4/98
Aug/Sept

# free flight · vol libre

# Liaison

**Thank you Roberto Centazzo** In the last issue of *free flight*, I commented on the new piece of SAC promotional material that was used as the colour cover of issue 2/98. In my comment, first I failed to mention the artist's name, Roberto Centazzo, a SAC member flying at York Soaring who donated the artwork to SAC. I also confused the issue by mentioning that the *format* of the poster was pioneered by our friends from MSC who, many years ago published a very successful mini-poster. Roberto has an interesting website; have a look at it at *http://www.starblanket.com/~roberto/blanik.spml*

**Thank you Susan Snell** Susan is a member at Winnipeg Gliding but earns a living working for the Investor's Group. On behalf of SAC and on her own initiative she applied for a program called the Investors Community Service Support Group. As a result, SAC received from Investors a $750 donation. Susan, thanks for your commitment. I should also mention that Susan is part of the virtual team that produced our outstanding web page.

**Don MacClement** Don MacClement, one of the three founders of SAC, passed away on July 4. He was 93. Those of us who attended the 50th anniversary AGM in Aylmer, QC will remember the most enlightening and humorous presentation on his life in aviation that he gave us that night (and the astronaut sitting next to him was very impressed!). More information on him appears in this issue.

**Air Cadet League of Canada** On June 20, I attended their annual meeting and dinner. A Memorandum of Understanding was signed, making official the intent of our two organizations to work closer together. André Dumas, FAI président d'honneur, was in attendance and applauded our decision. SAC will also make available a bursary that will allow a graduate of their glider pilot training program to pursue his or her interest in soaring. This grant will be in the form of a credit usable at any SAC club. The money will be paid by SAC to the club chosen by the Air Cadet. Funds will come from the Glynn trust fund that was set up many years ago with a similar objective.

Three years ago, we set up the SAC Air Cadet program. It consisted in a special $199 club and SAC membership package. Air cadets and former air cadets up to the age of 21 provided they were still students were eligible. 33% of SAC's clubs came on board. That is encouraging and we will push for more clubs to get involved. For over twenty years, the Air Cadet League has trained over 300 young Canadians per year with an outstanding safety record. An air cadet coming to your club comes prequalified as to his or her ability to fly. You have in front of you a disciplined and interested young individual that will use up less resources to complete your club's training syllabus than any ab initio member. It is our duty to support an organization that promotes flying and works for the youth of this country. I would hope that all clubs in Canada will welcome the air cadets. They are part of what Canada will be tomorrow.

Happy thermals!

La ligue des cadets de l'air est très active au Québec. Dans mon club, environ 20% des membres sont d'anciens cadets. Ils constituent un réservoir de membres potentiels ayant des aptitudes certaines pour notre sport. Beaucoup de préjugés circulent quant au programme de vol à voile des cadets. Il faut comprendre au départ leurs objectifs pédagogiques. Leur programme et leur budget permet de former des pilotes au niveau minimum de la licence de pilote de planeur. Les SGS 2-33 constituent essentiel de leur flotte. Ces jeunes hommes et femmes sont étudiants et leurs ressources sont limitées. Leurs énergies et leur enthousiasme ne le sont pas. Un peu d'imagination peut faire le pont entre nos besoins et les leurs.

Le cours d'instructeur aura lieu à la fin de l'été. Marc Lussier a déménagé sa famille au début de l'été. Cette activité ne lui a pas permis de donner la formation d'instructeur comme prévu. Ce n'est que partie remise.

Bons vols.

*Pierre Pepin* president

# free flight vol libre

4/98 Aug/Sept

The journal of the Soaring Association of Canada
Le journal de l'Association Canadienne de Vol à Voile

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**Cover**

Two tail-ends portrayed. At the front of the grid in Brandon, "sniffer" Charles Yeates prepares his PW-5 for launch.
photo: Tony Burton

# The $100 hit and what you get - Part 2

**Jim McCollum**, SAC Executive Director

In the article, *The $100 hit, tax receipts & Pioneer power* (*free flight 6/97*), we examined the cost side of a cost/benefit calculation of SAC memberships. It was shown that, once the tax credit is taken into account, the cost of SAC membership is about half the stated amount. In this article we turn to the benefits side of the equation.

### The benefits of belonging to SAC

In providing services to its members, SAC concentrates on issues and aspects of soaring which individual clubs or members, acting on their own, cannot effectively or efficiently deal with. In carrying out its mandate, it also takes into account the interests of future generations of glider pilots and the soaring movement conceived of as a whole. Thus, while SAC provides many immediate services to its members, working to ensure the future well being of the sport also makes a significant claim on resources.

The Association's work is almost entirely carried out by volunteers, although it maintains a small office in Ottawa to coordinate things, act as a communication centre, maintain records, and deal with various regulatory issues. Because SAC is able to draw on volunteers from across the entire SAC membership, not just one or two clubs, it has access to a large and impressive pool of talent, and SAC volunteers often bring professional and highly specialized expertise to the table. This has served the soaring movement well, particularly when dealing with critical and complex issues that it has had to face from time to time. One can think of the benefits of the Association as being loosely divided into tangibles and intangibles. Listed below are just those that have come immediately to mind; some have probably been missed.

### Tangible benefits

1 *free flight* *free flight* comes with membership. It is the principal and most effective way of keeping informed about the soaring scene in Canada. If one considers that an outside subscription to the magazine would cost $26, and one receives a tax receipt for membership dues, the cost of belonging to SAC already appears very low.

2 *Insurance* SAC's Insurance committee negotiates a group aircraft insurance plan on behalf of its members. This allows clubs and many individuals to insure aircraft at lower rates than they could otherwise. Airfield accident insurance is also provided at very economical rates. Finally, a travel medical insurance program, which includes gliding, is available. Since most plans exclude recreational flying, this program can be useful if you plan to do some soaring outside of Canada.

3 *SAC materials* SAC produces student manuals, logbooks, and other soaring supplies at attractive prices. A variety of books, manuals and other materials are available at lower prices than can be found elsewhere. A member of the Sporting committee has produced an extremely useful and popular guide to badge and record flying, which has been through several editions.

4 *Instructor courses* Each year the Association's Flight Training and Safety committee offers three instructors courses, according to demand. One in western Canada, and two (one English, one French) in the east. The committee authors some of the manuals referred to above and provides advice and guidance to clubs on safety matters.

5 *FAI link* SAC has a link to the Fédération Aéronautique Internationale, the international body that oversees sport aviation. This gives members access to the FAI badge and record system and allows Canada to complete in international competitions sanctioned by the FAI. For the most part, badge and record claims are homologated by SAC volunteers.

6 *Advertising* SAC produces soaring advertising materials for use by clubs. Some are available at nominal cost (less than the cost of production), while some are available free of charge. Clubs can also advertise by linking to the SAC website at *www.sac.ca* Members can advertise free of charge in the classified sections of *free flight* and the SAC website.

7 *SAC website* The SAC website provides a number of benefits in addition to advertising. These include: the member e-mail directory, which allows you to contact an increasing number of fellow glider pilots across Canada electronically; the SAC *Roundtable* is ⇨ **p19**

**The SOARING ASSOCIATION of CANADA**

is a non-profit organization of enthusiasts who seek to foster and promote all phases of gliding and soaring on a national and international basis. The association is a member of the Aero Club of Canada (ACC), the Canadian national aero club representing Canada in the Fédération Aéronautique Internationale (FAI), the world sport aviation governing body composed of national aero clubs. The ACC delegates to SAC the supervision of FAI-related soaring activities such as competition sanctions, issuing FAI badges, record attempts, and the selection of a Canadian team for the biennial World soaring championships.

***free flight*** is the official journal of SAC.

Material published in *free flight* is contributed by individuals or clubs for the enjoyment of Canadian soaring enthusiasts. The accuracy of the material is the responsibility of the contributor. No payment is offered for submitted material. All individuals and clubs are invited to contribute articles, reports, club activities, and photos of soaring interest. An e-mail in any common word processing format is welcome (preferably as a text file), or send a fax. All material is subject to editing to the space requirements and the quality standards of the magazine.

Prints in B&W or colour are required. No slides or negatives please.

*free flight* also serves as a forum for opinion on soaring matters and will publish letters to the editor as space permits. Publication of ideas and opinion in *free flight* does not imply endorsement by SAC. Correspondents who wish formal action on their concerns should contact their SAC Zone Director whose name and address is listed in the magazine.

The contents of *free flight* may be reprinted; however, SAC requests that both the magazine and the author be given acknowledgement.

For change of address and subscriptions for non-SAC members ($26/$47/$65 for 1/2/3 years, US$26/$47/$65 in USA & overseas), contact the SAC office at the address below.



Deadline for contributions:

**5th January, March May, July September, November**

**L'ASSOCIATION CANADIENNE DE VOL À VOILE**

est une organisation à but non lucratif formée d'enthousiastes et vouée à l'essor de cette activité sous toutes ses formes, sur le plan national et international. L'association est membre de l'Aéro-Club du Canada (ACC), qui représente le Canadaau sein de la Fédération Aéronautique Internationale (FAI), laquelle est responsable des sports aériens à l'échelle mondiale et formée des aéro-clubs nationaux. L'ACC a confié à l'ACVV la supervision des activités vélivoles aux normes de la FAI, telles les tentatives de record, la sanction des compétitions, la délivrance des insignes,ainsi que la sélection d'une équipe nationale pour les championnats mondiaux biennaux de vol à voile.

**vol libre** est le journal officiel de l'ACVV.

Les articles publiés dans vol libre proviennent d'individus ou de groupes de vélivoles bienveillants. Leur contenu n'engage que leurs auteurs. Aucune rémunération n'est versée pour ces articles. Tous sont invités à participer à la réalisation du magazine, soit par des reportages, des échanges d'idées, des nouvelles des clubs, des photos pertinentes, etc. L'idéal est de soumettre ces articles par courrier électronique, bien que d'autres moyens soient acceptés. Ils seront publiés selon l'espace disponible, leur intérêt et leur respect des normes de qualité du magazine.

Des photos en couleurs ou noir et blanc seront appréciées, mais s'il vous plaît, pas de négatifs ni de diapositives.

vol libre sert aussi de forum et on y publiera les lettres des lecteurs selon l'espace disponible. Leur contenu ne saurait engager la responsabilité du magazine, ni celle de l'Association. Toute personne qui désire faire des représentations sur un sujet précis auprès de l'ACVV devra s'adresser au directeur régional, dont le nom et l'adresse sont publiés dans le magazine.

Les articles de vol libre peuvent être reproduits librement, mais le nom du magazine et celui de l'auteur doivent être mentionnés.

Pour signaler un changement d'adresse ou s'abonner, contacter le bureau national à l'adresse ci-bas. Les tarifs au Canada sont de 26$, 47$ ou 65$ pour 1, 2 ou 3 ans, et de 26$US, 47$US ou 65$US à l'extérieur.

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**mai, juillet**
**septembre, novembre**

# Letters & Opinions

## Documents required on board during a flight

The GLIDER PILOT REVIEW TEST published in 3/98 *free flight* contains obsolete information in question number 1, "Documents that are required to be on board an aircraft during flight". Among those listed, some still have to be on board but not all, and one no longer exists.

Those required are:
- certificate of airworthiness
- certificate of registration
- radio station licence (if there is a radio)
- proof of liability (an insurance document)
- journey log — not required for local flight (takeoff and landing from the same airport)
- radio operator certificate (if there is radio)
- pilot licence or permit
- medical certificate

Those listed but not required are:
- operators manual — it should be "operation manual". This has nothing to do with the aircraft pilot handbook, but with company operation procedures and is not required for our type of operations,
- weight and balance documents — still needed, but not on board,
- intercept orders — it was required before 10 October 1996, but that disappeared from the new CAR — quite ridiculous in a sailplane.

The one that no longer exists is the licence validation certificate.

One comment on question number 11 — spin recovery: I think it should be emphasized that the first reference for any pilot who intends to do spin training must be the pilot handbook. Failure to do that often explains why some people describe a particular sailplane as spin hazardous (I read that about the Blanik L23 compared to L13).

The pilot handbook also contains important information. For example, the Puchacz minimum solo is 70 kilograms, but for intentional spin training, it is 75 kilograms.

More on question number 21 — wind direction ahead of warm front: where a frontal wave is associated with a depression centre and that wave is moving from west to east in a flat area, it's true that you can expect southerly winds. Otherwise, the answer can be quite different. At our airfield, a depression approaching from the west will bring southeasterly winds, but not so far away (25 kilometres), the Québec airport will have northeasterly winds at the same time. And the "classic" cloud sequence associated with "book" warm fronts is observed in less than 5% of the situations...

**Jean Richard**, CVVQ

## The Downside of Upgrading

*Len Gelfand sure kicked an ant's nest with his opinion on fleet upgrading. Here are some comments which appeared on the SAC Roundtable:*

After reading the inside cover of the last issue of *free flight*, it's easy to see why soaring is dying in Canada. I bashed my head against a wall at SOSA along with some other Board members trying to improve the fleet, but in the end they opted to buy older fibreglass technology and retain the 2-33s and 1-26s. Odd — in Europe they have good numbers in the sport, they don't train in 2-33s or 1-26s, some clubs even offer a Discus as a beginner single seater. Having recently flown Kurt Meyer's Discus, I can safely say that it's as easy as a Ka6, and if money were no object, it should be a single seater in most clubs here too. Derek Piggott shares that opinion as well (*New Zealand Gliding Kiwi*, Aug/Sept 97, p39).

I don't recall my ego being boosted as a result of flying a Twin Grob but I do recall being proud that I could fly it well and then take it 160 kilometres on an afternoon flight. I don't think I was looked upon as a loser for flying a K-13, Blanik, or 2-33, but I was sure limited in how far away I was willing to fly. Obtaining a higher performance two-place fibreglass sailplane allows a club to have a more useful plane in its fleet. One must ask, "What is the purpose of instructing pilots?" Is it to keep the coffers full of money by using a paid-up plane to train pilots? Is it to make better pilots which we hope to retain? Are we training pilots so that they can't stray more than twenty kilometres from the field?

