

free flight • vol libre



Priorities



The best thing since sliced bread ...

The On Line Contest has again grown this year in its acceptance and use. A look through the flights recorded on the OLC this year reveals that the 149 Canadian pilots posting their results have discovered a new reason for joy in their flying: sharing adventures. Never before has story-telling reached so far, so fast. Within minutes of landing we are now telling pilots all over the world the story of our personal battles with the elements and waving a “red flag” to other clubs by adding to the cumulative efforts of our own.

It only takes a quick look through the OLC lists to be impressed with the achievements of Canadian pilots. One, Vaughan Allan, has six flights with an average exceeding 816 kilometres! Hans Binder has 48 flights with an average of over 506 kilometres. Young pilots are taking up the challenge and posting their latest accomplishments. Never mind that the flights are “only” 24 kilometres — they’re flying cross-country and proud of it!

SAC provides the OLC with financial support so that Canadian pilots will be encouraged to participate by not having to pay the registration fee. This expenditure will be reviewed annually in March with the expectation that it will be continued. We encourage you to use and enjoy the OLC, it’s the best thing since sliced bread!

There’s going to be a meeting here ...

Calgary will be the site of our SAC Annual General Meeting. It will be held on Saturday, 20 March 2004. Details of the venue, activities and speakers will be provided in the coming weeks. Plan to come, participate in the AGM, and take in some spring skiing. We look forward to seeing you in Calgary!

Did I really hear you say ...

By the time you receive this our new spam-free Roundtable will be launched. A note of encouragement to all — use it often. There are few aspects of the web that have a greater potential for positive effect in the soaring community than the ability to question and debate issues with virtually every pilot in Canada. As is often the case, there is a dark side to this opportunity. The medium fosters quick responses which come even faster when we are upset with a posting. Your assistance is needed to “protect” the Roundtable so that everyone feels comfortable using it. Sometimes that may mean forgoing the urge to straighten out an individual or make sarcastic remarks after reading a posting we disagree with. So to those that have given up on the Roundtable — come on back in — we really do hope to hear what you have to say.

Phil Stade, SAC president

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the key to future club survival

4 keeping members, not recruiting them ♦ *Doug Scott*

flying the US 15m Nationals

6 good results over the desert ♦ *Peter Masak*

flying motorgliders

10 still a work in progress ♦ *Réal Le Gouëff*

a visit to Pemberton

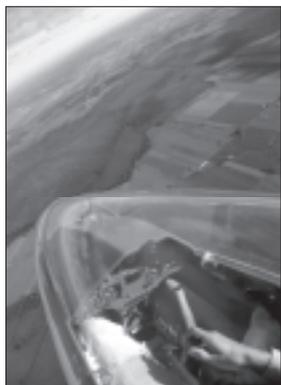
15 experiences of an Ontario pilot ♦ *David Donaldson*

Marc and Scott at Booker

16 flight at big UK soaring site ♦ *Marc Arsenault*

a volunteer in Lezno

17 helping out at the World contest ♦ *Art Grant*



Cover

Réal flying at 3000 feet in his Turbo Discus, about fifteen kilometres southwest of Hawkesbury facing south toward the Alfred Bog, a frequently-used landmark of the area.

photo: Réal Le Gouëff

DEPARTMENTS

- 5 **Letters, etc** — raptor rules of the road, first XC in mountains?
- 18 **Club news** — Québec provincial competition, club cross-country, new club management software
- 22 **FAI records & FAI badges** — new records and badges/badge legs approved

e-mail change
"free flight" and the editor
is now
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The key to future club survival

Doug Scott, Ontario Zone Director

THE SAC AGM AND BOARD MEETING ON MARCH 2003 included discussions about investigating ways to increase membership in the areas of youth and general membership. Suggestions included subsidizing fees and advertising. To refine workable mandates from these very broad goals, and benefit from what had been done elsewhere, the Board and Executive Director investigated various ways of dealing with these issues and sought information from clubs, organizations, and individuals in Canada and abroad. It evolved that the preferred plan was to establish three committees, Youth, General, and Marketing/Advertising, while anticipating some overlap and cooperation between them. See the Roundtable for contact information. This summary is distilled from input received during our research and is meant to inform Canadian glider pilots and provoke thoughtful discussion and input. Thanks to those who have contributed and to those working on the committees.

John Roake of New Zealand has been studying membership issues for the International Gliding Commission. He wrote us, "The problem is not just yours, ours, or the BGA's. At the same time is not just Gliding's either. Hundreds of sporting disciplines are having exactly the same problem. I wish there was an easy fix!"

Increased membership is the key to future survival. SAC wishes to encourage more junior members, indeed members of any age. How can this be most effectively achieved? Eliminating the SAC fee would not have a significant impact on the cost of a junior's flying, nor is there evidence to suggest that the minor reduction in flying costs would have a significant impact on the number of junior members. If the issue is one of financial hardship, why just juniors? Why not retired persons and those on fixed incomes? How far are other SAC members willing to go to subsidize the flying experience of others? There are individuals in all membership categories who cannot afford gliding. Where financial hardship is an issue, individual clubs can make arrangements with those affected, find a way that some of the costs could be worked off, or provide financing. The appropriate way to do this is on an individual basis at the club level, not by changing SAC dues for an entire category. It is also agreed there is a long payback period while waiting for former junior members, who generally leave after a very few years, to return to gliding in middle age. However, there is a feeling that promoting the sport to youth may be beneficial, hence a Youth Issues committee has been established in addition to a General Membership committee.

In anticipation of the similar needs of these two committees, a Marketing and Advertising committee has been established to liaise with them. Any planned expenses need to be justified to each SAC member and should be balanced with expected benefits that are acceptable to the entire country. The Marketing and Advertising committee will explore the possibility of regional clubs getting together to finance advertising paid for by those clubs who expect to benefit. When raising public awareness, we may want to differentiate between attracting prospective long-term members and simply getting thrill-seekers for guest flights. Before any marketing can take place (and hope to be effective) clubs must take stock, study their recent past very carefully, and *determine what they are selling* — training, cross-country, camping, family atmosphere, etc. There is no point in spending money to attract potential members whom you cannot satisfy.

