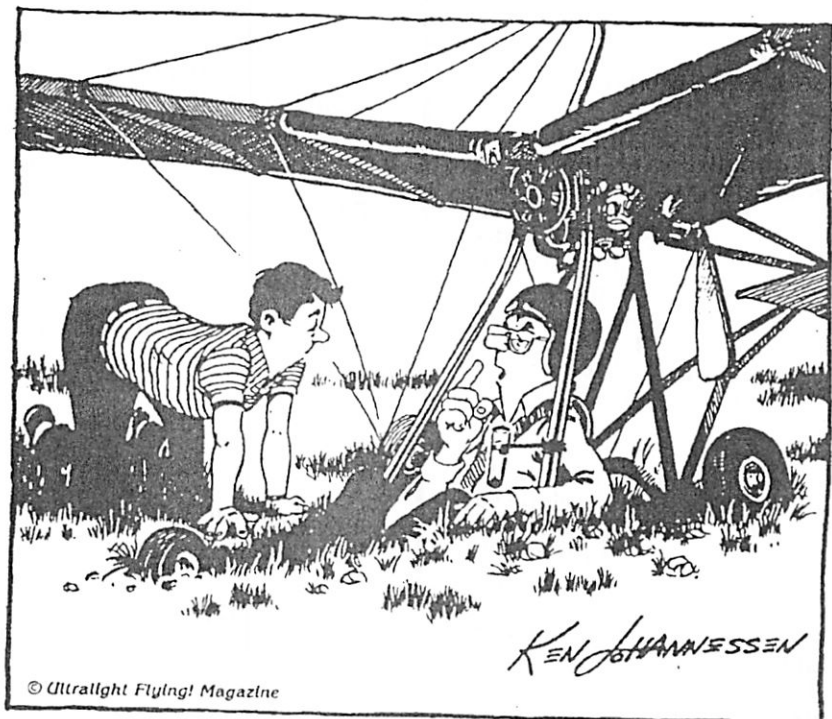
Slowly depress the brake pedal and observe if any more air comes out of the system. Usually you get a few bubbles or micro-bubbles when you depress the brake pedal. The beauty of the vinyl tubing is that it supports a column of brake fluid and the air bubbles can rise up thru it by buoyancy, and no fluid mess results. When no more air comes out and bubbles up thru the vinyl tubing attached to the master cylinder you are almost done.

Now, shove the oilcan spout into the tubing attached to the master cylinder

and pump a little bit in to slightly pressurize the system. Don't overdo this! Just a little bit of pressure. Too much pressure may cause the brakes to be activated, just as though you had depressed the brake pedal. With a bit of pressure, close the bleed screw to the master cylinder. This is most easily done by rotating the vinyl tubing, while keeping it upright. With the hose clamp attached it's easy enough to torque the bleed screw adequately to prevent air going in, or fluid coming out.

The next step is to test the system. With both bleed screws now closed, depress the brake pedal to check for resistance and play. If the pedal is spongy, or you have too much free pedal movement you still have air in the system somewhere, and may find it necessary to repeat the steps. When you're satisfied that the brakes are OK you can remove the tubing. Simply plug the open end of the tubing with a golf tee, or hold your thumb over the end to keep the remaining fluid from running out.

It's a good idea also to do a final check, to ensure that the brakes are not pressured up and dragging. Simply elevate the wheel and give it a spin to see that it rotates freely. Don't forget to tighten the bleed screws with a wrench after you have removed the vinyl tubing. That's all there is to it. Happy Braking.



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NEW BIFOCALS!

Jim's Place

by Jim Creasser



Oshkosh '90 Continued

Last month I wrote about Oshkosh '90, and here is more on that subject. We were on our way to the north end, just past the Starship. Zenair had their usual display with one CH701. I talked to Chris Hienz and asked him which engine he preferred, the 582 or the 912. His reply was they are about the same, the 912 is heavier and with a little more power but the 582 is lighter so it makes up for the H.P. difference. He didn't seem to favour one over the other.

Next were the Avid & Kitfox with little new. Murphy's Rebel was quite impressive looking, but it didn't fly. I talked to John Burch of Macair for quite some time about his aircraft and the U.L. scene in general. You may have seen the ad's for the Protech PIII. This kit impressed me more than any other light plane. The workmanship was beautiful and everything was first class, the only downfall was the weight, very heavy and because of this they don't offer a Rotax at all but start at the low end with a Continental C-65 up to a Lycoming 160HP.