At SOSA the Twin Grobs have the highest use and earn more than the 2-33s, even though 2-33s are what the system pushes as the ab-initio trainer. At Air Sailing the Twin Grob is the plane of choice every day, it gets rolled out first and put away last. Cross-country training can be done in the Twins with much greater ease than in a K-13, 2-33 or Blanik.

If one wants to look at things from a purely financial viewpoint, yes, keep your 40/50 year old planes and hope that nobody knows better. But driving schools don't use Studebakers. If you want your pilots to hang around the club and not achieve anything then, yes, keep them in older planes. By keeping pilots local, the possibility of landouts are reduced, so is damage, and so is liability ... but so is membership. ⇨ **p20**

# impressions of Brandon 98

## a Nationals survival training course

**Ian Spence**, SOSA
(WW)

This contest started with a bang — the left tire on my glider trailer exploded on the Chicago freeway in Friday afternoon rush-hour traffic. Fortunately I was in the inside lane and only doing 50 mph when it happened. My good luck continued with an exit ramp appearing immediately and, after I pulled off and turned right, there was a Goodyear Tire centre just down the road. They still hadn't closed and were able to mount my spare in ten minutes. Doing it yourself is not so easy since the tangle of ruptured steel belts is tough on the hands as Walter Weir found out (he had *two* tires blow on the trip west). If Goodyear had had the correct size of trailer tire in stock I would have had them replace everything, but that had to wait until Brandon.

I knew that Manitoba had been rained on for several weeks before the contest but I was not really prepared for how thoroughly soaked the ground was. With the accompanying hot weather, conditions were optimal for mosquito flight but much less suitable for glider pilots.

*(Tony Burton, EE, comments in italics) I have been building a house addition and had been fighting water and sheets of plastic for four weeks. Now it was Friday, 3 July, two days before practice was due to start, and at the end of my 13 hour drive to Brandon, the waitress at "Harry's Ukrainian Kitchen" said, "I've never seen rain like this the past couple of weeks". Are we talking portent here or what! The prairie weather was totally screwed up — the jet stream was stuck up in the Northwest Territories which locked in unstable, humid air over the Canadian wheat fields. The immediate future was a low centred in North Dakota drifting eastwards and dragging large complexes of cb cells over southern Manitoba. Sunshine was only forecast to appear in four days — the official start. That weekend a monster cell drenched the city. Inuvik hit 31.8°C! Only 18 competitors appeared (including two foreign pilots), the smallest Nationals on record. Kevin (KV) was dragged from Sports to Standard to give them the legal minimum of five.*

I guess we all quickly realized that no matter how much sun we got the thermals would be weak because there was so much ground water to evaporate. As it turned out, weak thermals were not the only problem. For most of the contest the maximum lift was between 1 and 2 knots to about 3000 feet above ground but we also had winds of 15-20 knots added to the pot on the last few days. However, things did get slightly better by the last day when I posted the fastest speed of any at the contest — a blistering 69.1 km/h. The losers in 1-26 contests go faster than that!

Wednesday, 8 July, Day 1
15m: Forrest/Deloraine/Killarney/Brandon – 243 km
Std: Hwy1 Bridge/Deloraine/Killarney/Brandon – 227 km
Sports: Brandon/Deloraine/Ninette/Brandon – 220 km

Day 1 started quite well. I thought that maybe we could race despite the saturated fields on course south of Brandon. A1 (Ed Hollestelle) and I had a fairly good run to the first turnpoint, making 2-3 knot climbs to about 4000 feet above ground, and apart from a nail-biting low near Souris the lift was quite regular. Then I made a huge error at the turn. I was a little ahead of Ed when I saw a large dark cloud about 2 nm outside the course line. With thoughts of super lift I deviated, only to find nothing below my siren cumulus. I lost 1000 feet and 4 nm, putting me well behind Ed. Worse still, conditions had started to deteriorate and legs two and three became a matter of survival. Long glides in virtually dead air got me to the second turn where I was joined by CZ (Christian Beyerlein) and JO (Jim Oke). We all started the third leg about the same time, but took different tracks out of the turn. I met up with JO again roughly half way up the leg. We scratched in very weak lift and I pressed on, only to find nothing further, finally landing in the Souris river valley. JO took a couple of hundred feet more and deviated a little to the east, finding some lift which got him to the slightly better conditions north of the river, and thence home to win the 15m class.

My poor decision making and impatience had cost me over 600 points on the very first day! Ed, Jörg, Christian, and Jim did very well to make it round a rather difficult task. In the Sports class, Hans Berg and Russ Flint also excelled in completing their somewhat shorter triangle that avoided the worst of the dead air in the south.

*Even with only 6 of 18 pilots completing the task over the saturated ground around Brandon, it still turned out to be the best day of the contest! With Jim Oke being the only finisher in the 15m class, he had a wide point spread over the other pilots — putting them in a rather morose mood — and generated a lot of muttering about the scoring formula (which can indeed produce such results when there are only a small number of competitors). Several pilots said that, in hindsight, the scoring for the 15m and Standard classes would have been better had they been combined.*

*The next day was cancelled at noon with the forecast of tcu building in the very unstable airmass the moment the surface inversion broke. The weather was done by the Met section from CFB Shilo; the troops were parked on the airport every morning doing radiosonde balloon ascents. The following day (Friday, 10 July) saw very hot, humid air moving in (30° and humidex 41°C at 5 pm). A contest-long "wait-on-the-grid-for-lift" began with tasking progressively backing off until the day was scrubbed at 3 pm after two sniffers couldn't stay up under the liftless cu at 2800 agl.*

Saturday, 11 July, Day 2
15m/Std: Brandon/Erikson/Neepawa/return – 158 km
Sports: Brandon/Minnedosa/Neepawa/retrn – 114 km

The second contest day was worse than the first. In addition to poor, low lift, we had strong southerly winds. The downwind leg to Erickson was low and slow, but negoti-

able. As soon as we turned the wind became a huge factor. Depending on how lucky you were with the thermal cycling, you either got to the next turn and landed at Neepawa airport, or you went down somewhere in between. After the first two contest days, Christian had to go to meet his girlfriend arriving from Germany — he left for Toronto and was thus spared further punishment.

*Mid-level cloud and light showers moved through mid-morning and the pilots meeting was delayed till noon. The cu looked a lot better but bases were still 2800 feet at 1330. An evil-looking black cloud passed that evening, part of an unscheduled warm front that produced tornadoes elsewhere. Here is Jörg to describe how he won his day:*

From the start it seemed likely that this would be a distance day due to the combination of strong winds and weak thermals. Consequently, I selected my start time exclusively on the basis of weather conditions and ignored what my competitors were doing.

I started at 15:28 from cloudbase with CZ (Christian Beyerlein) in close pursuit. The sky to the north was filled with cu. Unfortunately, most of them were not working or yielding only one to two knots lift. It was no surprise to see MZ (Ulli Werneburg) and my main competitor, A1, catching up when we were forced to work less than one knot before traversing a blue gap.

The wind drift helped us to make reasonable progress despite the weak lift. The already marginal working band narrowed further as the ground rose by 700 feet under the lowering cloudbase. Trying to stay as high as possible, I drifted into the turnpoint together with MZ and A1. CZ had some trouble climbing and followed lower just ahead of the remaining competitors.

It was nearly impossible to make any headway on the second leg with a headwind component of more than 15 knots. After a brief top-up in a thermal, well marked by a large gaggle, the three of us pushed out making use of the height gained on the first leg. There was just no point in hanging around in weak lift and drifting back. Spreading out for maximum search efficiency we tried several promising looking cu without any luck.

Gliding along, we made reasonable distance but also got uncomfortably low. We needed lift soon or we would meet a farmer. A1 aimed for a cloud south of course. I decided to ignore the rule never to chase cu downwind and went together with MZ to a large cloud over a Hutterite colony northeast of course. We were lucky and found a "boomer" of solid 3 knots. The only flaw in the joyful ride all the way up to cloudbase was that A1 had given up on his original plan and was climbing well in the same thermal also. We also had lost about six kilometres due to drift by the time we got to cloudbase.

Gliding towards the second turnpoint we spread out again to maximize our chances to find lift on the way. Despite trying several cu we came up empty and arrived at the turnpoint with just enough height to take photos and make it safely to Neepawa airport.

As MZ and A1 landed I made a last ditch attempt to climb in a broken up bubble over a farm implement dealership. It was pretty clear the day was over but I didn't want to leave any stone unturned to catch up to A1 who was 24 points ahead of me. The lift turned out to be unusable and I lowered the gear. Admittedly, I was a bit relieved to have a good excuse to go for the safety and convenience of the airport rather than pressing on to land in some field with all the risks this involves.

Waiting for our crews we had plenty of time on the ground to discuss the safety benefits of a scoring system that would award extra points for airport landings. Check the SAC Roundtable for discussion of this topic.

*Most of the Sports class came to a stop near their first turn at Minnedosa (also downwind). Hans Berg ridge soared the south facing river valley slope at Minnedosa for 45 minutes to no avail. No one in Sports made the required 50 kilometres to give them a scoring day.*

*On Sunday the hot air left for Toronto in advance of a very intense front with lightning, strong wind and solid rain at 7:45 am. The forecast high was 30° but it held at 25 over the wet ground. The grid wait got going, and the sniffer tried for an hour to reach 3000. The Sports class at the back of the line had its task cancelled, but these pilots had their own grid meeting and voted "no", they wanted to gain a lost day. The revolt was moot though — the sky looked great but it was just a painting, and the day was finally dropped for everyone.*

Monday, 13 July
Day 3, 15m: Forrest / Austin / Brandon – 142 km
Day 3, Std: Power plant / Austin / Brandon – 139 km
Day 2, Sports: Brandon / Carberry / Brandon – 84 km

Weather: Strong westerly winds; thermal strength 1-2 kts, max 3 knots; mostly blue, some cu at 3500 ft in dry areas.

Today, 13 July, had 25-30 knot westerly winds forecast and the task committee set a downwind dash to the farthest turnpoint southeast, Manitou, as Task C. Thankfully (some pilots did not share their enthusiasm for this task) they did not elect this option as the actual winds turned out to be somewhat reduced. Task B was called on the grid, but the launch was very late due to the inability of the sniffer to maintain 3000 feet. Off tow, I discovered that my electric vario and audio were acting strangely and I decided to land. Flying in weak conditions with bad instruments is not cool. I discovered that I had pinched the hose from the bottle when replacing the canopy after installing the GPS-NAV logger. Problem fixed, I launched at 4:30 and made a start at 4:43, probably the latest I have made in any contest. (The start times for our class were all after 4 pm. )

Surprisingly, I had a very good run to Austin, even getting to 4200 feet above ground near Carberry, which felt so high I thought I was in orbit! I caught A1 and JS just after the turn and we made a few circles together as we fought against the 15-20 knot headwind. We then became separated and each of us landed about halfway back with Ed a little ahead and Jörg a little behind. In the 15m class, Ulli and Jim managed to get the last good lift at Carberry and just squeak home — great flying.

*With still only one scoring day in Sports, there was theoretical talk on the grid on how it might be possible to do two tasks in a day. I had my worst contest day in a generation with two relights followed by a straight glide to the Chater airfield startpoint 10.7 km to the east. Then it was another tow back on finding that I was locked in tight behind a high gate ... let's see now ... $100 worth of tows for 10.7 km equals ...?*

## 1998 CANADIAN NATIONAL GLIDING CHAMPIONSHIPS

| | | | DAY 1 | | | DAY 2 | | | DAY 3 | | | | DAY 4 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | day pos | km/h | pts | day pos | km/h | pts | day pos | km | km/h | pts | day pos | km | km/h | pts | total pts | pos |
| **15 METRE CLASS** | | | 243 △ | | | 158 △ | | | 142 △ | | | | 2h PST | | | | | |
| 1 Jim Oke | ASW-20 | 77 | 1 | 58.5 | 1000 | 2 | (89.6) | 492 | 2 | | 52.4 | 970 | 4 | 107.2 | 53.6 | 537 | 2999 | 1 |
| 2 Ulli Werneburg | ASW-20 | MZ | 6 | (65.6) | 165 | 1 | (110.9) | 609 | 1 | | 54.2 | 1000 | 1 | 121.2 | 68.5 | 800 | 2574 | 2 |
| 3 Nick Bonnière | ASW-20 | ST | 2 | (233.0) | 586 | 3 | (76.4) | 419 | 5 | | (59.0) | 222 | 3 | 108.7 | 54.4 | 553 | 1779 | 3 |
| 4 Wilf Krueger | ASW-27 | K2 | 5 | (65.7) | 165 | 6 | (74.4) | 408 | 4 | | (70.7) | 266 | 2 | 121.0 | 63.1 | 715 | 1555 | 4 |
| 5 Dave Springford | ASW-20 | S1 | 3 | (142.9) | 359 | 7 | (67.0) | 368 | 6 | | (0.0) | 0 | 5 | 79.9 | 51.5 | 445 | 1172 | 5 |
| 6 Walter Weir | ASW-20 | 2W | 4 | (129.9) | 327 | 3 | (76.4) | 419 | 3 | | (97.9) | 368 | 6 | | dnc | 0 | 1114 | 6 |
| 7 Alain Orfila | Ventus | RS | 7 | (0.0) | 0 | 3 | (76.4) | 419 | 6 | | (0.0) | 0 | 6 | 0.0 | (0.0) | 0 | 419 | 7 |
| **STANDARD CLASS** | | | 227 △ | | | 158 △ | | | 139 △ | | | | 2h PST | | | | | |
| 1 Ed Hollestelle | SZD-55 | A1 | 1 | 65.9 | 1000 | 1 | (110.9) | 609 | 1 | | (115.2) | 652 | 2 | 135.2 | 67.6 | 799 | 3060 | 1 |
| 2 Ian Spence | ASW-24 | WW | 4 | (178.0) | 365 | 4 | (78.9) | 434 | 2 | | (103.6) | 586 | 1 | 125.2 | 69.1 | 800 | 2185 | 2 |
| 3 Jörg Stieber | LS-4 | JS | 2 | 64.4 | 976 | 1 | (110.9) | 609 | 3 | | (91.2) | 516 | 3 | 0.0 | 0.0 | 0 | 2101 | 3 |
| 4 Christian Beyerlein | LS-7 | CZ | 3 | 43.8 | 642 | 3 | (89.6) | 492 | 5 | | dnc | 0 | 5 | | dnc | 0 | 1134 | 4 |
| 5 Kevin Clifton | ASW-19 | KV | 5 | (48.0) | 99 | 5 | (26.8) | 147 | 4 | | (13.6) | 77 | 3 | 0.0 | 0.0 | 0 | 323 | 5 |
| **SPORTS CLASS** | | | 220 △ | | | 84 △ | | | 1.5h PST | | | | 2h PST | | | | | |
| 1 Hans Berg | Std Cirrus | HB | 1 | 61.8 | 1000 | 1 | 64.7 | 417 | 3 | 45.8 | 30.5 | 101 | 3 | 21.5 | 10.8 | 31 | 1549 | 1 |
| 2 Russ Flint | Std Cirrus | JD | 2 | 50.0 | 830 | 2 | 63.7 | 411 | 5 | 15.9 | 0.0 | 35 | 2 | 49.0 | 48.0 | 139 | 1415 | 2 |
| 3 Charles Yeates | PW-5 | YC | 4 | (164.0) | 498 | 3 | (58.6) | 155 | 1 | 78.9 | 65.0 | 360 | 1 | 66.4 | 33.2 | 160 | 1173 | 3 |
| 4 Tony Burton | RS-15 | EE | 3 | (202.2) | 540 | 5 | (11.3) | 30 | 2 | 77.1 | 0.0 | 181 | 4 | 11.6 | 0.0 | 17 | 768 | 4 |
| 5 Mike Cook | K5 | Z1 | 5 | (182.2) | a-445 | 4 | (31.4) | 83 | 6 | | dnc | 0 | 6 | | dnc | 0 | 528 | 5 |
| 6 Calvin Devries | HP-18 | LT | 6 | (149.2) | 380 | 6 | (0.0) | b-0 | 4 | 24.3 | 0.0 | 54 | 5 | 0.0 | 0.0 | 0 | 434 | 6 |