We have requested that each club capture and keep membership information — success stories, statistics about how new members get interested in the sport, how they chose that club, why members leave, etc. Two large clubs each currently take in about 60–70 new members each year; most of these are students. Both clubs seem to lose a number of members each year equal to the influx. If they were able to solo and licence more students, would this be an effective way of attracting and keeping new members, or is it a colossal waste of resources? Do the student line-ups prevent licensed members from flying? If a profit can be made on the student flights, is this a good source of revenue? It is probably different at each club, given their differing resources. ➔ p21



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 Canadian team pilots for 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). All material is subject to editing to the space requirements and the quality standards of the magazine.

Images may be sent as photo prints or as hi-resolution greyscale/colour .jpg or .tif files. Prints returned on request.

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 Zone Director.

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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 Canada au sein de la Fédération Aéronautique Internationale (FAI), laquelle est responsable des sports aériens à l'échelle mondiale et formée des aéroclubs nationaux. L'ACC a confié à l'ACVV la supervision des activités véliplanes aux normes de la FAI, telles les tentatives de record, la sanction des compétitions, la délivrance des insignes, et la sélection des membres de l'équipe nationale aux compétitions mondiales.

vol libre est le journal officiel de l'ACVV.

Les articles publiés dans *vol libre* proviennent d'individus ou de groupes de véliplanes 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, des fichiers .jpg ou .tif haute définition et niveaux de gris peuvent servir d'illustrations. Les photos vous seront retournées sur demande.

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.

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 à la gauche. 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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Raptor rules of the road

Reading Reál LeGouëff's experiences at Ridge Soaring (ff 4/03) brought back memories of an incident I had there in May of 1987. I was on my Diamond distance run which coincidentally was also my first low level ridge cross country (after check-out). As I was traveling south at a good clip of about 110 mi/h, almost level with the ridge, glancing apprehensively up at the passing radio masts, I suddenly became aware of a rapidly growing flying object ahead. I could see it was a large bird, a bit higher in altitude, motionless in ridge lift, apparently totally unaware of my approaching glider. It was also traveling south (in the spring?) but, of course, only about half my speed. If I maintained my course, the glider would pass directly under the bird, well clear of it. I could almost visualize its surprise and chuckled at the thought.

Fortunately, I remembered an item which Tom Knauff had mentioned during our check flight. His experience showed that birds, when surprised in flight, invariably dive for the protection of trees and therefore it is absolutely essential to pass over them and never below. So, heeding Tom's advice, I eased back on the stick and the PIK-20 zoomed up. Sure enough, just before reaching the raptor, the bird peeled off and dove for the ground. It would almost certainly have resulted in a near miss, if not a collision. Good advice, Tom.

Over the years, I have learned to pay closer attention to the behaviour of birds. There was an encounter with two turkey vultures at about a thousand feet. Again, both birds dove down a short distance when I surprised them. In a thermal, soaring birds are quite happy to circle with gliders, but if there is an encounter, head-on or overtaking, they choose to dive while human pilots prefer positive "g" by pulling up.

One cannot assume that the bird will always give way to a bigger bird or glider. A few years ago, while flying under a cloud street late in the fall, I crossed paths with a flock of Canada geese heading south. I carefully turned to follow them and despite using flaps to slow down, started to catch up. The flock would not deviate even when I almost joined the end of the V. Reminiscent of a Disney cartoon, the last bird kept turning its head and looking back but did not abandon its position.

During the spring nesting season many birds become very territorial and do not hesitate to attack much bigger birds who might venture near their nest. I have seen a single crow attack a formation of pelicans (in Florida) who were slope soaring along "its" trees. It was the formation of the much bigger pelicans who

took evasive action. Thus birds expect any big bird, including a glider, to take evasive action when they intrude in its nesting territory.

I remember reading stories from the UK where slope soaring gliders were attacked by birds. This is particularly true of the old low wingloading types, flying at a much lower speed. (I used to soar the Mü-13, CF-ZPQ, at 28 mi/h). There have been more recent attacks by birds on gliders on final approach since it is here that the "big bird" appears to intrude into their nesting territory. Fortunately, the higher speeds of modern gliders tend to minimize such attacks to a feeble attempt of a missed intercept.

With these thoughts in mind, it's perhaps not a bad idea to observe a few simple rules of the road to avoid suddenly finding an unwanted bird in your cockpit.

Hillar Kurlents, MSC

First XC in mountains?

Karin Michel, Cu Nim's CFI, in part of the lead editorial of the previous (5/03) issue of *free flight*, counsels new pilots against making their first cross-country flight at Invermere. Why?

editor's note: Karin intended to speak generally of any mountain versus prairie locale ...

A number of elements go together to make a safe environment for students to have a safe first cross-country flight. Firstly, reliable and easy-to-find lift, so students are not forced to deal with an outlanding early in their career. Next, an assortment of safe landing options. How does Invermere fare on these tests?

Since there is one main range of peaks to follow in the Columbia River valley, it's fairly obvious where the lift is found, even for a new pilot. Fly to the next peak, get under the cloud that the updrafts are generating, circle up to cloud, and repeat ad nauseum. The closer you arrive to the peak top, the easier it is to locate the lift.

On the prairies, however, the connection is more tenuous between the generators of lift and the resulting clouds. Throw in a few wind shifts with different altitudes, and it can become a guessing game trying to find lift. Sure, it may be no problem for the experts, but is harder for the new XC pilot. One wrong guess, and you may be on the ground.

As for landing options, in the Columbia valley you have a series of airfields spread out at convenient intervals. For the learning XC pilot, a good task is to fly from Invermere → p20

Flying the US 15m Nationals

Peter Masak

HOBBS, NEW MEXICO was the site of the 2003 US 15m Nationals. It was the host of the World championship in 1983 and of numerous national contests. The site is in the midst of a true desert and as you can imagine, it's hot, very hot. As the weeks neared before we departed Pennsylvania for New Mexico, I couldn't help but noticing that this part of the country kept posting record high temperatures.

It took some cajolling to convince my wife to drag herself and our three kids to hot and dusty New Mexico so I could go soaring. We really enjoyed visiting Hawkesbury last year (not for the flying, but for the club facilities, which were great for the kids). On checking around with some Hobbs locals, we found out that there was a boys-and-girls club that could entertain our 7 and 8 year olds during the heat of the day. This sealed the deal with my family, and we departed in mid-July for Hobbs. I heard several pilots mention that their families came to these contests on the condition that "this doesn't count as vacation".

