

Skywriter



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Message from the Prez

by Gordon Keegan

Thanks to Vice-president Paul Hemmingson for taking the October meeting on my behalf. Also, thanks to Bob Kirkby for his excellent presentation on radio installations. I am really sorry that I did not get to hear Bob and maybe he will be kind enough to repeat his talk sometime in the future.

This month you will find attached a nomination form for the positions to be elected at the December meeting. As dictated in our club by-laws, the positions which are now open for nomination include President, Treasurer and Director. I cannot emphasize enough how important it is that you give serious thought to which of your fellow club members can best fill these positions and submit your nomination form by mail or at the December meeting. Nominations will also be taken from the floor at the December meeting. Voting will take place by show of hands at the December meeting and the new executive will take over at the January monthly meeting.

Enough of this business stuff! It's also time to start thinking about the annual C.U.F.C. Christmas bash! I would like to hear some suggestions for how you would like to see the party done this year so that we can begin organizing. Please bring your ideas to the next meeting or give me a call.

Good flying!

Check That Weather!

Aviation Briefer: 275-8156
Recorded Weather: 247-2570

The New Regulations

by Jim Creaser

What do the new regulations mean to the prospective ultralight buyer?

The answer to this question, in short, is a much larger choice. I will attempt to list the aircraft that will qualify under the new regulations. Keep in mind that any kits destined for the US ultralight market have a maximum listed speed of 60-64 mph, to comply with their regulations. Here is a list, with my comments and impressions.

Aces High Light Aircraft offers Cuby I and Cuby II. This was originally copied from one of the US plans, N-3 or similar, with some changes by an entrepreneur in Calgary and eventually sold to the present company in Ontario. Cuby's are rigid wing, built up of wood and aluminum and 4130 fuselage.

The Advanced Aviation line of Cobra, Carrera and Buccaneer aircraft have been on the market for several years and have a good reputation. All are flex wing craft. The Buccaneer line is amphibious.

(Let's get straight, before I go any further, the difference between rigid wing and flex wing. Boeing, Cessna and all homebuilt and experimental aircraft have a proper built-up wing, using a main spar, rear spar, formed ribs (airfoil shape), drag spar, strut(s) or wires and formed leading edge. This is the very best way to build a wing for strength, lift and the least amount of drag. It is also a lifetime structure. In contrast, the flex wing is usually comprised of a leading edge aluminum tube, trailing edge tube, drag tubes or wires, dacron sailcloth with sewn-in pockets for rib tubes to achieve an

airfoil shape. This type of bolt-together construction, while usually cheaper to produce, is not as strong, has very high drag and has only short term life. For this factor alone, I eliminate flex wing craft from my personal list of desirable ultralight aircraft.)

Aero Visions - Mike Fisher's new company (he sold Fisher Aviation Products), has a new model. The Celebrity is 2-place with maximum speed of 110 mph and a stall speed of 37 mph.

Aircraft Specialties - Delta Hawk and Delta Bird. Plan only available.

Avid Aircraft with the Avid Flyer; an excellent aircraft. It just makes the new regs with a gross weight of between 911 and 1050 lbs. and a maximum speed of 90 to 115 mph, depending on the model. There are 5 models in all, not counting the 3-place amphibian, which does not qualify.

Beaver RX Enterprises - a flex wing with 1 and 2-place models.

Butterfly Aero - Banty, a single place.

CGS Aviation - CGS Hawk, single and 2-place flex wing with enclosed cockpit.

Canadian Ultralight Mfg. - Chinook 2-place, flex wing.

Carlson Aircraft - Sparrow and Sparrow II. The Sparrow II lists maximum speed of 125 mph, but I am including this model and several others as there is very little chance they would be required to limit maximum speed to the 115 limit.

Circa Reproductions in Edmonton has the Nieuport line of kits and plans.

Denny Aircraft with the Kitfox we all are familiar with (2 in Calgary).

Early Bird has 2/3 scale Jenny plans.

Earthstar Aircraft with the Thunder Gull I and II.

Evans Aircraft with plans for the Volksplane I and II. This is an excellent homebuilt design.

Falconer Aviation in Edmonton has plans for the Jodel F9, Cubmajor, Midget and HM293.

Fisher Flying Products has a line of wooden geodetic aircraft: FP100, FP202, FP303, FP404, FP505, FP606 Classic and Super Koala.

Flightworks - Capella 1 and 2-place, rigid wing, parasol airplanes.

Golden Circle Air now has the Tierra line of flex wing.

Hipps Superbird line of rigid wing, 6 models, single and 2-place.

Morrey Hummel - Hummelbird single place, plans or kit.