Another very impressive kit is the Sparrow II from Carlson Aircraft. A welded 4130 fuselage, built up aluminum wing with formed ribs, extruded I beam spar, flaps, brakes, stainless firewall, shoulder harness, etc, and a price of \$10,400 U.S., and work quality like Sorrells.

Canadian Airmotive, a subsidiary of Full Lotus Mfg., the flexible float guys from B.C., were there with their converted Suzuki 3 cylinder auto engine with a silent chain re-drive, turbo charged and putting out 97 horses and not much bigger than a 582 and weighing 144 lbs., less muffler. This engine looks very promising for the new class of U.L.'s and A.R.V's.

I ran across two young enthusiasts from Minnesota who have developed a wheel-type snow ski for light aircraft, U.L.'s in particular. They presently have three molds, up to 600 x 6 and said if enough people asked they would do a 800 x 6 as well. This ski system is a moulded fiberglass ski with a nylon webbing harness to go over the tire. It has replaceable teflon wear strips and looks real good. If anyone wants

further info contact me (the price is about \$500. Cdn).

The U.L. and light plane awards were: Grand Champion U.L. - Kolb Firestar, Reserve Grand Champion U.L. - Kolb Ultrastar, Grand Champion Light Plane - Kolb Ultrastar, Reserve Grand Champion Light Plane - Quaser Trike.

Every day at Oshkosh there are forums lasting for about one hour each. 5 forums in each of 10 tents which hold about 150 people. Topic's are anything to do with flying, building etc. Example - How to read charts, Aerobatics, Loran C, Basic Welding, How to write for Aviation magazines, Thunderstorms, Cessna 120/140, The Flying Automobile, Kitfox Forum, Auto Engine Conversions, Rotax Engines, etc., and hundreds more. We sat in on Jim Bese's forum on the BD 10 Jet homebuilt and found it very interesting, imagine a homebuilt pressurized jet capable of faster than Mach 1, and the first aircraft. 5 for the Holiday Inn aerobatic team are nearing

completion.

The Warbird's were very prominent as EAA saluted the Battle of Britain and just about every craft that flew during WWII was at Oskosh and a couple of Migs (Chinese versions).

There was a row in the U.L. area with a sign "Antique Ultralights in this row". There was a Tomcat, Zipper, Weedhopper, Pterodactyl, Easyriser and a Kolb Flyer. A Lazair was also present plus several rows of more modern U.L.'s.

All in all Oshkosh '90, despite the travel problems and weather, was bigger and better than ever and I will be looking forward to my next pilgrimage to Wisconsin.

Hobby Show

CUFC will participate in the Hobby Show at Stampede Park in November. Contact Jim Creasser for details or to help out.

Airlight Aviation

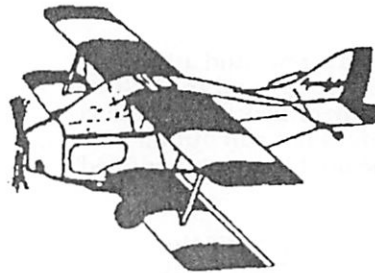
Canadian Distributor for the 1990 Sorrel Hiperlight

R.P.M. Propellers - New ground adjustable, composite, 2 and 3 blade props to fit Rotax engines. Hubs also available to fit VW, Continental and Lycoming engines.

Tygon Fuel Hose - stays flexible for years. \$1.50 / foot

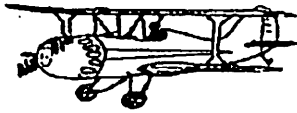
Optimol Smokeless 2-stroke oil

Contact
Jim Creasser
226-0180



One Pilot's Opinion

by Bob Kirkby



Bungee Aging

Have you ever wondered what the coloured strips on bungee cord are for? I thought it had something to do with size, but I recently discovered differently.

This colour coding is composed of coloured threads interwoven in the cotton sheath which binds the strands of rubber cord together. The coding is defined by mil-spec MIL-C-5651A to indicate the approximate date of manufacturer. Since bungees deteriorate with time, this lets us determine the age of the bungee, which can be used as a guide to periodic replacement.