Wilf Krueger and Willem Langelaan from Canada were also on site as we pulled into Hobbs. Wilf had been making a grand tour of Canada and the USA with his wife Helga, their grandson Joel, and their ASW-27. Willem had driven down from Toronto, and was using the contest to prime up for the Canadian Nationals at Pendleton.

At the contest were a good mix of seasoned veterans and a few new junior pilots. Almost all the sailplanes were either ASW-27's, Ventus 2's, and a handful of Discus 2's and older Ventus'. The forty-one pilots in this contest were fairly serious about competition. There were few pilots who came only for the pleasure of soaring at a world class site.

Most of the tasks flown in the US are now assigned area tasks. The idea is that a baseline course is set, with a large cylinder (say with a 20 mile radius) around each turnpoint. You can make your turn at any point within the cylinder, and the computer will determine the maximum distance flown individually for each pilot. There are new strategies in this task; for example, you always want to go slightly farther into the turn cylinder than other pilots when rounding turnpoints so that you can get behind them. These are very different tasks than the contest tasks that have been flown in Canada, and they take a little practice getting used to.

Day 1: Hobbs / Crossroads / Andrews / Hobbs

The day started like most, a huge furball of gliders jockeying for position before the start, all trying to get maximum height, and none wanting to be the first to start. I started with what seemed like the second wave of pilots. Conditions were superb to the north once we got out of the start gate area; 6-7 knot thermals were the norm. The flight was relatively easy on the first leg as I had started far enough back to be able to bounce other

pilots' thermals. After rounding the first turn, I worked my way into a slight lead with John Seaborn. The conditions coming south were dry, and we lost our cu markers. This made it tough as we forged ahead into the bland looking desert terrain. Once in the lead, I was only able to land a 4 knotter, and pretty soon the fleet of gliders passed me by near the second turn. I pushed hard, and got down to about 2000 feet above ground, without easily hooking a good one to get me back in the race. After doddling a little, I eventually got back up high but felt frustrated with my decision making. I finally got some great lift near the last turn, but made an additional mistake on the final glide when I under-estimated the altitude needed for final glide and had to take some turns in a 2 knotter four miles from home, with only marginal altitude to make the field. This put me in 10th position for my first day's effort. Rick Walters won the day convincingly in his ASW-27.

I spent the night tossing and turning, rethinking my mistakes and vowing to act more intelligently the next day.

Day 2: Hobbs / Post / Seminole / Hobbs

We found ourselves in the face of unusual conditions today. The remnants of Hurricane Claudette were tracking along an east to west path along the Rio Grande valley to the south. The northern fringes of this tropical storm were pumping moisture into this area, and producing lots of cloud cover, with high surface winds. We launched with 25 knot winds from the east. As the day progressed, the cloud cover thinned, producing beautiful



Peter & kids

cumulus with low bases, fortunately with nice flat bottoms, but the wind didn't let off. Prior to the start, many of us contacted thermal wave over the airport, and experienced the beauty and joy of soaring above the clouds, while lounging around and waiting for the day to start.

When the gate opened, I was high and very surprised that no one seemed interested in starting. I worried that the forecast thunderstorms to the south might cut us off later, and decided to go through the gate immediately. Alfonso Jurado and I started together with my glider a bit higher. We were the first to start. I later received a penalty for not having been below 6000 feet for two minutes before the start — a rule that I hadn't considered. The conditions on course were superb, in spite of the howling wind that we were driving into. It was obvious that unless you could dolphin soar most of the time, you couldn't make much progress into the wind. I got ahead of Alfonso, but later made a mistake and found myself down low and looking for a possible landing site. Fortunately a 3–4 knot thermal presented itself and I climbed up and then proceeded somewhat more cautiously. To my surprise, Alfonso appeared beside me out of nowhere, and we flew together to the first turn.

As we turned at the first turnpoint and headed southwest to Seminole, gliders seemed to appear in bunches going at breakneck speed for the turn. It's really a sight to see these racing gliders porpoising along between 60 and 120 mi/h under streets. When you pass by someone else going the opposite way, the convergence rate is phenomenal, and you really need to keep your eyes wide open. At the same time, I think that it's one of the most beautiful sights that one can experience.

Keeping in mind that there were a big pack of gliders behind me, I kept driving alone to the second turn, and with this overt aggressiveness got a little low. I took a weaker than average thermal and climbed to finish gate altitude. Some gliders passed me on final glide overhead. The entire experience got me a 15th for the day, and put me in 14th overall. Timo Kiiha, a US resident from Finland, won the day with Rick Walters only a hair behind and still in first place overall. Again I spent much of the night not sleeping well, mostly reliving my mistakes.

Day 3: Hobbs / Muleshoe / Brownfield / Hobbs

The kids found themselves a scorpion and had great fun proudly showing their catch to others. They were starting to get into a routine, and looked forward to coming out to the runway late in the afternoon to watch the finishes, and ride with Charlie Spratt on his golf cart.

Okay, I thought to myself, "this is the day that it finally comes together. I'm going to get a good start, fly aggressively but not overly so, and everything will sort itself out."

What a disaster this day turned out to be at the start. Cloudbases were very low before the start — about 3500 agl, and it seemed best to wait for the temperature to come up. I had no problem staying near cloudbase, until I tried to position myself in the pre-start gaggle. I kept getting frustrated dodging forty other gliders at cloudbase, and went off on my own for a while.

I started alone, despite intentions not to do so, and with the low start gate altitude, found myself in the unbeliev-

able situation of almost landing out eight miles from the gate. What a fool, I thought to myself. After hooking a low thermal, I finally got up to cloudbase at 4000 feet, and resolved to be more careful and less aggressive. The conditions improved somewhat on course. I saw one other glider, who I met up with on the way, Tom Kelly in his ASW-27. He had just won the Regionals at Hobbs the week before. We drove forward together. I stopped in a 5 knot thermal, and he continued on. That was the last I saw of him. It proved to me that this was not a day to get low. Upon rounding the first turn, I drove into the wind, and porpoised as much as possible. There were lift streets marked by a few clouds. I did well, and passed a few sailplanes on this leg.

Upon rounding the last turn, we came into good conditions well marked with flat bottomed cu, and I drove for home, with another finish in the teens (13th).

Rick Walters blistered the course with an 80 mi/h day, and his lone wolf strategy of being first on course paid off well for him. I managed about 72 mi/h. Walters was starting to look invincible.