( ) values in brackets are distances in kilometres if the pilot landed out.
The distances and speeds listed in the Sports class are the unhandicapped values.
Day 3 for 15m and Std was not the same date as for the Sports class.

Notes: (a) 10 pt photo penalty
(b) no start photo

*Next, Russ Flint (JD) gets to describe the day:*

Others were fortunate enough to find a moderately good thermal soon after release from tow. I released at about 3:30 and climbed at 2 knots to 3500 feet above ground — that was already feeling pretty high for this contest. I was turning left and drifting right over the start point, so took a number of start point photos as I circled, and then moved out just ahead of Hotel Bravo. I headed southeast toward the slightly higher ground of the Spruce Woods Provincial Forest where the cu, which had been rather sparse up to this point, were beginning to look more promising. About 20 kilometres out, the hope for a thermal materialized and took me back to 4000 feet. HB came in below but didn't stay; however, we met up again at a decent looking cu north of course from which we were able to run in to the turnpoint with very little loss of height.

The return course to the west looked promising and in fact it was, allowed a straight flight for about half the return distance with the loss of only about a 1000 feet. A climb at this point would have given good height for a dash home had it been calm, but with the 17-18 knot headwind at that height it was barely enough, particularly since there was a big blue hole between us and the airport.

I set out with HB at best L/D for the wind and watched the airport to see if it would rise or fall against my glideslope indicator (the yaw string on my canopy). It did neither! However, I found my speed was steadily increasing and the runway was getting larger. I crossed the airport boundary at 80 knots at 100 feet for a rolling finish on the runway, followed a couple of minutes later by HB. Since HB had started a few minutes after me, however, he had the better total time and won the day.

I tied JD down for the night (I thought) on a beautiful clear evening and left shortly thereafter to look for WW in a rather remote hayfield. The field itself had no roads on any side and was accessible only along a rutted mud track after "5 miles north, 1 mile east, and then 1 mile south" on gravel roads off the Trans-Canada. Ian's main landmark was the transmission line ("1-1/2 miles north"), no houses or farms in sight. However, Ian had walked over to the next field half a mile away where there were "some people talking", only to discover they were cows (dehydration will do that to you!). He finally found a farmer on a tractor and found out where he was! (Oh for the days of map reading before GPS).

Elsa and I found him easily with the directions supplied by the farmer and the derig proceeded smoothly until Elsa picked the second wing ... and found her end weighed 70 pounds instead of the usual 35. Water! We waited for a half hour while the water dribbled from the vent. After a fine late dinner the drive back to the campsite provided a spectacular 11 pm view of two large active thunderstorms to the west. Oh well — pick up Glen and Howard and head back to the field for a midnight derig. And so the day ended — a 1-1/4 hour time on task and another 1 am bedtime.

*The next morning there were boos and hisses when Ulli said he found a 5-6 knot thermal (honest!) to get him home and win. The grid got launched on southerly tasks but it was very scratchy and the last lift many found was over the city. Everyone who left landed out under 50 km away (77, A1, and 2W got as far as Souris airport), so no contest.*

*Wednesday, 15 July*
*Day 3 for Sports: 1-1/2 hour PST*
*The second-last day the task was to be 2-1/2 hour PST for everyone, with a certain desperation showing to get in a Day 4 for Standard and 15m as it looked like a no-go for tomorrow — a Sports class contest had*

*pretty much been written off. Before noon there was a close-packed cu deck at about 2000 feet and we weren't sure if it was going to break up. The Standard class launched into a good looking sky at 1410 but all fell out except Jörg. Then it filled in again and the surface temperature dropped. The Std/15m classes were cancelled and the Sports class was asked if they wanted to try anything (of course they did). They were launched at 1515 on a 1-1/2 PST at which time the air dried out and the day got reasonably decent — there was some 4 knot lift to 5000 asl to be found! Charles Yeates (YC) earned a derated 360 points with an O&R to a close turnpoint to the west. 2W damaged his ship on a "fun" flight on landing in a tall crop (see his report on page 22). All three classes now needed one more score. Back to Ian:*

Thursday, 16 July, Day 4
All classes: 2 hour PST with start at Forrest

By the last day of the contest I was sick of meeting new people in agribusiness. The weather was awful — a thunderstorm during the night and a complete overcast with occasional showers in the morning. Ulli and my crew Tanner went golfing! I packed up the trailer for travel and then wandered over to the flying club to do some more bitching about the weather. As usual, at the pilots' meeting, Contest Director Glen Buhr instructed us to hurry up and wait. By noon there were some cu to the north so Glen said "rig and wait".

I was convinced that this would not be a day and others agreed (notably S1, K2, and LT). We spent a couple of happy hours together debating the intelligence of those who were rigging and gridding their ships. By launch time around 2 pm (for the entire Sports class this time, not just a sniffer), there were some sick cu at about 2500 feet. The rest of the fleet was duly launched and struggled to stay up. Incredibly, there was only one relight. Nonetheless, nobody seemed close to getting to 3000 feet and those of us still on the ground were secure in our conviction that no task would be called or flown. The golfers returned about 2:30 after their eighteen holes and joined us in ridiculing the poor souls now engaged in low-level grinding and bug bashing. And then the unimaginable happened. A huge scallop formed in the edge of the overcast, revealing sun and bright blue sky ... we rushed to rig our gliders.

Ulli and Wilfried went through the gate at 3:20 with Dave not far behind. I was still earthbound because I had forgotten to bring my batteries from the motel and had to retrieve them. Soon I was in the air and made an immediate start at 3:33. The task was a desperation two hour PST with no turnpoint restrictions — even the close-in startpoints were valid. The task committee (Jim Oke and Nick Bonnière) had to do anything to get a contest day and an official contest! The smart money (Hollestelle and Spence) figured that repeatedly running a small triangle or quadrilateral could pay dividends with little chance of an outlanding. The Geritol set, still with a touch of adventure in their souls, decided on interesting destinations like Carberry, Neepawa, and Wawanesa, making daring but leisurely trips into land-out country. Some even returned.

Curiously I did not see Ed on my recurring quadrilaterals, except near the end when we circled amiably together at the Chater airfield startpoint. He was just about ready for final glide where-as I, having started later, was planning a 16 kilometre out-and-return to the Forrest startpoint after visiting Brandon for the last time. As it transpired, I pipped A1 by a single point to win the day. Ulli won the 15m task and so the inescapable conclusion is that if you wish to succeed in gliding competition either you or your crew should play 18 holes before taking to the skies.

So at the end of the day it must be said that Brandon 98 was not a great flying contest, even though we had lots of good times on the ground and even a few interesting moments in the air. We all got to meet some great new people and to talk soaring for hours on end. The efforts of the stalwarts from the Winnipeg Gliding Club were much appreciated by everyone, despite adverse circumstances and terrible soaring weather. Finally, fortunately, despite all the difficulties, the competition did produce worthy champions — Jim, Ed, and Hans — great scratchers all!

*Notable was Ed Hollestelle's score of 3060 points out of a possible 3061! Maximum points for the Sports class was 1937 — a good indicator of the conditions, as was the Dow trophy fastest triangle speed of 65.9 km/h by Ed on Day 1. Finally, here's Howard Loewen, on the organization:*

Organizing the 1998 Nationals only started in January. Winnipeg was originally scheduled to host the 1999 Nationals but with the Pan-Am Games taking place in Manitoba in 1999, and the club originally scheduled to hold the 1998 Nationals expressing concern about being ready, a swap seemed to make sense. The 1990 Nationals had been moved to Brandon from Winnipeg's field at Starbuck when two weeks of rain turned the field into a sea of mud. This time around we decided to skip the move and start in Brandon. The Brandon Flying club generously provided the contest the use of an office and their large briefing room for pilot meetings. The Brandon airport agreed to let us use their 6000 foot long main runway. The close proximity of the airport to the town would allow convenient access to hotels and restaurants and, best of all, there were virtually no airspace restrictions!

All we needed was good weather, and the Brandon region got 200% of its normal June rainfall. This was too much even for the farmers! One week before the contest, the Pawnee we'd arranged for suddenly became unavailable. Fortunately at the last minute we were able to borrow a Scout from the Regina club (who even shut down for a weekend so we could have it for the duration of the contest). Hats off to the folks in Regina! After the contest ended, I counted fifteen members of the Winnipeg Gliding Club who had assisted either planning or running the contest. This represents nearly half of the active membership of the club! ❖

The winners: Hans Berg (Sports), Ed Hollestelle (standard), Jim Oke (15m)

# *To go(lf) or not to go(lf) ... ?*

**Ulli Werneburg**, MZ

The last day of the championship dawned with milky sunshine locally and a dark sky to the west. Since the darkness was approaching rapidly and the sunshine retreating to the east, I resigned myself to another cancelled competition day, the seventh of the competition. My crew, Ken Brewin, had already left for the sunny east via Air Canada. I decided to pack the trailer with various bits and pieces such as the largely unused water ballast containers, water hoses, pumps, dollies, etc. etc. to get ready for the long trip home.

What to do for the rest of the day? While entertaining myself with thoughts of the delights of Brandon on a (another) rest day, Ian Spence drove up accompanied by Tanner. I had already found out that Tanner was an avid golfer. As we stood there, it began to rain a little bit and, after the many disappointments of the previous couple of weeks, my brain sort of snapped. On the spur of the moment, I suggested to Tanner that we should leave immediately for the local golf club for a quick round of golf. No sooner said than done and by 9:45 we were teeing off with rented clubs, rain hats, and a giant supply of bug repellant to fend off the ever-present swarms of mosquitoes.

The game progressed well, with the mosquitoes being held at bay by the bug spray and the giant dragonflies riding shotgun. Tanner turned out to be a pretty decent golfer, but my own game resembled the blast-off-and-pray routine of early WWII German rocket tests. Fortunately, the course was well treed and therefore I wasn't tempted to look at the surrounding sky too often. When I did, it more or less confirmed my earlier forecast of a non-flying day. By about noon, it was still sprinkling slightly but it had warmed up considerably and I could see some more consistent sunshine to the north and even the odd, low hanging, soggy scrap of cumulus. This, however did little to deter me from the task of the day — to hit golf balls at as many trees as possible.

Nevertheless, by the 13th tee I was starting to get a little nervous since the sun was definitely out and the number of cu was increasing. But, we had only a little way to go and I figured that we could be finished by 2 pm which would still be plenty early to rig and fly if anyone would be so foolish as to try that. Unfortunately, just at this moment the group ahead of us chose earnestly to look for lost golf balls, have time-consuming chats in the middle of the fairway, and run hither and yon for what purpose we could not tell. Sensing that I was getting a little fidgety, Tanner assured me that if a task had been set Ian would surely come to the golf course to tell us about it. Since Ian was nowhere in sight, I reasoned (?) that the day had indeed been cancelled and that we had plenty of time to admire the players in front of us cogitating over their shots. Finally, the clubhouse hove into view and the last shots were played at 2:30. While still pretending to be cool, I ambled (quickly) to the car and then hot-footed it to the airport, scanning the quickly improving sky for sailplanes.

Not to worry! When we arrived, one quarter of the Standard class (Ian) and a third of the 15m class (Wilf Krueger and Dave Springford) were still telling each other jokes about flying on a day like this while still admiring their gliders in their trailers!

"But where are the others?" I asked innocently.

"Why, they're flying!" they replied with great guffaws. And on top of that, they've already opened the gate by mistake", they laughed (as cloudbase wasn't at 3000 agl yet).

They all thought that this was quite funny, but a quick mental calculation told me that it wasn't quite as humorous as they thought, particularly since the sky was improving by the minute.