Here's how it works. There are two spiral threads used for the year and one for the quarter of manufacture. There are five colours assigned to years and, obviously, four for quarters. Thus the year colour code repeats every five years. This is a pretty strong suggestion that your bungees should be replaced before five years elapses!

Year	Colour	Quarter	Colour
1980	Black	1st	Red
1981	Green	2nd	Blue
1982	Red	3rd	Green
1983	Blue	4th	Yellow
1984	Yellow		
1985	Black		
1986	Green		
1987	Red		
1988	Blue		
1989	Yellow		
1990	Black		
1991	Green		
1992	Red		
1993	Blue		
-- etc --			

Table 1. Shock cord colour codes.

Table 1 shows the colour coding cycle. Figure 1 shows a sample bungee with two blue stripes followed by one yellow stripe. From this we can determine that the bungee cord was manufactured in the 4th quarter of either 1988, 1983 or 1978. You would have to rely on other information to determine which of these years was correct, such as maintenance logs, year the aircraft was built or simply memory. It's pretty obvious that bungee cord manufacturers do not expect their product to last more than

five years.

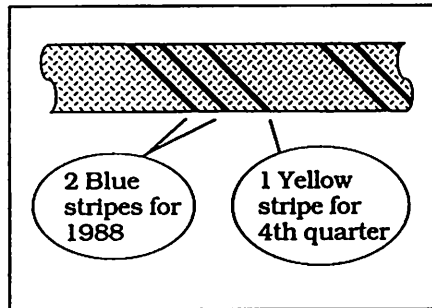


Figure 1. Sample bungee cord coding.

Bungee cord should be replaced when it shows any sign of deterioration, especially if it is over five years old. Deterioration is indicated by "necking" or narrowing of the cord and by breaks or worn spots in the sheath. The necking of the cord is caused by individual strands inside the cord breaking.

Now that you know how old your bungees are, let me comment on another subject. Most of you know by now that I sustained some damage to my Renegade this summer due to an encounter with a small tree at Indus. This incident occurred because of not paying attention to the ground after lift-off.

After thinking about it a lot I realized that I rarely give a second thought to the ground once the wheels are off the ground. There have been many times when the aircraft has been off centre line or angled to one side or the other during takeoff roll, and if the wheels are about to leave the ground I do not both to make a correction. This, as I have discovered, can be very dangerous.

With a crosswind and a very hot day to give you poor lift, you can very easily find yourself drifting over an obstacle at the side of the runway which you may not be high enough to clear. Pruning the hedge with your landing gear is no way to get your jollies.

The moral of this story is to consciously keep your aircraft over the centre-line, after lift-off, and keep thinking about where that runway is until you are well above all surrounding obstacles. The obstacles at the end of the runway aren't the only ones to be concerned with!

Classified

ABC Ballistic Chute - never used, hermetically sealed, excellent; Ivo Prop - updated 3-blade, ground adjustable, 60", composite blades, L.H. tractor or R.H. pusher, new. Offers. Paul Hemingson 931-2363.

Beaver RX-550 - 2 place, Rotax 503, pitot airspeed, ALT, TACH, EGT, CHT, Hobbs, brakes, wheel pants, custom paint, ballistic chute, wing covers, less than 200 hrs., always hanged, never damaged. First \$10,000. offer flies it away. Call Gord Keegan, 238-0177.

Chinook 2-place - 1987, 503 single carb, Elec. start, dual inst., new (2 hrs TT), sacrifice - offers. Wayne Winters 936-5767.

Ritz Standard A - single place, ready for covering, with everything but chemicals, Zenoah motor, \$5500., 335-4594.

Braid for shielding spark plug leads and ignition wires, \$2. per foot. Bob Kirkby 226-0720.

Goldwing 1986 - 60 hrs TT, instruments, brakes, BRS chute, flies great, Cuyunna 430. Romeo 204-878-2744.

Hiperlight SNS-8 - single place, S/N 1, factory built, TTAF 45 hrs, new Rotax 377, new R.P.M. adjustable prop with spinner, new candy apple paint, instruments, brakes. Jim Creasser 226-0180.