Huskey Mfg. in Saskatoon has the Norseman I and II. A well built conventional looking aircraft.

Kestrel Sport Aviation - Hawk 2-place from the east.

Kolb Co. makes what I think is the best buy in the marketplace. The Firestar and the Twinstar are the very best flying aircraft I have flown and built. Well over 1200 kits sold since 1973. Yes, before the so-called first ultralight was flown by John Moody in 1978, Holmer Kolb was flying his Kolb Flyer (not unlike the Ultrastar which I built in 1983 and flew for five years).

Lightair Aviation in Winnipeg has a Beech Staggerwing look-a-like, but in the scaling process it lost something more than weight, size and price.

Light Miniature Aircraft has four models, 1 and 2-place. They are well built Cub-like aircraft.

Macair Merlin is an excellent and well built aircraft (soon available at Indus from Wayne Winters).

Mosler now has the N3 Pup single and 2-place, a well built Cub-like craft.

Murphy Aviation Renegade series bi-planes with all aluminum construction, fabric covering and open cockpit.

Jim Peris - JN-1 plans, single place.

Phantom Sport - the Phantom I and II, flex wing.

Powers Bashforth - Mini Master push-pull, may not make the regs because of weight and speed.

Quad City has the established line of Challenger aircraft, flex wing.

Rans Co. Randy Shlitters Designs: S-6, S-7, S-9 and S-10. Good flying, quick build, flex wing aircraft.

Sorrel Aircraft - Hiperlight single and 2-place, super built aircraft, bi-planes with enclosed cockpit.

Sunrise Ultralight Clipper and Spitfire, single place flex wing.

T.E.A.M. Aircraft and their popular Max series of single place wooden aircraft, Mini-, Hi- and the next one will be Cli-.

Two Wings Aviation - Mariner single and 2-place.

Ultra Sail - Cloud Dancer single place.

Ultravia Aero - CH701, super high performance, high lift wing with slats and flaps, large cockpit from Chris Hienz.

This completes my list which is not complete. If you would like any more info on these or other available craft give me a call. (226-0180)

Safety Corner

by Paul Hemingson

Forced vs Precautionary Landings

"No voyage is dangerous to the one who waves good-bye from the shore."

I. Asimov

September's topic was forced landings in which a mental checklist of the accepted procedures was given. It's a good idea to commit the procedure to memory (or something) for rapid recall. The problem is that most pilots succumb to a form of temporary Alzheimers disease - when the engine quits, so does our memory!

A short review of the forced landing procedures is in order before discussing precautionary landings.

How's your memory?

Pretend, for a moment, in the comfort and safety of your favourite armchair, that you're flying alone and the engine suddenly quits. What do you do first? Second? For those who might have forgotten here's a summary of the accepted procedures:

Forced Landing Procedure

1. **Maintain speed** - stick ahead to get the nose down; retard the throttle to idle position.
2. **Select a field** - taking into account wind direction and velocity, glide fetch, obstacles, hazards, etc.
3. **Plan the approach** - and set up the approach.
4. **Cause check** - check switches and valves.
5. **Restart attempt** - if you have time.
6. **Concentrate** - on approach and flare to landing.

These procedures sound straightforward and obvious - the natural thing to do, but experience shows just the opposite is true.

If these procedures are neglected, then gravity will select your landing site for you. Gravity likes to see flat feet, sagging breasts and aeroplanes on the ground. The plane will get ahead of you and you will find yourself reacting to it rather than having it react to you. The trick is to use gravity. Use it wisely to control airspeed and sink rate.

These procedures are too important to just try and commit to memory. One needs to develop the ability to do them instinctively - by reflex - without resorting to memory recall. The memory bank will likely be empty. The only way

I know how to do this is by repetition. At the risk of being redundant, I repeat, repetition. Drill yourself over and over again by going through the motions. Yes! Act it out - on the sofa, in your kitchen chair, sitting in your rooster rocket; better yet, do it while you're driving along. Just pretend that your motor quit. What would you do? There is a certain similarity of co-ordination and divided attention required. If you run into someone, don't blame me; it shows that you require more practise at splitting your attention. Good pilots don't concentrate on one thing at a time to the exclusion of other things. They divide their attention between a number of tasks. This might explain why some 'executive types' and student pilots fail to learn to fly more quickly. They concentrate too much on one thing at a time as a carry over from their office work habits. Over the years, in a demanding office job, focussed attention on the task at hand is essential. There's a difference between dividing your attention and having a wandering mind. It does not follow that inbeciles with unfocussed thinking make good pilots. The secret is to divide your attention among all the tasks at hand.