"Well, I'm rigging", I said, and that prompted a flurry of activity as four gliders were readied in record time. Calvin Devries, his crew Terry, and Christine Futter kindly provided instant assistance. I learned about the task (a two hour PST) while jogging down the taxiway, pushing the glider to the take-off point with Calvin and Terry, and was airborne a couple of minutes later at 3:15! Wilfried was up right behind me and together we thermalled up for a start at 3:22.

The actual flight was really quite anti-climactic. We found the usual weak thermals to 2800-3000 feet agl but because there was little wind we could make reasonable progress. I headed for Rapid City, then to Chater, and then retreated to my favourite area out to the east, the Spruce Woods near Carberry, where I found the usual better conditions. A nice 2-3 knot thermal there got me a quick glide home.

When I added up my distance a bit later I realized that I had almost exactly matched the distance flown with my earlier golf score — about 120. Was this a first for Canadian gliding? The speed turned out to be a snail-like 68 km/h which was, nevertheless, my fastest flight for the competition! So ended the last day and the contest, fortunately now with four competition days and official champions.

# Spending Easter in the trees

**James Swank**, from *Vancouver Soaring Scene*

***thoughts about the crash of '92***

*"VSA* ***ground, this is glider Victor Sierra November."***

***"Go ahead Victor Sierra November."***

***"I have crashed in the Bowl and I am not injured. I say again, I have crashed in the Bowl and I am not injured."***

... How did I get into this situation? What important lessons did I learn (besides listening to my wife, Hana, who was insisting that we go home early that day); and why write such a downer of a story now, six years later?

Why indeed? Well the answer to that question is that I do it for you in the hope that you will learn something that will keep you out of the trees. It is not easy to write about an accident. When you crash a glider, the automatic inference is that you are not a good pilot, or that you are a failure. Psychologically, it is a devastating experience. As all who have been down this road know, it takes time to heal and to come to terms with your experience. In my case, I had the experience of a delayed response. The shock did not take effect until months after my accident.

My inspiration for writing this story comes from club members George Eckschmiedt and Ian Ward. George has written many excellent articles on safety and accident reports stressing the need for pilots to tell their stories so that others may learn the lessons and avoid similar incidents. And Ian Ward was surprised to learn one day that I had crashed on the back of Dog Mountain. He said: "if it can happen to a pilot like you, I would like you to tell me what happened so I don't end up in the same situation."

So ... here is my story. First, it's important to understand my progress as a glider pilot prior to the accident to appreciate the frame of mind I was in on that day.

Hana and I joined VSA in April of 1991 and both of us started our student training. We were "keeners" in that we were flying virtually every weekend. My progress as a student pilot was quite rapid. I soloed in early July that year and did my licence flight in early September, followed by ground school in November and the Transport Canada exam in December. In the spring of 1992, I was a confident low time pilot and ready to take on the world. The Blaniks fit me like a glove and I had 30 hours of solo time and 20 hours of dual logged. Now I wanted to make the transition from the Blaniks and fly VSN, the G-102 "Baby Grob". I started doing dual instructional flights in the Grob-103 to prepare for the transition.

On 19 April 1992 I made my first solo flight in VSN with a 3000 foot tow in the middle of the valley followed by a second flight that day of 47 minutes with weak lift on the Knoll (just on the south side of the airport). The following day (Easter Monday) the soaring conditions were marginal and my first flight of the day was 23 minutes. I wanted to soar — to get altitude! I wanted to get some altitude so I could have breathing space to really get comfortable in the Grob-102, but it wasn't that sort of day. It was early afternoon and Hana was urging me to pack up and go home as we had been at Hope for the whole Easter weekend.

| | |
|---|---|
| Rule number 1 | Listen to your wife. |
| Rule number 2 | If you fail to listen, don't immediately go out and crash a glider. |

Well guess what? I didn't listen to her advice and went for my fourth flight in VSN. Rudy Rozsypalek radioed down to say that he was up to 4000 feet in the Bowl (the "house ridge" to the northwest of the airport). That was all I needed to hear and I took a 2000 foot tow over there. What was I thinking about — lift, gaining altitude, and getting up to where Rudy was flying. I was gung ho and overly confident. The world was in my hands. I was flying sexy glass gliders! What more could you ask for?

The Bowl. Well, what about it? Not very much. A vast majority of my flying up until this time was on Hope Mountain and the Knoll. I had never scratched in the Bowl and had very little experience slope soaring in this area.

Harald Tilgner was the towpilot and he dropped me off in a weak thermal. I figure-eighted in this weak lift and flew out of it. I then flew back to the east toward the crook of the Bowl. Rudy, who was flying above me in KMY, radioed that there was weak lift just ahead of me. Sure enough I flew into a band of weak lift. Once I had entered the band of lift I turned away from the ridge to the right circling around in a figure eight (the topography of the bowl in this area is such that it is a gentle slope), but I turned into the ridge too much and at the transition point when I began my left hand turn back away from the ridge, the trees started coming closer. I was losing altitude, I pushed the stick forward to gain airspeed but it was too late.

In a split second the trees came up at me, there was the sound of trees against fibreglass, a few gentle bumps followed by a gentle impact and the glider stopped. I opened the canopy and stepped out. I equate the impact to a 15 km/h fender-bender in a car. The nose of the glider was resting on a large rock. My saving grace was the vine maple trees. It was springtime, the maples had just "flushed" and were therefore very elastic. The impact was cushioned equally on both wings by this grove of maple trees. They absorbed all of the energy of the impact before the glider contacted the ground. Ten feet to the right one wing would have hit a large stump, and ten feet to the left I would have impacted on a rock field. I came down in the perfect spot.

⇨ **p15**

# The elements of handicapping gliders

*Part 1*

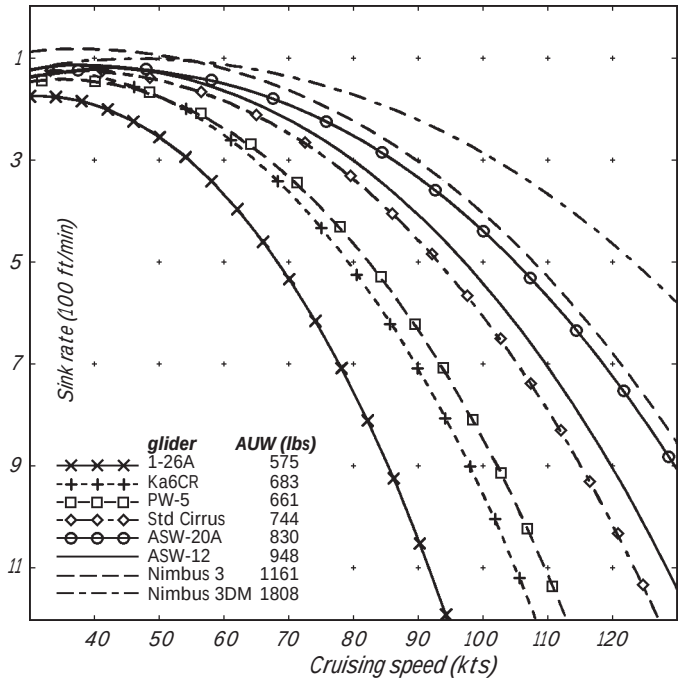
**Carl D Herold**
from *WestWind, the journal of the Pacific Soaring Council*

My first endeavour at handicapping started in 1963, when I made changes to the handicapping process for the Sawyer Award in Northern California. In the 35 years since, I have amassed a lot of data, experience, and wisdom characterizing contest weather, pilot experience, and glider performance for contests throughout the USA and the world. I have shared information with handicappers over the years representing soaring in England, Germany, Australia, New Zealand, and other countries.

In developing and updating the CH handicap over the years, I have been aided by many pilots, glider owners, contest directors and handicappers. The current application of the CH-98 handicap includes the sanctioned Sports class contests, the World Soaring Award, the Hilton Cup (USA), and many regional and club soaring activities throughout the USA.

The introduction of handicapping to soaring has had a major impact on soaring participation in our sport. These handicapped events have embraced more cross-country soaring pilots with less competitive gliders in the USA than all of the SSA-sanctioned Regionals combined. I believe it has provided the stepping stone which bridges badge flying to sanctioned Regionals. At the local level, it has been a factor which has increased structured, cross-country recreational soaring. It has been another important factor which has increased retention of our soaring members.

*Figure 1 Sailplane polar comparison*



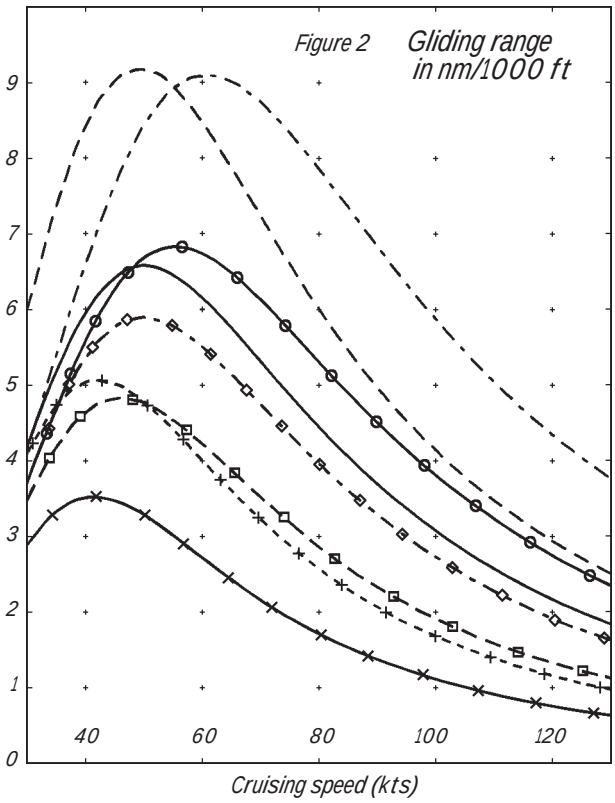

**The handicapping process**

The process I employ to assign a handicap number is based on a broad approach of using mathematics, science, and engineering to understand the interplay of dominant factors such as span, aerodynamic refinement, wind, instrumentation, and wing loading. This process also includes heavy dependence on flight test polar measurements, followed by pilot inputs, manufacturers' sales and pilot handbook data, measured weight and balance data, and most important, the contest performance of gliders and pilots throughout the world. You will find that in spite of the theory, the actual contest performance of consistently performing pilots has more to do with placing high than the handicap. In past years, I and many others have won contest days by our consistent performance with lower performance gliders. In addition, the contest rules can also impact heavily on the handicap results. If a glider can't finish a task, the handicap doesn't have a chance to work for that pilot/glider combination. The impact of the inexorable technology improvements on instruments, gliders and pilot techniques also has a big bearing on the continuing reappraisal of what constitutes a fair handicap. For gliders of the same vintage, the problem of assigning a handicap is easier to address. For covering the extremes in glider performance, the handicap will be perceived to be more fair to the finishing high scorers.

With this introduction, I will write a continuing series of short articles on the use of glider performance testing, mathematical models, and contest performance data which has contributed to the handicap development process. The topics will include the impact of density altitude, wing loading, winglets, start gates, wind, task types, rule changes, expected conditions throughout the country, and the impact of technology on cross-country performance. I will publish contest data showing the years it takes a new class to mature. I will publish statistical data ranking the soaring attributes of contest sites.

**What's fair?**

How can one make a fair handicap with all these variables for over 324 different types of gliders in the USA inventory, and at least another 200 glider types elsewhere in the world? The included gliders range from less than 20:1 in L/D to over 60:1 with a wing




loading ranging from 2.5 psf to over 12 psf. Combining these two factors results in a simple performance "space" of over 14:1 — and that doesn't include wind and thermal strength impacts!

Figures 1 and 2 show performance data for eight gliders ranging from the 1-26 through the self-launch Nimbus 3DM. These figures begin to show the handicap assigners the challenge it is to develop a fixed handicap number for each glider to equalize glider cross-country performance in a fair manner for a wide range of soaring conditions. This is just the beginning of understanding the challenge of handicap assignment. A first step is to define the desired objective in assigning a handicap. I have maintained a consistent objective over all these years.

Is it possible to fairly compare these gliders by a handicap? The answer is of course NO, but in spite of this, many pilots are willing to participate with these numbers. Why? Because it is much fairer and more fun for pilot comparison in many soaring activities than no handicap at all. I hope to concentrate on displaying results for easy understanding.

Handicapping throughout the world is alive and well. Those premier pilots who race and fly records to represent their country for recognition are racing the best gliders and equipment in the world. They represent a very small elite group of very skilled pilots. The rest of us are in the dominant majority of soaring pilots without the best of equipment and time for becoming the best. That is what is attractive to this latter group about Sports class and handicapping. More later. ❖

# A benign spiral experience

**John De Jong**
from York Soaring *SOAR TALES*

I was flying in Minden Nevada this March, and I was asked to write about an interesting experience that I had there.

The conditions were weak wave, maybe 3 knots, usually averaging much less and cloudbase was about 11,500 feet. I was flying with Chris Mallmann in one of Soar Minden's G-103s, and having fun scooting along the side of the lennies. The winds were not strong enough to just park in the wave and climb. The gaps in the cloud had been opening and closing, but there had always been a few large openings around so I wasn't overly concerned, mainly because I never managed to get above the clouds, I was always beside them.

The lift had been weakening and I made a medium 90 degree turn to the left to move in closer to the cloud to try and find some stronger lift (the strongest I had found previously was right close to the cloud). Due to the lack of contrast in the cloud I suddenly realized that I was closer than I thought, and made a steep 180 to the right to stay clear (I had flown into a cloud "valley"). Imagine my surprise to find that there was no gap behind me where there had been a fairly large one only seconds before. My first reaction was to swear to myself and the beginnings of panic started. I had heard stories of this happening before however, and had earlier determined a course of action if this happened to me, so I put off the panic and set to work doing what I had previously planned.

There I was, in very weak wave (less than a knot), clouds both below and above me in all directions (I was in a depression in the top of the cloud), and I couldn't seem to climb out and over the cloud. In addition there was "cumulo-granitus" 3-5 miles to the southwest at 10,500 feet. Luckily the wind was from the southwest and was blowing me away from the mountains.