Day 4: Hobbs / Muleshoe / Crossroads / Andrews / Hobbs

A blue day. With the intense heat on the ground, and the lack of cloud cover, we all expected this day to be tough in the cockpit. The gagging before the start was intense. As the thermals topped out, the gaggle would spread out to where pilots were flying a giant racetrack at the top, with as many as eight to ten gliders in a single circle at the same altitude.

I positioned myself well, and charged out on course at roughly 1350 behind several other pilots. I managed to catch up to the lead gaggle after about thirty miles, and then was obliged to lead out from there just short of the first turn. All that I could find was a 4 knot thermal, and promptly proceeded to be passed by the bigger gaggle that stumbled into a 6 knotter.

Coming out of the first turn presented some interesting opportunities. In the blue conditions, it was preferable to be behind the main group. By going farther into the turn circle, one was assured of having more markers. I had an easy ride over very rough terrain to the next turn. Two contest leaders, John Seaborn and Rick Walters, appeared out of nowhere on either side of me, and a couple of hundred feet higher. It seemed that my glider was standing still as they motored by. I kept checking my flap position and gear to see if anything was amiss. They left me in the dust as I struggled in the next two thermals.

I rounded the last turnpoint thinking that the day was shot. The day was dying, and the situation looked grim for the last leg. Visibility was awful, and I couldn't make out much ahead of me. After spotting one marker near a salt lake, I corked a 5 knot thermal that improved my spirits immensely. I set out for final glide with 42 miles to go and 6000 agl. To my great joy, I blundered into one of the best thermals of the day about halfway home, and took three turns to add 1000 feet to my glide path. This was enough to allow me to rocket home at 130 mi/h. Another pleasant surprise greeted me as I neared the airport — the two leaders called in just a couple of miles ahead and I finished only a minute behind them. I hadn't seen them for the last 70 miles.



On tow at Hobbs.

Dick Butler won the day with a speed of 81 mi/h. I received a sixth place finish, and slept better that night. About a third of the field landed out, including top-ranked Eric Mozer, who was returning to racing the 15m class after a several-year layoff, and fourth place Chris O'Callaghan.

Day 5: Hobbs / Muleshoe / Crossroads / Andrews / Hobbs

We found out this morning that one pilot was missing, and he had not been heard from since the previous afternoon. He was one of the more senior pilots, and there was worry that he might have crashed or had a heart attack. Apparently, the contest management had gone into emergency mode the night before, and had dispatched towplanes to search, with no success. They then alerted the national search and rescue organization, who by the morning were preparing to mount an air search. We were relieved to find out later that morning that the pilot had been located, after he spent the night in his glider at a remote and unattended ranch strip in the badlands to the northwest of Hobbs. He had walked to the only sign of civilization a couple of miles away from the glider and found locked gates, and no one in sight.

The pilot had an ELT, which he didn't turn on until early the next morning, and a handheld radio, which he turned on when he heard airplanes passing nearby. All the towplanes were pressed into service to fly specific grid patterns over the task area, and this proved to be the right strategy. The contest organizers were upset that he hadn't taken his cell phone, or made more effort to make contact, and asked him to stand down from the day of flying.

We launched into clear blue skies, with weak thermals to support us before the start. In a repeat of the previous day, no one wanted to go first, and we all milled around until it was too late. I started after 1430, and regretted it when we hit some boomers only ten miles out on course. A major problem presented itself, with some high cirrus patches blocking out sun in substantial areas of the task area.

I had a great first leg, and was by myself after two thermals. I tried to see if I could outrun the cirrus shadows, and tried to work my way east to the next turnpoint without stubbing my feet and getting low. I was apprehensive about this leg, because the morning Blipmap

forecast had predicted poorer conditions. True to the forecast, I got into trouble in short order, and was down to 2000 struggling over a bunch of oil pump jacks near Denver City airport. After five minutes or so, I was joined by two other gliders who were a welcome sight, as misery loves company. We climbed up to about 4000, and I left when the thermal dropped to a knot. I was surprised that Ray Gimney didn't lead out, but decided to follow.

I pressed on to the next town about twelve miles distant, and was rewarded with a saving thermal. A cirrus shadow was pushing in incessantly overhead, and the day came down to a decision of how far to press on in the face of deteriorating conditions, while knowing that turning too early for home would result in a time penalty if one came home before the minimum elapsed time on course. I settled for gliding on an easterly course for another five miles, and then headed home. I picked up several followers with each thermal and finally made it home early, regretting that I had not picked up a few more miles. I placed fifth for the day, moving me into seventh overall.

Several higher-placed pilots stubbed their toes on this day, including Eric Mozer, Chris O'Callaghan, and John Cochrane, who landed out. Rick Walters, the contest leader saw his lead evaporate when he couldn't connect over Denver City. He now clung to a narrow ten point lead over second place and day winner Timo Kiiha.

Day 7: Pilot Selected Task

Following a rest day, Charlie Spratt, the contest director decided to challenge the pilots with a pilot selected task. He first sent us off to a mandatory turnpoint at Caprock Station within a visible cloud field to the northwest over the mostly unlandable caprock. Following this, we were allowed to choose our own turnpoints at will.

Cloudbase near the first turn was 14,500 feet. I was concerned that without oxygen I might get hypoxic at that altitude, but it turned out not to be a problem. However, perhaps the oxygen deprivation contributed to some poor decision making, because I changed my mind a couple of times as to what turnpoint to use after the mandatory, and the course diversions slowed me down. I placed 14th for the day. Liz Schwenkler, a junior US team pilot, won the day with a great 88 mi/h flight in a borrowed ASW-27.

Day 8: Hobbs / Kenna / Wink / Hobbs

We were now nearing the contest end. I was well established in seventh place overall, with Ray Gimney and Chris Saunders nipping at my heels. Ahead of me were Tim Welles (sixth), Liz Schwenkler (fifth), and contest heavyweights Rick Walters (first), Timo Kiiha (second), Dick Butler (third), and John Seaborn (fourth). I was over 250 points out of first, which was a seemingly insurmountable margin for me to make up.