Forced landings bring out the best (and worst) in a pilot - a time when the art and science of flight really come together. There is no substitute for really knowing the characteristics of your machine - its glide distance, its sink rate, its slip rate By acting out the forced landing procedures, your actions will become automatic - almost! In a real "flameout", the suddenness of an engine failure has a way of surprising most pilots. It may take a few seconds to do the right things, in the right order. Just don't panic! Following the proven procedures results in the best chance of successfully dead-sticking your machine. Neglecting these procedures will turn the pilot into a passenger who is unlikely to take timely, decisive action. Indecision uses up valuable time and altitude just when you need it most. The true value of the proven procedures is unlikely to be realized until you've actually experienced a forced landing and reflected on your own performance. Good luck!

The Precautionary Landing

"Going there may be most of the fun, but only if you get there in the end."

I. Asimov

The precautionary landing is usually defined as one done under full control of the aircraft, i.e., the engine is operating just fine. Listed below are the things that may create a precautionary landing.

Reasons for the precautionary landing:

1. Weather
2. Low on fuel
3. Minor engine/aircraft problems
4. Lost
5. Darkness
6. Coffee, pee or stretch break

All of the above things will exert pressure (stress) on the pilot - essentially because you will be landing at an unfamiliar field. In my mind, landing at an unfamiliar strip should automatically be considered as a precautionary landing. Most of us operate from unprepared (i.e., unpaved) strips where conditions can change with the weather, the seasons, and with other inhabitants who use it (gophers, badgers).

Learning to land your aircraft on an unfamiliar strip is a useful skill to acquire. It gives you a lot more flexibility in using and enjoying your machine. It also gives you confidence in knowing you can land your aircraft just about anywhere, whatever the reason. One man's familiar strip is another man's unfamiliar strip. All it takes is some planning to land out at an unfamiliar strip.

Landscape or Landscape?

But, just because someone else lands there regularly does not imply that you can go unprepared. Consider a precautionary approach to any strip with which you're unfamiliar. It might be a friend's strip, an outlanding at a "new-to-you" strip, a prepared runway, a pasture or hayfield. Whatever the reason, a little advance planning is in order. Get whatever information you can about strips in your area that you might want to land at. Visit them and get a "feel" for the lay of the land, hazards on approach and any unique obstacles. Look them up in the Canada Flight Supplement, which you can purchase new for \$10-\$15 or get an old copy from one of your pilot friends. Invest \$8 in the Alberta Aviation Council map and handbook to familiarize yourself with the local strips. This way, landscape does not become landscrape!

Even with all the info at hand, it's considered good practice to overfly the strip to get an overview. A low pass, or overshoot will get you info on such things as:

Precautionary landing checklist:

1. Wind velocity and direction;
2. Orientation of runway(s) vs the wind and condition of the surface;
3. Relief or topography of the runway (slope, swells and swales)
4. The presence of any obstacles or hazards (powerlines, trees, buildings).

Be especially alert to any buildings or trees on the upwind side of a runway, when a crosswind is present. I've often found these create wind gradients and turbulence of which you need to be aware on short final.

If in doubt, do another or second overshoot approach to get the above things sorted out. Then, land with confidence and control. It might also be a good idea to consider the above check list before any landing. Did you check the windsock on short final during your last "ordinary" landing? I didn't - and the wind had

switched 180 degrees, making for a long roll-out. Another lesson learned; another humbling experience. My aeroplane is a good teacher - sometimes I wish I were a better student.

P.S. I don't think there is any substitute for "walking out" any strip, especially before taking off. It gives you the best feeling for the suitability of a strip; then, your precautionary landings will go without any hitches.

Fly safely.

Forced Landing Bungled!

by Gord Keegan

It started out as a perfect Saturday morning for flying. The plan was to fly to Indus, meet some guys from the club, and continue on to Jim Creaser's place for some of that good country hospitality that Jim always has to offer at Balzac International/Golf and Country Club. The group consisted of 5 ultralights and Buzz in his whirlybird. After a lunch break and some tall tales of piloting prowess, it was time to head home. Since this was the day of our display at the R.C.A.F.A., I was running a little late and decided to return to Black Diamond via the west side of the city and through the "Gauntlet" which runs between the Calgary and Springbank control zones. I realize now that this is not a recommended route for those who value their skins and their birds.

As I passed through the area and headed south to Black Diamond I noted how few forced landing sights there were. I approached Bill Clark's place and looked down to see if Bill was home. Just then my engine dropped to about 250 RPM, this was not good; at 2500 RPM, a two place Beaver holds altitude like a greased crowbar! Since I was over Bill's place anyway, I decided I may as well drop in for a visit, literally. I was carrying a lot of altitude (approximately 1500 ft) and began a shallow descending spiral to get set-up for an approach to what I know is a small, tricky runway to fly into.