So what I ended up doing was flying to the lowest visible point that I could get to and then took advantage of the fact that the Grob I was flying was capable of doing a benign spiral (a little-used maneuver in Ontario). For those people who have never heard of a benign spiral, it is a condition that many (but not all) gliders are capable of where the glider is dynamically stable in all three axes. To achieve this you trim the glider out to some moderate speed (I trimmed for about 60 knots, the lowest I could get), pull and hold full spoiler, and take your hands and feet completely off the controls.

At this point you are just along for the ride, and the *last* thing you do is touch the controls. Once this is all done the glider will settle into a stable turn, and after any change in attitude due to turbulence the glider will return to the previous turn. This is an exercise that can easily be tested in any glider. It is often shown to people at York when they get checked out in the Blanik.

After pulling full spoiler we descended through 2000-2500 feet of cloud (the most nerve-wracking flying experience I have ever been through) until we popped out below ⇨ **p18**

## Eastern SAC instructors course a success!

**Wayne McLeod**, Bluenose Soaring

This year's course turned out six new instructors to terrorize four Canadian gliding clubs. The clubs represented were Bluenose (Wayne McLeod and Dan Daly), Gatineau (Jeffrey Waters), Montreal Soaring Council (Otto Doering and Marc Gohier) and SOSA (Peter Vados). The course director was Ian Oldaker, assisted by Tom Coulson of SOSA. Our thanks to both Ian and Tom for taking the time to process new instructor "wannabes". Each of the students achieved marks high enough that a rewrite for instructor's upgrade would not be required from Class 3 to Class 2 or 1.

I arrived at Gatineau on Saturday, June 20, in what appeared to be a heat wave to this Bluenoser. I've heard of these places of oppressive temperature, but have never experienced one living in the Maritimes. Our summers in Nova Scotia are usually scheduled for the first *three* days in July at about 26 degrees Celsius. Boy, was I unprepared ... talk about dehydra-tion. How hot was it? It was so hot that I cooked lunch on a Blanik, so hot that I left the soles of my shoes burned into the runway — you get the idea.

I appreciated the efforts of Martin Lacasse and Bob Mercer who made this newcomer feel welcome, and each of us on the course appreciated the dedication of Ian Oldaker and his ability to effectively communicate what we needed to make the transition from pilot to instructor. I for one was quite amazed at what I learned. It was clear to me on the first day that piloting your own aircraft for your own enjoyment is one thing; teaching what you know is quite another. All of us realized that we were playing in a whole new arena — now we had to take what we knew and try to package it in such a way that a new person to our great sport could readily understand and comply with our requests.

Now, having Ian or Tom as our 'pretend' student was stressful enough, but we had more. We were requested to take tape recorders with us during our instructional flights so we could learn about our speech habits. STRESS! Oh well, in the evenings we had the opportunity to relive that stress when we sat around the 'roasting' table to listen to each others recording. We were all *talking too much* and using the *wrong words*. This could only help to confuse an ab-initio in an already confusing time. The purpose of this exercise was to solidify the recommended teaching methods of simplicity and consistency to ensure a solid foundation for the student to build upon. Let's face it, we all have different phrases and words used in teaching, would it not make sense to have a uniform method across Canada? I believe it does and will do my best to use the KISS methodology.

Lectures were also on our agenda to prepare and present to our peers, and more learning took place for us teachers. It is true that we also learn by teaching.

It wasn't all work, we did have the opportunity to watch Martin Lacasse, the great bow hunter, in action with his stealth, prowess, and cunning ability to stalk those life threatening, flight interrupting ground hogs. It was a sight to behold, those pesky vermin challenging Martin to do battle on their turf. He was quick, agile, and a master at battle strategy — Martin was good too — but its days are numbered.

Aerotow was quite an experience when you are accustomed to winch launch, a process that takes 45 seconds from ground to 1500 feet agl. Being towed behind a Citabria was a unique experience that took 10-14 minutes to an altitude of 3000 feet. Those comparative extra minutes on launch allowed me to open my mail, read the local paper, and catch a few zzzz's. I jest; it was a challenge to keep the glider in the right location behind the towplane. It's a skill that takes a bit of time to master, thanks to all who helped us.

The course emphasized some basics that even high time pilots need to practice, like circuit planning, judgement training, safety and my personal favourite — spins. The Puchacz does spin nicely and the K-13 is similar to our K7, except the K-13 has rear seat visibility. There were many topics, too numerous to mention, but I suggest a re-read of SAC's *Soar & Learn to fly Gliders* as there is a wealth of information there that we all need to polish up on.

One of the most memorable topics learned was the *Law of Primacy* which states that the first demonstration we witness we tend to remember. So, when we teach something to a student, we better do it correctly the first time or we may be contributing to sloppy flying habits. Yes, the instructor has many hats to wear, many things to teach to produce a safe and competent pilot. We have the responsibility to be at our best when we instruct, to give our undivided attention and be a diplomat by not saying the *wrong words* when the student almost sends us to eternity. All of us should remember to use the **SOAR** technique in our decision making, as it may save our life. **Situation** – see the situation; **Options** – what are your options; **Act** – take action on your best option. **Repeat** or Re-assess. We pilots should never get to a point where we have no options other than a dangerous one. You *do* have choices, know what they are. I would encourage other pilots to take the course as you will learn much useful information that will help you improve your own flying skills. The course was a valuable enhancement to my flying ability and it just might help you too.

Special thanks to Yvonne Oldaker for preparing so many meals for us busy students — after four hours of classroom lecture we had a hot lunch on the table, after several hours in the hot sun on the flightline in the afternoon there was a delicious meal awaiting us. Before we went our separate ways, the entire course and some guests went out to *East Side Mario's* in Orleans to celebrate. It was a terrific meal with great company and lots of fun. This was an enjoyable experience that I will remember for years to come. A special thank you to Gatineau Gliding Club for graciously hosting this year's instructors course, and to anyone that helped out that did not get a mention. To all of you, I tip my hat. ❖

Course director Ian Oldaker is in the front of the GGC Puchacz, with student Wayne McLeod in the back seat and Otto Doering looking on.

### ... Easter in the trees from page 11

I contacted VSA Hope operations on the radio informing them of my situation. I was instructed to stay with the glider and maintain radio contact while they figured out the best plan of action. Harald landed the towplane and took Hana up so she could see my situation and make visual contact with me. I was able to stand on a large stump and wave as they passed by to confirm that I was not injured.

On the ground all authorities were notified of the crash including the RCMP, the Rescue Coordination Centre in Victoria, and the Hope Search and Rescue. The plan was for me to spend the night on the mountain and have Hope Search and Rescue hike in and escort me down off the mountain. The RCC called in and notified us that 442 Squadron in Comox would send out a Labrador search and rescue helicopter to extract me from the crash site. So I just sat tight and waited.

... A lot of things go through your mind. The most overpowering feeling is a sense of shame and guilt in having damaged a beautiful club glider and denying its use for club members. The first thing I did was to sit down and write down exactly what happened while my memory was fresh. I wrote a 300 word report on the back of a tow ticket — I still carry this ticket in my flight case. One of the feelings that I noted was that this accident did not make me afraid of flying. I noted that I wanted to be able to "put this behind me and continue to enjoy soaring".

About 7:00 that evening the Labrador made radio contact with me and finally visual contact with the crash site. The glider was easy to spot with the tail sticking up in the air. The Lab made a few passes to plan their approach. They slipped over me and stayed in a hover 100 feet or so above. A SAR tech was lowered on a cable and quickly made a check to confirm that I was not injured. He quickly gave me instructions on the use of the harness, I picked up the parachute from VSN, slipped into the harness and they winched us both up into the helicopter. This was my first helicopter ride — I would have preferred different circumstances.

On landing at the airport I was checked over by the ambulance crew and given a clean bill of health. I was also presented with a memento by the helicopter crew — a bumper sticker which held the squadron logo and the caption:

**My ass was saved**
**by 442 para-rescue Comox**

(I stuck it to the fridge in my kitchen.)

It was hard to face my fellow club members. But those were only my internal feelings. The support I received from my wife and fellow club members was very uplifting. You cannot imagine how that makes you feel. I cannot explain it — it is part of being in the glider pilot fraternity. We support each other in good times and bad.

*ANALYSIS*

This accident was caused primarily by pilot error, my error in judgement. Analyzing the flight, I turned too far into the ridge, when I rolled left away from the ridge I lost airspeed and was probably close to stall speed and the glider mushed into the trees. In addition, at the point where I turned, it was on the lee side of a small ridge. The air in the Bowl was sweeping around up the front of this small ridge and then down on the lee side. At the point where I made my turn, I was in sink.

How could this have happened?

1 It was only my fourth flight in a new glider. I should not have been scratching or flying on the ridge in weak conditions. I was thinking more about gaining altitude than concentrating on flying the glider.

2 All of my reflex responses and experience was in flying the Blanik. The Blanik has much better roll response than the Grob, and the sound and visual cues are much different. In a critical situation my responses were appropriate for the Blanik but not the Grob. In the Blanik you are sitting fairly upright, in the Grob you are reclined with a very different perspective.

3 Overconfidence. Yes, I was overconfident to the point where I thought that I could jump into a new type of glider and start where I had left off in the Blanik without allowing myself the time to gain experience in a new type in a gradual manner. I should have not been on the ridge! I should have taken high tows out in the valley and gradually worked my way towards soaring on the ridge, particularly in marginal lift conditions.

4 Low airspeed on the ridge. A statement Rudy made sticks in my mind: AIRSPEED IS YOUR GOD ON THE RIDGE! Too true. You can never have too much airspeed when ridge soaring, especially when flying a glider that is new to you. Excess airspeed gives you your margin of safety. Listen up students! Yes, you have better climb rates flying at 40-45 knots on the ridge, but understand what this lower airspeed does to the glider's turn response. Now I am not advocating ridge soaring at 65 knots, but clearly understand the reduction in safety margin as you decrease your airspeed on the ridge. Have or learn situational awareness!

These issues also relate to the approach the club takes towards glider transition training. As a training organization we need to reinforce the steps towards transition. Clearly a pilot who has flown different aircraft before will instinctively go through this process, but a student who has only flown gliders and only one type must have more guidance as they go through this transition process. It is a sobering statistic that three out of five major accidents in the Vancouver Soaring Association since 1992 have involved low time pilots who were in the initial stage of transitioning from Blaniks to single seat gliders. We need to reinforce the importance of closely supervising pilots who are making this transition.

For myself, I am content to fly the Blaniks. At this time in my life I do not have the time and money to fly enough to make the transition back into the single seaters. Eventually I will make it there again.

Remember, when you see me flying the Blaniks on Hope Mountain or in the Bowl at 50+ knots, just think of this — I've been down there in the trees where gliders have no place. I have felt the crunch of tree on fibreglass, I have felt those sickening feelings that accompany a crash, and I have successfully dealt with the psychological impact that accompanies being in the trees.

And when I fly a little fast on the ridge I'm giving myself a little extra margin, because I'm *not* going down there again. ❖

# hangar flying

## the Röger hook

Studies by some German universities determined that it is very difficult to jettison a canopy safely and cleanly. The problem with the typical canopy occurs after it is detached and the pilot pushes up the front. Instead of the wind catching it and flipping it over the top of the glider as intuition suggests, it begins to generate lift. The front pitches down, and the canopy "hops" backward rapidly, such that it can hit and incapacitate the pilot. In the worst case, it will also hit the tail surfaces, further disabling the glider.

The solution devised is called the Röger hook, after the inventor (the English spelling is "Roeger", where the "oe" is pronounced as in Goethe). In essence, the Röger hook is a pivot at the back of the canopy about which it pivots during an emergency jettison. With the pivot, the canopy cleanly and quickly departs the glider, leaping up well over the pilot and tail. At an SSA convention a few years ago, there were dramatic videos shown of an Akaflieg's testing of this concept. Anyone that saw these videos should want a Röger hook!

Current production of the glider that I own (the ASH 26E) includes this hook, so when the factory offered a retrofit kit for earlier serial numbers, I ordered one. The parts cost me about $US90 from Schleicher, and FibreTech of Nampa, Idaho, installed it for about $500. The total cost of $600 seems a good value for the ability to rapidly, reliably, and safely jettison the canopy in an emergency. A parachute costs even more at $1000, and is of limited use if you can't get rid of the canopy! The only disadvantage of the retrofit (besides the cost) is a canopy that is slightly harder to open for the first half inch, due to the force of the springs clasping the hook. The hook itself and the spring mount on the fuselage just behind the pilot's head are almost unnoticeable.

Almost all current production gliders feature a Röger hook, and the manufacturers offer kits for some of them (for example, the LS-6 has one available). Contact your dealers to request a Röger hook kit, and have it installed if it is available.

**Eric Greenwell**, from *Towline*

## New aerobatic Blanik

The latest addition to the Blanik family is the L13AC Blanik. This is an aerobatic version of the L13, primarily intended for dual aerobatic training as well as elementary glider training. It has the same cockpit as the L23 Super Blanik, a one piece canopy, the tail of an L13, and shortened L23 wings. The market for the L13AC Blanik are clubs and commercial and military schools where instructors and other pilots are trained in mastering basic aerobatic maneuvers.

The aim of the L13AC Blanik is to promote instruction in aerobatics, including recovery from unusual glider attitudes. The availability of this kind of glider, similar to the original Blanik, will enable instructors to refresh their aerobatic skills and to pass the confidence gained on to their students. The advent of the L13AC Blanik heralds more participation in glider aerobatics and will bring a boost to the sport of soaring.

## Grease those clamshell struts!

Pilots with clamshell-type trailers like the Komet should be sure that they are regularly greasing all three grease nipples on the lid support arms on both sides. Terry Southwood of Cu Nim had a top hinge bolt shear off on his trailer at Golden and I found a sheared bottom hinge bolt on my trailer when I looked at mine.