We launched with a task sheet provided just before takeoff, but in typical Charlie Spratt fashion, the task was changed in the air shortly after launch. We were re-tasked to Kenna, about 70 miles to the northwest, and Wink, about 90 miles to the south. I was anxious to leave, as we were required to stay on course at least 3:45 hours. However, when the start gate opened at 1330, no one wanted to be first even though we had about 300 miles to fly. I let a quarter of the fleet get out on course, and

then started right behind Dick Butler, one of the front-runners.

The lift was very choppy and with the conditions very tentative, it was difficult to decide how aggressive to be. Taking anything less than a 4 knot thermal, and you were likely to be left behind. Pushing on too far while waiting for the big one, and not connecting, would also put you on the back side of the power curve, with the entire fleet soaring overhead while you scratch your way back up to cloudbase.

Dick Butler seemed to be outrunning me, and I reluctantly decided not to follow, and chose a different tack. This turned out to be a good choice, as we met up about twenty minutes later, with me slightly in the lead. The clouds ahead seemed to be developing too rapidly, and as we neared the first turn, there was already cirrus blow-off from a cu-nim that was putting the first turnpoint in shadow. I opted to steer right of the turn to the edge of the sunny area — the rules permitted us to go wherever we wanted, as long as we were within the required turn area radius. I used this option to my benefit, and steered straight north to the far edge of the turn radius, about seventeen miles northeast of the turn.

As I came back to the south, I was pleasantly surprised to connect again with pilots that I surmised had turned south before me, which meant that I was doing better than them. Some really tough decisions needed to be made. When I saw the first cu-nim ahead, I gasped. It was a real monster with an anvil starting to form. I approached it cautiously, and wondered how deep I should go in towards it. For safety, I chose to run the eastern edge of the cloud shelf, where I could easily glide out to safety over the plains to the east. This worked nicely, and I simply climbed straight ahead, reaching cloudbase at approximately 12,000 feet asl.

The next cell ahead was more mature, and was releasing a cirrus cloud deck which was already putting the course line in shadow directly in front of me, and about ten miles to the east. I opted to steer east of the course line to stay clear of this cell. What appeared to be the active lifting part of the cu-nim was too far away from the edge of the cirrus. The cirrus seemed to suck the life out of several clouds that I set my sights on, and I simply continued to glide ahead, hoping to outrun the shadow.

Finally at Lovington, about fifteen miles northwest of Hobbs, I broke into sunshine, and took a few turns in the first 3 knotter that I could find. After such incredible lift and speed, it was difficult to accept the downshift in expectations. I pushed on when I saw a marker ahead at about the same altitude, and came in under BB (John Cockrane). We took about ten turns together, and then John left and found a better core. I followed John and rolled out to line up for some good clouds ten miles away. We reached them, and promptly were rewarded with solid 7 knot lift to carry us back up to cloudbase.

John had a few hundred feet on me, and I couldn't seem to stay with him. We made different choices on cloud streets, and I lost sight of John, without seeing any other markers ahead. I got a bit low (about 3000 agl), but continued to press on until I could land a solid 6+ knot climb. Eventually my patience was rewarded, and I climbed

back to base near the turnpoint at Wink. There were fabulous looking clouds around the turn, and we had the option to fly farther if we chose to lay down more miles. I had forgotten my start time, but vaguely remembered that I needed to be back after 5:45 pm. With 72 miles to return to Hobbs, and about 35 minutes time to do it, I couldn't imagine returning in anything less than that. I turned north, and was pleasantly surprised to encounter several gliders still heading south for their turn along the most obvious cloudstreet. It was very pretty and dangerous at the same time — gliders dolphining along the same street head-on can be exceptionally hazardous. Like the Pied Piper, I was joined by several gliders on the route home, including contest leader Rick Walters.

To my amazement, the cloudstreet held steady most of the distance home, and I arrived at Hobbs in breath-taking speed, having run the entire 72 mile stretch without a turn, and in 31 minutes, an average speed of 140 mi/h. To my great satisfaction, I won the day, and collected my first 1000 points in a US national contest in ten years.

The same night we experienced a frighteningly powerful display of atmospheric fireworks. Hail and heavy rain came down on the contest site, which rarely sees much of any rain during most of the summer months. Seeing water puddles out in this desert area is a rarity, and on the way to the airport the following morning, we questioned the likelihood of flying the last contest day.

As it turned out, the blue thermals were not adequate to carry us up to a safe height for start, and the day was cancelled. Timo Kiiha was declared the contest winner, having sneaked ahead of Walters by a scant ten points on the last day.

I finished the contest in sixth place overall, 220 points out of first. Wilfred finished 22nd, and Willem 36th. Overall, it was a very satisfying experience. The last time I flew the US Nationals, two years previous, I had placed 15th, with 94% of the winners score. This time I finished with 98% of the winners score, and felt like I was managing to brush off some rust and returning to form.

A bright spot in the contest was the participation of four junior pilots, all of whom did very well. 19-year-old Chris Saunders placed ninth, 25-year-old Liz Schwenkler placed fifth, and newcomers Mike Westbrook and Cathy Fosha had very respectable placings for their experience. These enthusiastic juniors are setting a great example for their peers, and provide a bright future for the USA soaring team. It would be good to see some Canadian pilots sponsor junior pilots by lending them their competition sailplanes, as has been done so effectively in the States.

We're all looking forward to Mifflin County in Pennsylvania for next year's rematch. ❖

Peter Masak began soaring at York Soaring as a high school student in the late 70s. He built an HP-18 with his instructor, Don Band, and started flying contests with it. He has represented Canada twice in World competitions in 1989 and 1991 and the USA once in 1995. Peter also pioneered the modern version of sailplane winglets in collaboration with Dr. Mark Maughmer at Penn State University. Peter currently resides in West Chester, PA.

Flying motorgliders

Réal Le Gouëff, MSC

... is still a work in progress

I HAVE HAD A TURBO GLIDER for the past two years. Since motorized sailplanes have not been around all that long, information on these type of gliders is not abundant. I thought that sharing my newly acquired experience with others hovering at the motorglider world could be of some help. My experience is minimal and some things that I think or do now will possibly change with time. But my input, added to other documentation available, could be useful in helping one to decide whether to go with an engine or not, and if so what type of engine.

Due to the limited documentation on this topic, gaining experience with a motorglider is mostly a painful self-learning process and I have just begun a long journey in this new world. My experience with my motorglider is mostly over the flatlands around Hawkesbury; therefore, it's most probable that I would behave very differently in a mountainous or other geographically different region. Consequently one should read what I write only for what it is, a personal experience, and nothing more. What I have is a "sustainer" glider, not a self-launching sailplane (SLS), thus will limit my talk to the smaller engined turbos.