As I made a couple of "S" turns and came around onto final, I realized I was a little high and at the same moment also realized that Bill's strip leaves no margin for error. An overrun on this strip means you barnstorm his hangar and come through the back wall stripped of everything but your long johns! At the last moment I came to the sickening conclusion that this was not going to work and looked frantically for an alternative. I looked at the road, too many cars, altimeter 100 ft., airspeed dropping, no more choices, head for his neighbour's stubble field. Luckily the field that was on the other side of the fence was perfectly suitable and the landing was smooth and uneventful. I emphasize the word "lucky", because that was the only thing that prevented damage to my bird this day.

As it turned out, the cause of the engine failure was a threaded cap that stripped off the end of an NGK spark plug, leaving the spark plug wire dangling in space. I had a plug and wrench in my emergency kit and was able to replace the plug and takeoff from the same field. I would like to review some of the AIRORS that contributed to this Air Farce.

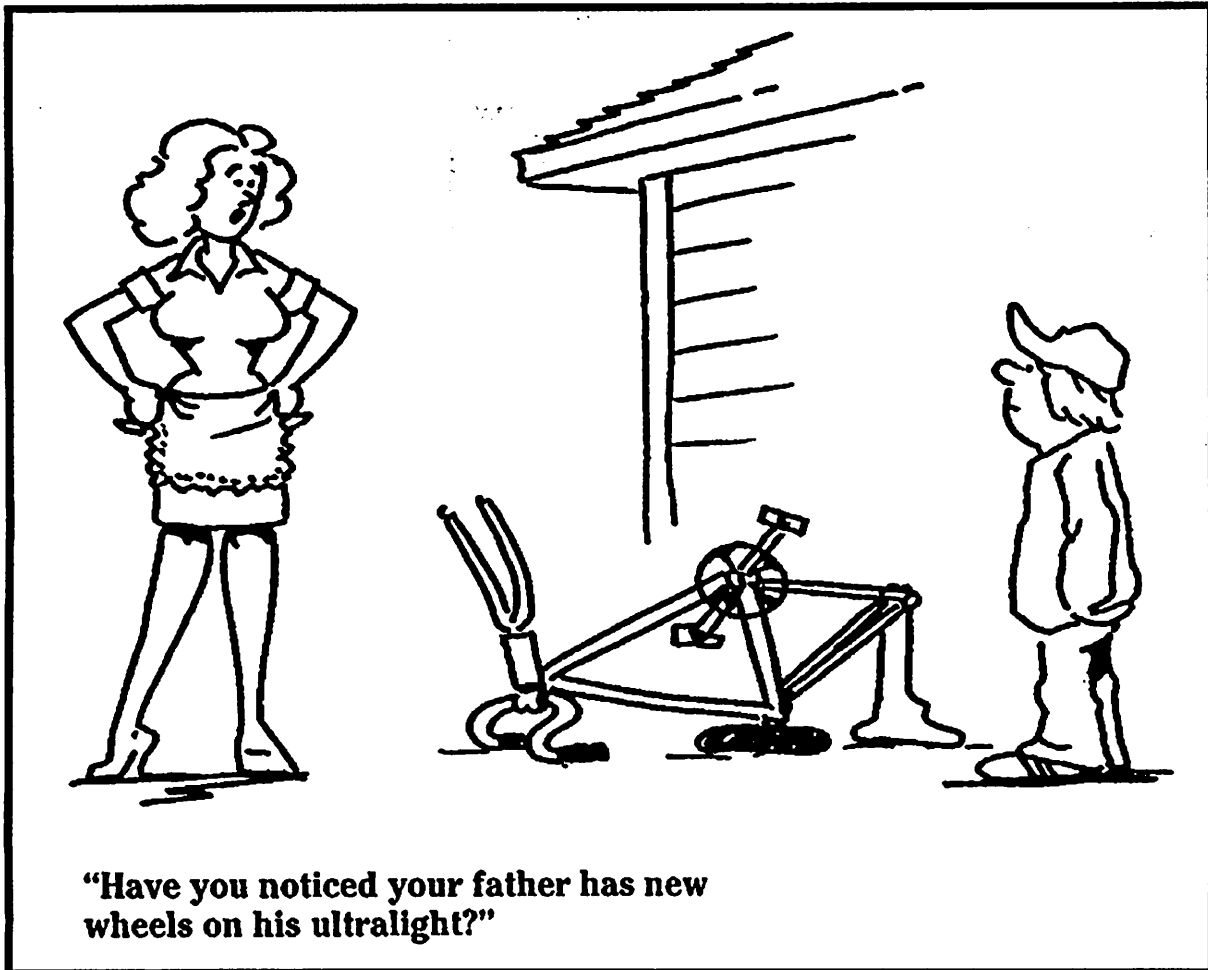
1. Flying over hostile terrain (west of Calgary).
2. Not checking each spark plug very carefully before every flight.
3. Bad case of GETHOMITIS.
4. Selecting an unsuitable landing site.
5. Changing my mind twice on final approach.