This most likely will require replacing the original factory nipples with "North American" nipples as most grease guns will not work with the factory nipples. Replacing the nipples is a fairly easy process as long as nothing is completely seized up. The factory nipples are just pressed into the holes, so they can usually be twisted out with a pair of vice grips. I used 1/4" straight grease nipples from Canadian Tire (about $2) and they self-threaded into the existing holes in the support arms quite easily. People may also have to "dig" out the old petrified grease and gunk before threading in the new nipples. A small screwdriver and some WD40 work well.

**Keith Hay**, Cu Nim

## Taking a hard look at Canadian competition

When pilots experience a Nationals which is a few standard deviations to the left of centre on the Bell curve (ie. not too good), there is the natural tendency to see if things may be changed so that it never happens again. It's not an overreaction, because such an occurrence is as good a time as any to examine the status quo.

By the time you read this, there is likely a good discussion going on the topic at the SAC website *Roundtable*. Please have a look and contribute positively. The Sporting committee will be active in this process.

**Tony Burton**, member Sporting committee

## Writing a CD Bible

An idea surfaced at Brandon that is so good and so obvious that I don't know why I didn't think of it before — there should exist a Contest Director's cookbook on how to *run* a contest which parallels the current detailed contest manager's cookbook that I wrote on how to *organize* a contest.

Anyone who has been to a few contests will appreciate the effect an experienced CD has on the conduct and even the results of a contest. So if a CD had access to a how-to-do-it manual of the collected wisdom of past CDs and pilots, it can only help. The book would contain practical information such as:

- the power of the CD and how to use it effectively (top of the list for God),
- how to control the contest environment,
- the full range of tasking options, the conditions under which to use them, and how and when to change a task effectively,
- efficient gridding & control of the launch,
- how to avoid wasting time,
- starting and finishing considerations,
- tactical considerations for poor weather and/or late starting days, etc, etc.

I'm prepared to compile and edit a manual from such information as comes my way. Over the years, there must be a lot of pilots and past CDs who have useful ideas to contribute. Be specific. Give them to me in point form — under circumstance A the CD does B, then explain why. Past CDs: send me your competition reports.

**Tony Burton**

## Canadian Air Regulations – introduction

**1.000A** No pilot or pilots, or person or persons acting on the direction or under the supervision of the pilot or pilots, may try, or attempt to try, or make an attempt to try to comprehend or understand any or all, in whole or in part of the hereunder published Canadian Air Regulations (CAR), except as authorized by the Minister or an agent appointed by, and acting for, the Minister.

**1.000B** Any pilot, or group of associated pilots, on becoming aware of, or realizing, or detecting, or discovering, or finding that he, or she, or they, are or have been beginning to understand the CAR, must immediately, within three (3) days notify, in writing, the Minister.

**1.000C** On receipt of the above mentioned notice of impending comprehension, the Minister will immediately rewrite the CAR in such a manner as to eliminate any further comprehension hazards.

**1.000D** The Minister may, at his pleasure, require the offending pilot(s) to attend remedial instruction in CAR until such time that the pilot is too confused to be capable of understanding anything.

## Below the peaks

**Frank Pennauer**, York Soaring

During March, spring is still very slow in coming to Central Europe, so large numbers of sailplane pilots from there migrate south, mainly to the southern French Alps. There the weather is ideal at this time of the year to get a jump on the new season. Therefore, when I arrived in Gap/Tallard in the middle of March this year, there were over forty gliders with many different European registrations on the start line. I was told that on three other fields, all within a 40 kilometre radius, there were another one hundred. I certainly found this to be true flying here during the next week.

I had signed up for a five day course with the European Mountain Gliding Centre which is associated with the Aero-Club Alpin of Gap/Tallard. The course is run by Jacques Noël who, with his 6000 plus hours gliding experience (most of it in these Alps), is also the CFI of the Aero-Club Alpin. The school operates with two Janus two-seaters and has its own hangar and briefing room. The basic Mountain Flying Course runs for five days from Monday to Friday during March to October. It consists of theory instruction in the morning and flight instruction in the afternoon. There are two students per airplane who fly up to three hours each per day. The cost for the five day course, which includes 15 hours of flying, is FF5400 (about $1350) plus five aerotows averaging about FF200 ($50) each.

The school's main aim and philosophy is to train their students to cope with the difficult situation of 'surviving' in the mountains below the peaks by making use of the various forms of lift available at low level along slopes, ridges and sheer rock walls. It is the instructor's belief that any well-trained flatland glider pilot will have no problems flying above the mountain peaks as long as there is sufficient lift, but that the difficulties arise when he sinks below the peaks.

The area in which this training takes place is within a radius of 50 kilometres around the airport of Gap/Tallard in mountains of 2000+ metres, with ridges in narrow valleys which produce various types of lift: the gradient wind, the valley breezes which produce slope lift, and thermals which seldom stand alone but most of the time interact. The combination of these various forms of lift is known as thermodynamic lift.

The true valley breeze, the anabatic effect, clings in a narrow band, 50 to 80 metres (160-260 feet) wide, to the slopes which can be accentuated or destroyed by the upward/downward movement of air in thermals and interfered with by the gradient wind which can either combine with the valley wind or conflict with it. To make maximum use of the lift so created one has to fly in extremely close proximity to the slopes which are often sheer rock walls. At the same time one has to keep close watch and avoid the many other gliders using the same slope by adhering strictly to the ridge flying rules.

Other major factors in flying on these ridges is the need to fly accurately, to fly at a speed of not less than 100 km/h, but always at such speed that the glider is instantly responsive to all controls. Hence the speed will vary depending on the degree of turbulence and gustiness — this might mean flying at 130 km/h or more at times. As one will have no time to look at the instruments while flying in such close proximity to the rocks, one waggles the ailerons slightly in order to make sure there is instant response to turn if needed.

Jacques Noël

In order to stay within the narrow belt of updraft, it's necessary to fly as closely as possible to the ridge, but in no case closer than one feels comfortable. In the beginning, being unfamiliar with this type of flying and the ridge, one stays further out and gradually moves closer.

While beating along on a ridge, one constantly must watch for a thermal surge to gain height. As these thermal surges are very narrow, one must depend on one's bottom (variometer indication is too late) to immediately react by initiating a steep/tight 180 degree turn with slight reduction of speed while turning away from the ridge. One flattens the turn and increases speed again before approaching the ridge with a closing angle of not more than 45 degrees before straightening up for another beat or initiating another 180 degree turn to fly figure eights. These are required on narrow ridges, in bowls and in thermal surges which are in close proximity to each other.

At the same time, an "escape" option to get to the nearest landing field must always exist towards which one must proceed while it is no more than a 20:1 glide away, while still trying every likely ridge and thermal source on the way to gain height.

During the five days I was flying in Gap/Tallard, I worked twenty different ridges with a variety of topography, from gently sloping smooth slopes to ridges covered with trees to sheer rock walls to narrow short slopes to long rock falls with sheer rock walls above, flying often only metres away from the wall and metres above the lower slopes. Although flying in the mountains was hard work and kept the adrenaline flowing — together with the sheer beauty of the scenery, it was more exciting and better than any of my previous gliding experiences. I certainly shall return.

The area itself is beautiful — one can visit many picturesque mountain villages, enjoy local food and wine, go shopping in Gap or visit the many historical sites in the area. Many sports like swimming, horseback riding, golf, tennis, paragliding or hiking are available.

One can choose from many hotels in Gap or near the airport, with room prices ranging from FF180-400 for two. We stayed in an excellent hotel "Pre Vert" which is on the outskirts of Gap, a ten minute drive from the airport. It is a modern hotel with its restaurant serving excellent French cuisine for the half pension price (room, breakfast and dinner) for two of FF350 ($90).

Anyone interested should contact:

European Mountain Gliding Centre
Jacques Noël
165 rue Emile Boyoud
04600 St-Auban, France
tel (33) 92 64 28 63, fax (33) 92 64 07 12 ❖

# club news

## Champlain visits Montreal ACC

On two separate evenings last March, forty of the sixty-five members of AVVC had the privilege of visiting the Montreal Regional Air Traffic Control Center. It was the perfect opportunity to see and appreciate both the purpose of controlled airspace and the demanding work required of an Air Traffic Controller.

Marc Lussier gave us a clear, fascinating mini-seminar on their operations (he's a terrific communicator). It was received with thumbs-up all around. This visit provided an intimate insight into Air Traffic operations, and the enthusiasm of the participants suggest that we'll be repeating it in the future. Many thanks to Marc for setting aside these two evenings for our members and for his all-round support of our soaring community.

In other news, Kemp Ward was proclaimed a life member by the club administration committee for his enormous involvement over the years in soaring. During the month of July, he celebrated his 30th anniversary in soaring. In the future, he will only have to pay his SAC fees (unless SAC also follows our initiative). Thank you very much, Kemp.

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**Visite du centre terminal de Montréal**
Quarante de nos soixante cinq membres de l'AVV Champlain ont visité en deux soirées en mars le centre de contrôle régional de Montréal. Ce fut l'occasion rêvée pour nos pilotes d'apprivoiser et de comprendre la raison d'être de l'espace aérien contrôlé et le travail du contrôleur aérien. Le séminaire d'introduction sur les classes aériennes donné par Marc Lussier était clair et compréhensible. Marc est un excellent communicateur et vulgarisateur.

Nous avons été heureux de partager ses connaissances. Nous sommes privilégié d'avoir eu cette vision intime du centre de contrôle aérien. L'énorme popularité de cette intéressante visite nous pousse à répéter l'événement dans le futur. Un gros merci à Marc pour avoir donné deux soirées de son précieux temps et pour son dévouement envers la communauté du vol à voile.

**Membre honoraire**
Kemp Ward a été proclamé membre à vie de l'Association de vol à voile Champlain par le comité administratif pour son implication au fil des ans au monde du vol à voile. Il a fêté au moins de juillet dernier, ses 30 ans d'implication au vol à voile. Dorénavant, il n'aura qu'à payer sa cotisation à l'Association Canadienne de Vol à Voile (à moins que l'ACVV ne suive notre exemple).

Merci beaucoup Kemp.

**Sylvain Bourque**

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## *... benign spiral*

from page 13

cloud base, a task which took a couple of minutes with absolutely no visibility. The whole time I watched the airspeed and kept trying to slow the ship down with the trim, hoping I wouldn't overspeed and rip the wings off!

Once through the cloud, we found ourselves to be about 5-7 miles from where we expected to be (I expected to be straight downwind). Fortunately this wasn't too far from the airfield, about 5-8 miles away and at 6000 agl so there was no problem getting home. Luckily the wave was working weakly below the cloud, so we headed north looking for another *big* opening to climb up into.

Were there any other options? Spinning is one. It is often suggested for losing great amounts of height in a hurry without moving any great distance over the ground. The problem with spinning is that not all aircraft spin well or long enough in all situations (as any student knows from flying the 2-33). In many cases (and mine) the glider may be difficult to spin, and once spinning, may progress into a spiral dive. With no visibility that would be a disaster as there was no horizon to use to recover and I would have likely oversped and ripped the wings off in a very short time. The only other options are to add additional instruments like a turn and bank/artificial horizon so that you know when you are flying straight and level while IFR, or a GPS from which you might be able to fly straight enough to stay out of trouble.

The whole incident brings a couple of items to mind:

1 The importance of having contingency plans for all aspects of the flight that you might run into. Anything you can plan in advance (even if not needed) is less you have to do later in unexpected situations, ie. plan for not just what you are going to do if the rope breaks — things like expected wind direction and speed are important if you have to land out, and knowing what you are going to do if you lose sight of the ground.

2 The importance of knowing what the aircraft you are flying is capable of. In this case, for example, being aware that the Grob 103 will benign spiral.

It is impossible to prepare for everything, but with a little work you can prepare for most of them. Having a course of action planned can decrease your reaction time, reduce your stress level and workload considerably, and avoid scaring yourself too badly. ❖

# SAC news

## Principal founder of SAC dies at 93

Don MacClement, who convinced 'Chem' LeCheminant and James Simpson to join him in forming the Soaring Association of Canada 53 years ago, passed away on 4 July.

Don was interested in aviation since 1915 when at the age of ten he constructed a rudimentary hang glider using Popular Mechanics plans and flew it from the roof of the family farmhouse near Kingston — successfully — but to the horror of his parents.

Following his father's footsteps, he studied to become a biochemist at Queen's University. Showing great promise, he was sent on scholarships to Cambridge and Berlin to earn a PhD that would lead to agricultural research.

He was instrumental in starting the Cambridge University Gliding Club early in the thirties; flew gliders with a Hitler Youth group until asked to leave the country; returned to Germany as a tourist in the mid-thirties and was involved with Peter Riedel and Wolf Hirth in the first aerotow launch of a glider; joined the RAF at the war's beginning and was assigned to use the Cambridge University Gliding Club facilities to select and evaluate cadets for potential RAF pilot training; was transferred to the RCAF and sent to Ottawa to assist with organizing the Commonwealth Air Training Command; in 1943 arranged the shipment of Kirby Cadet gliders and winches from England to Carp, Ontario where the first training of Canadian Air Cadets was organized. (George Dunbar was trained to fly at that camp and told me that his first cross-country occurred when he concentrated on a thermal until the wind blew him just out of reach of the airport.) As the war was ending, Don co-authored the long-popular *From the Ground Up* flying manual.

Then Don, aided by Chem and James, pushed for another two years to have the federal government allow incorporation of the Soaring Association of Canada in 1945 — and we all still benefit.

Recommencing his professional career, Don became a member of the McMaster University Science Faculty. He flew with SOSA for many years until he moved to British Columbia. Flying continued to be a passion and he held an active licence until the age of eighty-two.

Don was an Honorary Life Member of SAC and was awarded the FAI Paul Tissandier Diploma on the fiftieth anniversary of SAC in 1995 in recognition of services rendered to aeronautics. He was admired as a gentleman throughout his life.