For as long as I can remember since I began flying gliders, I was hoping to get a motorglider sometime. The independence that this would lead to was inspiring. Being able to take off or cover long distances to reach a point far away and coming back home to avoid a retrieve was what I was hoping for from a motorglider. When I was looking into what I would like to get, I was keen on an SLS; this was the "Right Stuff". I knew about the turbo (or sustainer engine) but in my opinion this was a bad solution. I thought that the turbo was uniting the worst of both worlds, which was having the problems of a motor without the benefit of being able to take off.

I learned the pros and cons of having a motorglider and came to the conclusion that I could deal with it. One of the comments that frequently surfaced was that one needed to be mechanically inclined, even more so with a self-launching sailplane — I believe this isn't exaggerated when I watch a fellow pilot with his SLS. I looked at various websites and magazines to find a used one and found that they were either too far to have a look at, and/or very expensive as a second hand glider. Whether used or new, the price was generally 50% more expensive than the pure glider. At one point I had found a DG-600M 17m in the USA, but going down to have a look at it was a tedious task. I came close to making the move but the major deterrent was the elusive information provided by Transport Canada about the type approval process for a new glider model. There was already a DG-600 in Canada but no 600M. They seemed to know how to elude straight answers. At the end of my red tape research, all those loose ends discouraged me, and I dropped the idea of going through the type approval nightmare. Antidepressant medicine would certainly be severely put to the test here! Take some before starting the process!

At the end of 2000, when the money became available, I decided to make the jump into the glider owner world. My club has very good gliders, but a lot of pilots want to fly them, so it is difficult to make long flights, and using a club glider for a cross-country would deprive other members of flying time. I had reached the point where waiting to share club gliders was preventing me from building hours and therefore I was not really improving anymore.

Help from other owners

In my quest, some fellow pilots gave me advice which was of great help. They basically told me three things:

- Having money in a glider was almost as good as having it in the bank. One even told me that instead of buying one glider he should have bought two as it would have been a much better investment than the ones he made in the stock market!
- Don't buy junk — you'll spend a lot to improve or repair it and you will never have more than an old glider, and most likely you will want to sell it to have a better one. Doing so you are just postponing things and will then go through the process of having to sell a glider on top of trying to find a better one, not to mention the time lost.
- The more you wait, the more you will impinge on your glider pilot life which has an end in time.

I finally opted for a new 15m Discus CS which turned out to be excellent. Had I known how satisfied I was going to be with my glider, I would have bought it years earlier.

I postponed buying a motorglider thinking that building experience on a standard one would be a sure bet, and also leave me enough time to get my act together and know the type of motorglider I really wanted: 15 or 18m, flaps or no flaps, turbo or self-launching. Despite my satisfaction with my new ship, my craving for a self-launching resurfaced and I soon looked again at motorgliders.

At some point I discussed the matter with the German dealer (on the east coast) about the pros and the cons of a motor. I was pointing out that, in my opinion, the only way to go was the full-fledged motor with self-launching capability when the dealer brought to my attention four important points in comparing self-launching versus sustainer gliders:

- The turbo will add \$23,000 to the price of your glider. The self-launching will add \$50,000 — the \$27,000 difference is a lot of tows.
- If there is nobody flying, it is probably not worth going on your own anyway.
- A turbo adds 70-90 pounds to a glider and the self-launching is about twice that — it's no fun having ballast you can't get rid of when the thermals get weak.



- Turbos are less complex than self-launching motors.

Knowing what I now know, I would have a fifth point, which is that a turbo is safer than an SLS. Among other things, you don't have emergencies like power loss on takeoff.

This shed new light on the motor world and I began to look at sustainer gliders in a whole new way and was weaned of the idea of buying an SLS. Simultaneously I gradually changed my mind about sustainers and I decided that this may indeed be the best of both worlds as opposed to my previous thinking. Nevertheless, I still think that SLS's are great but it wasn't for me at this point.

The D2 Turbo

A year after flying my first glider, I came across a "Top Gun" sustainer, the Discus 2 Turbo. I decided that I would sell the one I had and hoped to have enough time to get the money I needed to pay for my new ship. Early in 2002 I got the bank to buy it for me. Of course there were minor details to negotiate with them: my soul, my house, shirt, ... I kept the car because at 300,000 kilometres they didn't look at it! I picked up the glider in Halifax in spring of 2002. It was just gorgeous to look at — love at first sight! Once back home it was 2-3 weeks for the red tape to go through.

My maiden flight can hardly be described in words. The glider was a marvel to fly, a real speedster with unmatched coordination and above average maneuverability. My cruising speed is about 5-8 knots faster now. The performance is outstanding, it behaves in a predictable manner and has no vices of any sort. The cockpit is roomier than the Discus CS, and things seem better placed. Rigging is a bit easier due to flat wing roots with longer steel peg guides near the trailing edge. The cockpit has a great finish that is standard. This glider is simply superb, uniting excellent craftsmanship and quality, and the looks of it beyond description. Engine equipment, installation, and instruments are top quality.

One can make no mistake in buying this glider with or without an engine. I am having great flights with it and there is no doubt that it has expanded my horizon and enabled me to fly further, faster and longer. *However, despite all its qualities, the bare fact of carrying an engine involves learning a whole new soaring behaviour that is not easy to acquire.* Many rules by which you were flying are not applicable to motorgliding and information is not easy to find.

Owning a motorglider

I would classify the process of having a motorglider as the summation of four steps: Wanting, Getting, Owning, and Learning:

Wanting a motorglider is everybody's dream — very easy to imagine and not much more to say here. Getting one is for the fortunate. Beside the infamous ordeal of choosing the type of motor, one needs to muster a sufficient amount of cash to pay the bill.

Owning one is harder. You have to maintain the glider in good condition and this is a lot more work than for non-motorized ones, but it is still relatively easy.

Learning about using it in the right way is a work in progress. From here on in, you are on your own! I have the feeling that this is like doing science, we progress by trial and error. This can be acceptable but it can lead to difficult situations, not to mention that this process can be expensive. You will find in this article a summary of my neophyte experience in that regard.