I am sure you can think of many more. As it turned out, I was hours late for the RCAFA display and was left with serious doubts about my piloting skills. Remember how this started out as such a perfect flying day? The moral of this story is, practice forced landing techniques on a regular basis with a qualified instructor who can pull the power off when you least expect it. By the way, when was the last time you went up with an instructor just to check your currency on various piloting skills? I know, too long ago, just like me.

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From the Editor

by Bob Kirkby

Coincidentally, the major topic of this month's newsletter seems to be forced landings. Hopefully this is not ominous. I would like to add a few of my own comments to Gord's report of his recent forced landing.

I was talking to Gord shortly after his engine failure and he showed me the spark plug that lost its cap. The root cause of his problem was the fact that he was using NGK plugs with screw on contacts. These are a dual purpose plug since they can also be used in applications where a tongue terminal is used instead of a standard plug cap to make the contact, in which case you remove the top to reveal a threaded stud underneath.

A close look at Gord's contact revealed what appeared to be stripped threads, but I believe what actually occurred was that the screw top became loose from vibration, although it could not become loose enough to fall off because of the grip of the plug cap. Once it became slightly loose I suspect electrical arcing occurred between the top and the plug stud (evidenced by blackened metal between top and stud). This gradually ate away at the threads and the top got looser, which caused the arcing to get worse, until it eventually fell off.

The lesson to be learned here is, never use plugs with screw-on tops. Most plugs are available in both varieties, so ask for solid tops. If you aren't sure what type you are using at the moment, please take a few minutes to check it out and throw away any plugs with the screw-on tops.

On another topic, I need newsletter material. The contributions of Paul, Jim and Gord are superb, now I would like other club members to give me some short, newsy items to supplement the main columns. Please scratch out a short story about your aeroplane, include pictures, or an incident like Gord's and give me a call. If you prefer, write a letter expressing your views or concerns and I will start a "Letters to the Editor" column.

In time, and as one comes to benefit from experience, one learns that things will turn out neither as well as one hoped nor as badly as one feared.

Jerome S. Bruner

Classified

ABC Ballistic Chute - never used, hermetically sealed, excellent, new \$1900., offers. Paul Hemingson 931-2363.

Beaver RX-550 - 2 place, Rotax 503 air-cooled engine, pitot airspeed, altimeter, tach, EGT, CHT, Hobbs, hydraulic brakes, wheel pants, custom paint, ballistic chute, wing covers, less than 200 hrs., always hangared, never damaged. Hangar space available at Black Diamond. First \$10,000. offer flies it away. Call Gord Keegan, H. 242-7791, W. 265-3636.

Fisher FP101 - fantastic flying ultralight yet looks like a conventional aircraft. New, fly it away. \$7000. Ralph or Wayne Winters 936- 5347 or 238-0406.

R/C Scale Modeller - magazines 1970-1989, A1 condition, 260 available, \$1. each. Dave Bendall 278-9175.

Boom Mic - M-87 low impedance dynamic microphone, fits most headsets, new, 2 available, \$25. each. Bob Kirkby 226-0720.

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

Hagar Wheels - 1 pair of 6" Hagar wheels, new, \$40. Bob Kirkby 226-0720.

Chinook Parts - brakes, fuselage landing back, some damage to a wing, make an offer. Sky Master 335-3306 or Gord 293-7990.

Ivo Prop - 3-bladed, ground adjustable pitch, 56" diameter, composite blades, L.H. tractor or R.H. pusher, new, \$400. Jim Creaser 226-0180.

Classified ads for aircraft and related equipment are free to CUFC members. Call Bob Kirkby to place an ad.

Dates to Remember

Next CUFC Meeting is Wednesday, December 6, 1989, 1930 hours, at the RCAFA, 110-7220 Fisher St. S.E.

CUFC Election night is next meeting night, December 6, 1989. Come and vote!

CARES Christmas Dinner will be held December 8 at 1830 hours, Legion Branch #286, Bay 7- 640-28 St. N.E. Tickets at \$6.50 each. This is an excellent way to kick off the Christmas season.

Please call Bob Kirkby with the dates of any coming events for this column.