**Charles Yeates**

## *the $100 hit — part 2* from page 4

a medium for members across the country to discuss soaring issues, solicit opinions, etc. The SAC website also provides various forms, such as the badge claims form, the OO application form, etc. The *Badge and Record Flying* guide is now available for free by downloading from the website (this previously cost $10, including shipping). SAC has had a presence on the World Wide Web for many years and may have been the first Canadian aviation organization to have one*.

8 Other *benefits* The Association also provides advice and guidance on a wide range of issues including starting or operating a club, conducting safety audits and running a contest.

### Intangible benefits

These are more elusive and many members are not aware of them. This is partly because they are often focussed on the soaring community at large, including future generations of soaring pilots rather than individuals. Nevertheless they are among the most important benefits that the soaring community and individuals indirectly receive from SAC.

For a variety of reasons, primarily relating to public safety considerations, aviation is one of the more highly regulated forms of human activity. However, soaring in Canada is not regulated in a heavy-handed or intrusive way by the government when compared to most other forms of aviation. SAC has had a lot to do with this state of affairs. The Association has a long history (SAC started in 1945) of working with Transport Canada and other government departments and agencies to help ensure that legislation and regulations are not introduced that would be unnecessarily detrimental to the sport. Currently, SAC is represented on the Canadian Aviation Regulatory Advisory Council (CARAC) and relevant committees and working groups associated with it. CARAC is a private/public sector consultative body that proposes and advises on regulatory issues. Ignoring CARAC, or not participating in the process, is not an option if soaring is to be preserved.

Let me mention a few examples of what SAC has recently achieved in dealing with the regulatory authorities.

*Glider pilot medicals* Instructors aside, glider pilots only require a Class IV, self-declaration medical. SAC's Medical committee was instrumental in obtaining this and it has been successfully defended and maintained since (most recently in 1997). The self-declaration medical expedites students going solo, since there are not the same delays that one can experience with Class III or higher medicals. For those for whom a Class IV medical is adequate, there are savings of time and money.

*Radio licence fee* Aircraft radios and ground stations require a radio licence and there is an annual fee for this. The President of SAC recently wrote to the Minister of Industry and presented a convincing case for the elimination of this fee. It appears that this effort has been successful and the Department has signalled its intention to eliminate the fee next year.

*Licence requirements for motorglider pilots* Transport Canada has recently proposed that pilots wishing to fly a bi-place motorglider have a private pilot licence (power) rather than a glider pilot licence. SAC has taken the position that the requirements to fly mono- and bi-place motorgliders should not be different and that a logbook endorsement of a glider pilot licence should suffice. SAC currently is working to resolve the issue.

*Airspace* Airspace around major airports in Canada was expanded and the designation levels increased, effective October 1996, with potentially very detrimental effects on soaring. Largely as a result of SAC's efforts, the authorities have instituted a thorough review of this and a number of detailed local studies have been completed, or are underway. In the case of the Ottawa TCA, the controlled airspace was scaled back to less than 50 per cent of its October 1996 size.

*Revenue Canada* SAC was successful in obtaining status as a registered amateur sports organization. As a result the Association can issue tax receipts for members' dues. These reduce the cost of membership by approximately 50 per cent.

*Sporting committee* The work of the Sporting committee has been a key factor in encouraging the competitive side of our sport through such activities as setting contest rules and guidelines and making sure that they remain current, and by providing guidelines and recommendations for badge flying. Recently the committee has worked to make record flying more accessible to Canadian pilots through the development of the Club category of records. A member of this committee has made notable efforts in encouraging the World Class glider in Canada.

The intangible and diffuse nature of many of the benefits mean that the question, "What does SAC do for me?" is one that will be repeatedly asked and answered. For now, however, it seems fair to conclude that the benefits of SAC outstrip the costs by a wide margin. ❖

* Most members will not know that SAC had a website through McGill University a number of years ago. It wasn't generally advertised since so few members had Internet access at the time. It was set up as an experiment and a learning experience in case the Internet became more widely used. Some of the material from the original site is still used on the current SAC site.

 from page 5

If one wants to train pilots who will eventually own their own sailplane, probably fibreglass 40:1 or so, it would be wise to use a plane with similar characteristics. Do you honestly believe that someone can go from a 2-33 to a CS-77? I have a hard time swallowing the blanket statement that upgrading a fleet could be a disaster for the club, and that two-seat fibreglass planes are for egos only. Only a fool would not look into good financial planning and rush out and buy something the club couldn't afford, be it a towplane, a new single seater, or even the field itself.

What clubs need are leaders and members who can look ahead about 15 years to where they want to be. MSC got rid of their 2-33s, so did Winnipeg. The Blaniks and K-13s will get timed out eventually as well. And so will the control freaks who are ruining the sport by not listening to the club pilots, who want to rule down and not train up. It's much less work to teach in older planes, but really, what good are you doing by telling clubs not to improve their fleets? If that were the case then why don't we see two-place speed records being set in Blaniks?

I'm sure a string of similarly controversial letters will follow this one, but really, what good is it to tell people not to improve the quality of airplanes? Obviously then there's no interest in improving the quality of the club pilots either, and thus the sport is dead.

**Mike Morgulis**, SOSA

. . . . .

Mike makes some good points in his article, however "training up" or "ruling down" is really the same thing, just coming at the same desired result from different approaches. I favour training up rather than ruling down, but club procedures are necessary to ensure that safety items don't fall by the wayside, and as a means of teaching newcomers how things are done at specific clubs. The trick is to train newcomers to think for themselves with respect to the club procedures rather than have them blindly follow the "Rules".

The status of the aging Canadian training fleet and the moves being made by clubs to improve their fleets indicates that Canadian glider pilots are not willing to communally pay for better equipment. The fleet improvements by MSC, Winnipeg, SOSA, Gatineau etc. are basically replacement of old technology with slightly less old technology. This holds true of power flying clubs as well. There are very few power flying clubs that are flying new technology such as Katanas. Why? Because we can still learn the theory and practical aspects of flying in older technology equipment. The theory of flight hasn't changed.

The theory of fleet improvement is similar to that of owning a car. If it's running well, it still has value to the owner. With small repairs over time this car will continue to run, but the longer the owner waits, the more expensive the newer cars will become. If an owner keeps a car too long, it suddenly becomes worthless to sell and the new cars are now unaffordable.

The alternative is to buy a newer old/used one. With aircraft, and unlike the auto industry, you can buy a brand new copy of an older design, helping to extend the usable time for the aircraft. Most 15-20 year old gelcoated fibreglass club gliders require a $15-20,000 refinish job. This is still preferable from a financial standpoint, since new technology such as the Duo-Discus is just too expensive to purchase and maintain. However, are we just fooling ourselves — will the difference in the price of new and old become so great one day in the future that we won't be able to afford to replace our aging glider fleets? Look around your club, at both the club aircraft and the private aircraft. What is the average age from date of design and date of manufacture?

**Fred Hunkeler**, SOSA

. . . . .

While I do not agree with his "solution", I think that Len Gelfand has done a useful service by pointing out the equipment/resource conundrum faced by most clubs, large and small, in Canada (and elsewhere). The essential question to ask is, "What mix of sailplanes (and other equipment and facilities) will best serve the needs of the members and ensure the long term viability of the club?"

Success can have many yardsticks: students trained, badges won, contests hosted, barbeques held, intro flights done, etc. The fortunate who live near the larger centres can have a choice in fact: join a "training" club to learn to fly, and later move on to a "private owners home" for advanced soaring. The quality of the bar and social life is also a factor at some clubs. At Lasham in England, you can do all this and still remain on the same field, where, I think, six or seven clubs are located. However, most of us in Canada have to serve a broader spectrum to keep on going.

I agree with Len that owning big, expensive gliders that few can fly and which rarely pay their way from an accounting standpoint is not a good idea. However going too far the other way with "three older two-seaters" may not be much better; sure, there are more opportunities to fly, once the maintenance on three older aircraft is done (probably involving ten times the volunteer labour as required on a nice new fibreglass two-seater), once adequate hangar space is provided for three probably more delicate aircraft (which will cost more); once the club antes up for another towplane for the extra tows (a lot more costs there too); once another volunteer towpilot is found and trained (need more than one to fill the schedule actually), etc. Sorry, there's no free lunch in running a glider operation.

Is money the main factor? Yes and no; cheap flying is nice but not if it means lots more time at the club doing the odd jobs that come with low-end equipment. I also agree with Len that putting some dollars into a bigger and better mower (so that the grass gets cut quicker and easier) or hiring a few students to paint the hangar doors, muck out the outhouses, etc. might be money very well spent.

My personal perception is that most "committed" glider pilots are limited more by the personal recreation time available than by cash. Others can make their own assessment. Then again, is the club there to provide the current members with the kind and amount of flying they want, or is it there to provide a public service to give the general public exposure to gliding and an opportunity to go for a ride.

I do not suggest that there are easy answers to these questions or even consistent answers from club to club. What is clear is that you have to get it right to serve your own club's needs when making significant equipment and budget choices. Any debate that helps the right decision get made for your club's circumstances is useful.

**Jim Oke**, Winnipeg

. . . . .

I too was somewhat disturbed by the article by Mr. Gelfand. We are watching a steadily declining interest in soaring with experienced members dropping to the wayside and not being replaced by the young and keen pilots who will shape its future, but I do not believe that the cost necessarily is the barrier.

Surely, discouraging fleet upgrades will ensure that younger pilots will stay away. Leading edge technology in hang gliding and paragliding consistently draws the attention of young pilots. These rapidly evolving aircraft now approach the performance of a 2-33. No wonder that younger pilots are drawn towards them. It is human nature to be drawn to the best that we can offer. Just watch a group of today's pilots swarm around the new Ventus 2CM while being careful not to slip on the drool on the tarmac.

I think a more important route to change is to overhaul the instruction process that new pilots are offered. Our world has changed and has become increasingly fast paced and small. The time commitment in obtaining a licence, which presently can be two years (at least out west), is the biggest barrier to encouraging new pilots in this busy world. Aviation is without question an expensive pastime, but I would suggest that the barrier of *time* is much greater than that of expense. Anyone truly interested in learning to fly anything, in my opinion, would gladly suffer a hit in the pocketbook over the short term than have to

commit to two years of intermittent cheap flying just in order to get a licence. The carrot of being able to fly an aesthetic aircraft at the end of the process is a draw that shouldn't be underestimated.

Clubs, by virtue of their size and membership, provide the best venue for obtaining and supporting newer aircraft. Certainly, older ships offer the very best value in training and should not be eliminated from a fleet, but the lure of progress to better and sleeker aircraft is what will keep new pilots with us, assuming we can keep them interested throughout the training process.

**Mike Glatiotis**, Cu Nim

. . . . .

While I still believe that our "poor" training system contributes more than our old sailplane fleet to soaring decline in North America, I don't agree at all with the author of "The downside of upgrading".

> *"Let's imagine a club intending to spend $70,000 for a glass two-seater. Instead, it could buy three old ones and have lots of money left over for additional maintenance costs..."*

I would first ask Mr. Gelfand when was the last time he consulted the classifieds. Take the last ten issues of *free flight* and tell me how many flyable "less than $20,000" twin seat trainers you saw? A safe and ready-to-fly trainer for less than $20,000 doesn't exist any more. Well, there are still somewhat clean Blaniks for $15-20,000 on the market (if you are very lucky), but they have usually just a few hundred hours left. Is it a real bargain? I'm not sure.

The twin seater used market is almost empty, and don't waste your time trying to find "new" used sailplanes. I wouldn't be surprised to learn that in Canada more twin seaters are written off or simply put out of flying condition than new ones are bought. Maybe those who have access to SAC statistics can answer this; how many twin seaters are registered in Canadian clubs compared to the early eighties? Then, the next question to Mr. Gelfand; how can you have more trainers, more flights, more sailplane pilots if you only count on the nonexistent used market? Soaring cannot grow if the trainer fleet shrinks. So we have to buy new sailplanes to increase soaring training availability — it's a logical consequence.

Our club proved last year how easy it is to increase membership. This year, we had to shut our doors — too many new members. Growth must stay under control. Unfortunately, club effort can be cancelled by another club's attitudes. A 10% mean increase is an easy goal to reach. If all clubs reach it, soaring will have a better future. But big is not always the best. Larger clubs know it and don't want to participate in soaring growth. It's a shame to see that smaller clubs are doing five times more effort to promote soaring while larger clubs don't participate.

When a club reaches an ideal size it should then give help to younger and smaller clubs. Large, rich, and well established clubs that stop growing by design must help. One good way to do it is by buying new twin seaters so they can put their older ones on the used market and make possible the birth of a new club. In 1994, Le Club de Vol à Voile de Québec bought a new twin seater and sold the old one to a new club in British Columbia. In 1996 (or 95, I don't remember exactly), the Montreal Soaring Council bought two new trainers and sold two older ones to a smaller and not-so-rich club.

Congratulations to these two clubs: they contributed to soaring. But I know there are large, rich and well established clubs that stick to their old trainers while they have enough money to buy new ones. Seen from the broad soaring community viewpoint, it's a selfish attitude. There are many small clubs in Canada that can only afford a used Blaník, ASK-13, or even a Schweizer. It's more difficult for those small clubs to buy those old sailplanes than for a rich club to buy a more modern ASK-21. But instead of buying new trainers, those old, rich, large, and well-established clubs stick to their old trainers, helping to create an inflationist trend on the used market. Once again, I consider it a shame.

Finally, in a country where our standard of living can be compared to western Europe or USA, in a country where there's a lot of luxury cars on the road, two or three cars around a single house, why is an ASK-21 considered a luxury fancy sailplane when it's a basic trainer in many clubs in Europe? Is our sport sick?

**Jean Richard**, Champlain

# Coming Events

**Ontario & Québec combined Provincials**
4-7 Sept, AVV Champlain, Saint Dominique, QC.

## Directors & Officers

**President & QUEBEC**
Pierre Pepin (1997)
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**Flt Training & Safety**
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Marc Lussier
Terry Southwood

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**Trophy Claims**
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*mprsoar@agt.net*

# FAI badges

**Walter Weir**

3 Sumac Court Burketon, RR2, Blackstock, ON L0B 1B0
(905) 263-4374 email *waltweir@inforamp.net*

The following badge legs were recorded in the Canadian Soaring Register during the period 25 April to 25 June.