Maintenance

Getting the glider ready for a day of flying is straightforward except for the engine part. By this I mean that you have to inspect the engine, engine bay, the battery, tubing, the extraction and retraction, propeller, all lock nuts, and of course, not forgetting to fill the gas tank! It can hold 13 litres. Having more gas adds weight, and if you don't use it, it is recommended to drain it after 6 weeks. I found 4 litres to be the ideal quantity for the type of flying that I presently do. Don't forget to have a fire extinguisher handy; if you play with gas, fire is a real threat. Since we are talking two-stroke, there is obviously some oil mixing to do, the ratio is 40/1.

The oil needed for the *Solo* engine is extremely difficult to find. I asked all over the place and could not find any. After a few months of running around, I asked a relative who was coming to visit me from Europe to bring me some. I guess the engine would run with other types than the two recommended by the manufacturer, but I did not want to use non-approved 2-stroke oil.

One has to be careful in checking the engine. This assembly of various mechanical pieces vibrates a lot and makes noise. I carry small ear plugs in the glider. It is not terribly noisy but it's not music to my ears either. The turbo is far less complex than the self-launchers, still it needs a little care when D'I'ing it.

The other day I was going through my checks and found a broken retainer spring, one of the two. I haven't the foggiest idea why, as most of the time it is not under tension as it is stretched only while the pylon is extended. Well, mechanical things break — if it can happen

it will, the rest being a matter of time multiplied by the probability of an incident!

To use or not to use the engine

This is a very Shakesperian question! Using the engine the “right” way is simple but challenging. I don’t think that I’ve mastered it yet.

“When should I start? How low can I go? How should I behave with engine running?” These are samples of the many questions you will face as a motorglider pilot, and there is not much training available for that. I always hear about the “be careful” stuff, but that isn’t an answer per se. I find motorgliding and some advice surrounding it very similar to these dead end answers; for instance, “Use the engine cautiously!” This doesn’t help in knowing how to use it! I don’t like the guesswork, but sometimes have no other choice. What do I do? For instance, as soon as I reach 3000 feet these questions (engine, fields, airports ...) are starting to rise. I am not at ease until I find a thermal. I know 3000 appears to be too high to be wary but that’s how I feel. The lower I am the worse it gets.

For the moment, until I feel more comfortable with engine management, I always keep a final glide to a local airport or at least to an area with large almost perfect fields. But this is much more difficult than you think! For instance, in order to reach a landable area, how do you decide what your glide ratio is? Is it the glide ratio of the clean glider, 43/1? Is it the ratio with an engine failure but retractable again, 43/1 minus 4–500 feet lost in the process? Or is it with engine out but impossible to both start or to retract, 18/1 minus 4–500 feet lost for an engine start attempt?

The more hostile the terrain, the more cautious with minimum altitude I try to be. Without an engine there are not that many worries, I just go from a landable field to the next one. But with the engine it’s a different story because you must assume that the extraction or worse, the retraction, may fail and suddenly you don’t have a glider but rather the glide angle of a small single engine airplane experiencing a power failure.

In exceptional situations (I did it only once), if I have an airport right below me, I will go as low as 1100 feet on what would be the downwind leg of the pattern, and start the engine while being in a good position to land if the worst were to happen — engine failure and impossible retraction. If I am above a very good farm field I will start up between 16-1800 feet at something like a 45° angle from the point where I would land if need be, or I will try to glide first to a local airport and can start the engine at a lower altitude. In this case if the worst were to happen I would land on the airport and call for an aerotow.

This has happened once when I got stranded over a good but somewhat far airport for an aerotow. In this situation I got the engine out and climbed in the direction of a closer airport to home while insuring I would still have a glide back. On my way I ran out of gas! I had foreseen it, but when it happens you always wonder! I retracted the engine and glided in to that closer airport and called for the towplane. With hindsight I now realize I had not taken into account a possible retraction failure. I had no problems therefore I was lucky, not skillful!

Generally speaking I usually don’t go any lower than 1500

feet to start. At this point it is Red Alert in the cockpit and I have been going through my start-up procedure a few times to be sure not to miss something obvious, for instance not turning the ignition switch ON. Stupid, yes, but accidents are most of the time avoidable and frequently caused by simple things! I read a few accident reports where the source of the problem was that the pilot was disturbed and forgot to switch on the ignition.

If I am over hostile terrain and I have to think about starting the engine, that means that I have already made a big mistake. I usually make sure not to be there in the first place but it happened once. If I do get the engine out, I stick above the best field and gain altitude there and will move on to the next landable field with the engine running and so on until I reach an appropriate altitude where I will have enough time to plan — easier said than done. I still have to calculate that the engine could fail between the fields. In all cases, I have to think of that worse case scenario that could happen.

If you fly your glider as if it was a pure glider and only start your engine in the circuit pattern of an airport at an altitude of 1200–1500 feet and climb locally until reasonable altitude, you are less likely to have problems. But will you resist the temptation of stretching the envelope? I think that it is human behaviour to go to the edge, all extreme sports prove me right! So every now and then you will most likely behave in a human way and go a bit too far!

Other things to consider if things go sideways

Assume you are at 1500, worried, you have pushed your luck a bit too far, and many things are going through your head. You have been flying for 5–7 hours, the sky is now overcast thus disabling thermals. You are far from home, you desperately want to avoid a tedious retrieve, you are tired, your bladder is sending a dump message every minute, and the computer between your ears is crunching numbers at a snail’s speed. You have been unsuccessful in finding this last thermal that was to get you back in business. You decide to quit and use power to go home.

So you have 1500 feet you get the engine out, that’s about 10 seconds. Then you are in the “free fall” mode for the moment. You have to gain speed to start the engine. You therefore dive toward the ground and lose 2–300 feet. It does not start! You try to think what is wrong? You try another time it still does not start. If you are successful in retracting the engine you will be at 6–700 feet or less. Now you have to think about where you are going to land, that’s if you have been careful to fly over good fields! But do we always fly where we should or where we think there are thermals! The truth lies in between.

If it can happen it will! If you had no engine, you would most likely have not come here and second, would have used all that precious altitude to get 10 km closer to home and plan a good landing in a field. You are now in a bad situation. The only worse one would be having an engine partially working (on one cylinder for instance) or having an engine pylon that goes on strike! which will puzzle you all the way to the ground, and I am not exaggerating here! Just spare the time to read a few accident reports and you will be amazed by what pilots

do or don't. You will most likely say, "I would never have done that!" There is a saying in French that goes this way: "It is easy to see a twig in your neighbour's eye but very hard to see the tree stump in your own!"