Quicksilver - 1984, single-place, 440 Cyuna engine, inst., long range seat tank, never flown, \$8500 invested, sell for \$4000. Wayne Winters 936-5767.

Quicksilvers - MX-II, Rotax 503, 100 hrs, inst. pod, parachute, needs fabric, \$4000.; also MX, Rotax 377, 75 hrs, needs fabric, \$2500. Garry Miller 343-7082, Red Deer.

Rotax 277 - rebuilt in Vernon, belt drives, 2 sets of pulleys, complete exhaust. Offers. Russ Sirocek 274-8526.

72" Prop - maple with right-hand 40 pitch. Never used and undrilled. \$150. Bill Clark 931-3143.

Rotax 503 - Dual carbs, electric starter, TT 130, excellent condition. \$1650. Gary Knier 281-3577.

CUFC Membership List

As at September 30, 1990

Name	Telephone	Aircraft
BAINES, ROGER	281-0956	
BEFUS, BEV	235-1843	
BENDELL, DAVE	295-6378	
BRADBURY, JIM	247-6200	
BURKHOLDER, DALE	235-0749	FISHER FP101 C-IAPP
BURNS, GORDON	240-9290	
CHURCHILL, WARREN	252-4524	
CLARK, WILLIAM	931-3143	SPAD 13 C-IWFC
CLEMENTS, DAVID	938-4623	5151 MUSTANG
CREASSER, JIM	226-0180	(NO-NAME) C-IBSA
DAVIS, ROY	266-1197	
DIGNEM, BRUCE	(604)467-6760	RENEGADE
DUFF, CHUCK	938-2056	MIRAGE
EASTHAM, KEN	281-2641	BEAVER RX550
EVERETT, LARRY	288-1120	HIPERLITE
HEMINGSON, PAUL	931-2363	HIPERLITE C-IEXP
HOWARD, BOWIE	240-1140	
HUHN, CHRIS	226-0068	LAZAIR C-IBTE
KEEGAN, GORDON	238-0177	BEAVER C-IDYB
KESPE, BERNIE	255-7419	BEAVER C-IBOL
KIRKBY, BOB	226-0720	RENEGADE C-IBVW
KIRKMAN, CHRIS	280-1843	MINI MAX
LEE, ED	288-7219	
LEONARD, GORD	948-5673	
MACDONALD, GERRY	275-6880	
MAIER, FRED	274-8964	
MAWDSLEY, BUZZ	271-6197	GYROCOPTER
MCARTHUR, TODD	229-1367	BEAVER RX-550 C-IEAN
MIDWINTER, STEWART	230-7769	
MORRISON, GORDON	949-3103	
MUKHERJEE, JASON	256-3687	
MYSLAWCHUK, IVAN	272-6733	LAZAIR C-IVAN, ULTRASTAR C-ICRY
NANTAIS, JIM	247-6201	LAZAIR (X2) C-ICSV, C-ICTF
PIKE, ALAN	(416)722-9466	BEAVER C-IEWG
PONTOIS, PAUL	(819)228-3159	SKYPUP C-IHNR
QUAIFE, NEVIN	948-7010	
RESVICK, BARRY	283-3581	
RICHTER, DON	266-4823	
RICKARDS, GEOFFREY	285-2728	
ROGERS, DON	242-6549	LAZAIR (X2) C-IATU, C-IANG
SIMPSON, STU	265-3330	
SIRUCEK, RUSSELL	274-8526	HIPERLITE C-ICUC
SONDERGAARD, R.E.	289-9662	CRUSADER C-IFOG
SORENSEN, GORDON	293-7990	
TEBBUTT, GORD	288-0545	BEAVER C-IDRS
THEN, BERNIE	280-3955	CHINOOK 2-PLACE
THEN, RON	285-8484	CHINOOK 2-PLACE
WERNER, MIKE	242-0823	
WHITTINGTON, KEN	295-0255	
WINGATE, CLIFF	246-6154	BEAVER RX550
WINSLOW, DARRELL	248-9243	
WINTERS, RALPH	238-0406	
WINTERS, WAYNE	936-5347	MANY ULTRALIGHTS
WOLOSHYN, WAYNE	292-5227	
YAHOLNITSKY, ROBERT	285-6345	PETTITE BREEZY