**SILVER ALTITUDE (1000 m gain)**

| | | | | |
|---|---|---|---|---|
| Robert Lohmaier | Prince Albert | 1220 m | K7 | Birch Hills, SK |
| Don Klassen | Prince Albert | 1097 m | K7 | Birch Hills, SK |
| Lorraine Gower | SOSA | 1036 m | 1-26 | Rockton, ON |

**SILVER DURATION (5 hour flight)**

| | | | | |
|---|---|---|---|---|
| Lorraine Gower | SOSA | 5:13 h | 1-26 | Rockton, ON |

**C BADGE (1 hour flight)**

| | | | | | |
|---|---|---|---|---|---|
| 2580 | Robert Lohmaier | Prince Albert | 1:07 h | K7 | Birch Hills, SK |
| 2581 | Don Klassen | Prince Albert | 1:19 h | K7 | Birch Hills, SK |
| 2582 | Dennis Mountford | Prin\ce Albert | 1:39 h | K7 | Birch Hills, SK |
| 2583 | Roger Harris | Guelph | 1:10 h | 2-33 | Elmira, ON |
| 2584 | Ken Melax | Cu Nim | 4:07 h | Blanik L-13 | Black Diamond, AB |

## THIS TIME I *REALLY* SCREWED UP!

This is a hard story to tell. I broke my glider 2W in a landout at Brandon and have nobody to blame but me.

It was the ninth day of the ten day national contest at Brandon – 3:30 pm – and the task committee had cancelled the day for the 15m and Standard classes because conditions were very weak and it was too late to launch and start a successful task. The forecast was for rain on the tenth day and I still had a tow ticket left so I decided to go flying for fun. Some fun!

Ulli had launched before me and we got together near Rapid City, a turnpoint a few kilometres north of Brandon. Conditions looked not too bad and we decided to go toward Minnedosa, a bit further north. Ulli quickly got ahead of me and I was pushing to catch up but not having much luck. The cloudbase was barely 3000 agl at Brandon and the ground rose as we went north, so I didn't have much to play with. I told Ulli I didn't like this and said I was turning back. He said he had almost landed at Minnedosa but had made a low save. I still had a couple of clouds to try that were within reach but quickly found out they were not working. I needed about 500 feet to be high enough to get home and started back hoping I would find something and refusing to believe I was going to land out on a local "fun" flight. We had had three contest days and I had landed out on all three. Not again!

I got lower and lower — found a couple of bumps and tried 360s but only made things worse. There was no shortage of fields but they all seemed to have crops of unknown height. When I was still hoping to make it to Brandon I saw a glider in a landable field and stupidly passed it by. I had been told that yellow canola and blue flax were tough and dangerous. In the distance I could see a straw-coloured field I hoped would turn out to be cut. Still heading downwind, south along the highway, still hoping for the miracle save, I arrived at the straw-coloured field with only enough height for a 180 into wind. I could see the high crop blowing in the wind. I had made my final mistake of the flight — no options left...

You stop quickly when you hit chest high winter wheat — so quickly that the trailing edge of my wings suffered from the compression caused by them stopping and the fuselage wanting to keep going. At least I didn't break the tail off. But I still haven't recovered mentally. STUPID!! ❖

*Thanks to Walter for the confession. I particularly wanted him to write this for free flight for two reasons that every pilot should think hard about when they are flying:*

1 *NO ONE is such a great or experienced pilot that they cannot make mistakes which lead to an accident – many events back that up!*

2 *Look how easy it was on a short cross-country flight to get locked into a mindset that made the selection of options a rapidly diminishing prospect.*

### SAC SUPPLIES FOR CERTIFICATES AND BADGES

| | | | |
|---|---|---|---|
| 1 | FAI 'A' badge, silver plate pin | | $ 6.00 |
| 2 | FAI 'B' badge, silver plate pin | | $ 6.00 |
| 3 | SAC BRONZE badge pin *(available from your club)* | (12 for $55) | $ 6.00 |
| 4 | FAI 'C' badge, cloth, 3" dia. | | $ 6.00 |
| 5 | FAI SILVER badge, cloth 3" dia. | | $12.00 |
| 6 | FAI GOLD badge, cloth 3" dia. | | $12.00 |
| 7 | FAI 'C' badge, silver plate pin | | $ 5.00 |
| 8 | FAI SILVER badge, pin | | $45.00 |
| 9 | FAI GOLD badge, gold plate pin | | $45.00 |
| | *Items 7–12 ordered through FAI awards chairman* | | |
| | *Items 10, 11 not stocked – external purchase approval given* | | |
| 10 | FAI GOLD badge 10k or 14k pin | | |
| 11 | FAI DIAMOND badge, 10k or 14k pin and diamonds | | |
| 12 | FAI Gliding Certificate (personal record of badge achievements) | | $10.00 |
| | **Processing fee** for each FAI application form submitted | | **$15.00** |
| 13 | FAI badge application *(download from SAC website forms page)* | | n/c |
| 14 | Official Observer application *(download from SAC website forms page)* | | n/c |
| 15 | SAC Flight Trophies application *(download from SAC website forms page)* | | n/c |
| 16 | FAI Records application *(download from SAC website forms page)* | | n/c |
| 17 | Flight Declaration *(download from SAC website forms page)* | | n/c |
| 18 | **Badge & Record Flying**, ed. 7 *(download from SAC website forms page)* | | n/c |

Please enclose payment with order; price includes postage. GST not required. Ontario residents, add 8% sales tax. Items 1–6 and 13–18 available from SAC office. Check with your club first if you are looking for forms.

### ARTICLES ACVV POUR CERTIFICATS ET INSIGNES

| | |
|---|---|
| Insigne FAI 'A', plaqué argent | |
| Insigne FAI 'B', plaqué argent | |
| Insigne ACVV BRONZE *(disponible au club)* | |
| Insigne FAI 'C', écusson en tissu, 3" dia. | |
| Insigne FAI ARGENT, écusson en tissu, 3" dia. | |
| Insigne FAI OR, écusson en tissu, 3" dia. | |
| Insigne FAI 'C', plaqué argent | |
| Insigne FAI ARGENT | |
| Insigne FAI OR, plaqué or | |
| *Les articles 7–12 sont disponibles au président des prix de la FAI* | |
| *Les articles 10, 11 ne sont pas en stock – permis d'achat externe* | |
| Insigne FAI OR, 10k ou 14k | |
| Insigne FAI DIAMAND, 10k ou 14k et diamands | |
| Certificat FAI de vol à voile (receuil des insignes) | |
| **Frais de services** pour chaque formulaire de demande soumis | |
| Formulaire de demande pour insignes | |
| Formulaire de demande pour observateur officiel | |
| Formulaire de demande pour trophées de vol de l'ACCV | |
| Formulaire de demande pour records FAI | |
| Formulaire de déclaration de vol par feuille | |
| **Vol pour certificats et insignes, éd.7** (anglais) | |

Votre paiement dévrait accompagner la commande. La livraison est incluse dans le prix. TPS n'est pas requise. Les résidents de l'Ontario sont priés d'ajouter la taxe de 8%. Les articles 1–6 et 13-18 sont disponibles au bureau de l'ACVV.

# Trading Post

Personal ads are a free service to SAC members (please give me the name of your club). $10 per insertion for nonmembers. **Send ad to editor**, not the national office, Box 1916, Claresholm, AB T0L 0T0
tel/fax (403) 625-4563, *free-flt@agt.net*

Ad will run 3 times unless you renew. Please tell me if your item has been sold sooner. Maximum ad length is 6 lines and subject to some editing as necessary.

## single seat

**L-Spatz,** CF-UJZ, 1966, recent fabric and overhaul, basic instruments, radio, Varicalc, open trailer. $6000. Winnipeg Gliding Club (204) 837-8128 or *info@wgc.mb.ca*

**1-26A**, # 23, 1050h, beautiful condition, new fabric on wings, tail and fuselage recently recovered, total refinish in 1996. Excellent enclosed trailer. Asking $9500. Would consider delivering for expenses. Harold Eley, email: *eeley@cableregina.com* (306) 584-5712, or Wilbur Eley, (306) 255-2859.

**Ka6CR**, CG-CJB, #6608, 1967, 1200+h, annualled. In good to very good condition, new instruments, factory trailer. Slimpack chute. Michael Steckner, (440) 473-9365, *mks@gwis.com*

**Pic-3** Finnish glider (Ka6 equivalent), plywood construction, trailer, radio, O2, chute, all logbooks. $3500. Klaus Brixa (519) 948-2384 eves.

**Skylark 4**, fully equipped with trailer, hangared at GGC. Andrew Robinson (613) 226-7616 (H), (613) 723-2299 (W), (613) 237-4152 (F), *andrewr@hookup.net*

**Dart 17/R**, C-FOAK, easy to rig/derig, basic instruments, trailer (needs repairs), chute, O2. $9000 minus AD. Call Sylvain "Bingo" Larue at (902) 765-6865 or *bingo@cancom.net*

**Jantar Std 2**, C-GGEA, 747 h, excellent condition. Aluminum encl trailer, Rico, g-meter, EdoAir radio and chute. Asking $26,500. Réjean Dallaire, (514) 449-6333 (W), (514) 635-3470 (H).

**td Cirrus**, CF–DFN, "Jolly Miller", 1650h, tinted canopy, bombproof trailer, excl flying cond, Ball elec vario & audio, PZL mech vario, Genave 320 radio, Plantronics mike, O2, T&B, chute. $26,000. Call Mike Glatiotis (403) 282-6121, *mglatiot@cadvision.com*

**RS-15**, a fun aircraft with impressive performance, 2-5 hrs common. Nice condition with Imron finish. Cambridge vario, Mk 4 director, O2, radio, Schreder trailer. $14,500. Bryce Stout (905) 822-1814 ph/fax.

**DG600**, 1050h, 17m tips and 15m winglets. Becker radio, Westerboer computer, Bohli compass, wing wheel, covers, Cobra trailer. US$52,000. André Pepin, (514) 923-3631 or *prpepin@videotron.ca*

**SDG202/17C**, 1981 carbon model, 2700h (ship has been meticulously cared for and is in excellent cond). Excellent gel coat, Becker radio/mic, ILEC computer/vario, GPS, Winter mech back-up vario, Hamilton compass, O2, water. $50,000. Based in Ephrata, WA. Harry Peters (604) 856-5456, *petersh@uniserve.com*

**SZD-5J-1**, C–GBYT, "Junior" new club single, instruments to suit. Trailer available. Ed Hollestelle (519) 461-1464 ph/fx, *solairecanada@compuserve.com*

**PIK20Bc**, C–GXWD, carbon fibre, 820h, very good condition, new paint, Ball 400 c/w netto & cruise, Edoaire 720 radio, chute, O2, gear warning. Call Lee Coates at (403) 242-3056 or Denis Bergeron at (403) 526-4560.





## two seat

**Lark IS28B2**, C-GVLI, 1500 h, basic instruments, Cambridge vario & repeater, Alpha 100 radio, g-meters, professionally built open trailer. Priced to move at $17,000. Winnipeg Gliding Club (204) 837-8128 or *info@wgc.mb.ca*

## miscellaneous

**Two winches**, single drum with 3500 ft of cable, V-8 powered, very low time on both engines, on single axle frames with trailer hitches, excellent economical launch vehicles. Eric Durance (519) 969-7889, Kurt Moser (eves) (519) 472-8876.

**Barograph**, Replogle – $350, Winter (smoke) – $350
**GPS**, Garmin 55 with stick/yoke mount – $400
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**Speed ring** for Ventus, km/h, fits Winter vario, $40
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**ILEC SB-7** variometer, 2 **SB-7** varios, good condition, working order, with manuals, no flask needed, asking $US500 each. One 57mm **averager readout for SB-7**, $US150. Kevin Clifton, (306) 978-1832, e-mail *kev@envistatech.com*

**Parachute**, Security 150. Asking $300. Call Kurt Moser, (519) 472-8876

**1-man rigger**, a brand-new never used "Wing Thing". Selling as I never had the need for it that I originally anticipated. $295. Paul Nelson, (519) 821-0153.

## magazines

**SOARING** — the monthly journal of the Soaring Society of America. Subscriptions US$43 second class. Credit cards accepted. Box E, Hobbs, NM 88241-7504. e-mail: *74521.116@compuserve.com* (505) 392-1177 fax (505) 392-8154.

**SAILPLANE & GLIDING** — the only authoritative British magazine devoted entirely to gliding. Bimonthly. £17.50 per year. BGA, Kimberley House, Vaughan Way, Leicester, LE1 4SG, UK. e-mail: *Bgahq@aol.com* fax 0116 2515939,

**AUSTRALIAN GLIDING** — bimonthly journal of the Gliding Federation of Australia. $A40.50 surface mail – airmail $A55. Payable on an Australian bank, Bankcard, Visa, Mastercard. Box 1650, GPO, Adelaide, South Australia 5001. fax (03) 9379-5519. *AdminOfficer@gfa.org.au*

## suppliers

**Sunaero Aviation** Glider repairs in fibreglass, wood, & metal. Jerry Vesely, Box 1928, Claresholm, AB T0L 0T0 (403) 625-3155 (B), fax (403) 625-2281.

**XU Aviation** Chris Eaves. Glider repair in all materials. (519) 452-7999, fax (519) 452-0075, e-mail *xu-aviation@sympatico.ca*

**Barograph calibration**, most makes and models. Walter Chmela (416) 223-6487.

**VariCalc**, versatile pressure transducer and microprocessor based vario and final glide calculator, Canadian designed and produced. Skytronics (613) 820-3751 or (613) 596-1024.

**LD-200** variometer, hi-performance pressure transducer based varios with audio. No bottle required. Peter Masak, 47 Sheffield Lane, West Chester, PA 19380 (610)-738-9792 *masak@ix.netcom.com*

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