Think for your engine

I mean you have to think ahead about all possible scenarios, because if you get in trouble it will be due to engine failure associated with a lack of planning. I use the engine about one flight out of two or three. Why is that? Well, I've changed my way of planning a task. I will generally fly to airports that I would not usually venture to because of the possible risk of a landout. With the turbo I know that the engine will normally fire up and bring me back home. But as I mentioned earlier, using the engine means that you have to think about all the, "what happens if ..."

What happens if I can't get the engine out? (It happened once.) What happens if it gets out but doesn't start? (This happened once and almost two other times.) What happens if I can't retract it? (Hasn't happened yet.) What happens if the engine stops in flight? (It happened three times but I had foreseen that I was to go to run out of gas and planned accordingly.) What happens if I lose a blade in flight? (Hasn't happened to me but I read an accident report about that on an SLS.) What happens if it runs partially? (Happens all the time for a few seconds at the beginning.)

For the moment I have one major solution for all these questions — I start the engine in the vicinity of an airport in order to be able to land if one of the above occurs. If you are down to 1000 feet it is much too late. The manufacturer doesn't say much, but they do say "no engine start below 1000 feet"! Fly as if you have a pure sailplane unless you are in a life-threatening situation and using the engine would be the lesser risk — but first and foremost don't get yourself cornered in such a way.

The motor paradox

How many times have you heard on the radio a fellow pilot saying that he just found a thermal at 1200 feet or 1000 feet or ... This is something you will very rarely say if you have an engine on board! Paradoxically, the engine will cripple your glider to some extent because you won't go as low in search mode as with a pure glider that will search and may eventually find a thermal sometimes very low when close to a field and ready to land. Therefore you will terminate an ongoing task frequently because of the use of the engine at 1500–1900 feet that you possibly would have completed had you been without an engine.

1000 feet flying a pure glider is like 1800–2000 feet for a motorglider because you are almost in landing mode in both cases. You could say I am going to act as if I had no engine and take the chance to go as low as I need to find a thermal! But how many pure gliders will keep 100 pounds of ballast until they find a flight-saving thermal at low altitude. Usually the pure glider will have dumped ballast a while ago, increasing its chance to climb if a weak thermal is found close to the ground. You can't dump the engine, therefore you need a bit of a stronger thermal to stay aloft. Awkwardly if you try to find the saving thermal up to the last minute you will land out more often than the pure glider — thus the paradox.

Don't forget what you wanted to get the engine for in the first place! It's to avoid tedious retrieves. In these cases, not

only do you increase the chance of a land retrieve but you need a longer field because of the added engine weight!

Now we know that the lower you get the more dangerous it gets for a motorglider, you opt for the safest approach possible. If you decide to be ultra-safe and use your engine at a higher altitude then you will use it at each flight thus annihilating a chance to complete a difficult task along with the self-satisfaction that goes with it and thus reduce your score on the OLC or in badge attempts. If you have a computer on board, look at your flight statistics and determine how long you have flown between 3000–4000 feet, between 2000–3000 feet, between 1000–2000 feet, and how many times you have been really low prior to finding a thermal. You will find that there are flights in which you have been relatively low for most of the flight. Due to the fact that you have an engine you probably will have flown these flights at a higher altitude thus have used the engine once or more in the flight and consequently scored less distance! So why have a motor if you can't do at least the same work as a pure glider?

Of course, one can say that to be safe one will fly higher than the pure gliders, but generally speaking the thermals (or cloudbase) are the same for all gliders whether you fly a Nimbus 4 or a 2-33. Therefore if the day is bad, it is bad for all of us!

A motor reduces one's security at low altitude but expands possibilities when higher (within limit). Opposed to this affirmation, pure gliders are safer at low altitude because they don't have a choice to use or not to use the engine, they are lighter, they won't lose 300 feet in a starting procedure, and they don't face possible motor failure. Motorglider accident statistics have proved that!

Training for the engine

One needs a lot of self-discipline to train oneself to use the engine properly. It is advisable to practise a lot to get very familiar with the starting process; in fact, engine start should be an automatic routine like the pre-takeoff checklist. This will enable you to start without fumbling around at a time when you do not have altitude to spare. It is also useful, a few minutes prior to using the engine, to run your routine in your head a few times. Once, at the end of one day of flying, I ran my engine about ten times in a row just to make sure that my routine was perfectly tuned.

Human factors

Things would be much safer if humans were stable in their behaviour. Unfortunately we are not machines and cannot predict the way we will react when a difficult situation presents itself. Pilots differ from each other and the same pilot will behave differently from time to time. Generally speaking emotional and physical factors influence our behaviour and humans react in unpredictable ways to these factors. How will a pilot react when cold, tired, physically or emotionally stressed, dehydrated, or lacking oxygen? How many times may you have said to yourself, "I just don't understand why I have done this or reacted this way". Also, we usually try to rationalize or excuse our behaviour, or simply blame it on someone else. No matter how safe you are today, will you be the same tomorrow?

Takeoff and landing

Taking off with the extra weight of the engine means that I need a little more speed for takeoff. I typically ask the tow-plane not to use flap and, if he takes off prior to me, I ask him to stay a few feet above the ground until I can take off. Landing is a bit faster too, 58 knots minimum, so the rollout is longer. My glider has the disk brake option which helps when I need its stopping power.

What I use the engine for

- Coming back home when I mismanage a task.
- Having a second chance when I miss my first few thermals right after takeoff at my home field and I am bound to land. This way I avoid dumping the water ballast and a landing with the wait for a second takeoff.
- Reaching a field close to my home field and getting an aerotow from it (if I now don't have enough gas to make it home).
- Thermal with the engine on, with or without ballast, if I had started the engine to avoid a landout and incidentally fall into a thermal on my way.

What I don't do

- As opposed to what I used to think, I don't try to reach far away places (too costly in gas; I usually just carry only four litres). I rather save the gas to avoid retrieve. Anyway, if I can't reach an area with thermals, I will not be able to come back from it.
- I don't try alternate takeoff methods like being pulled by a car or start the engine on the ground and attempt a take off. I had fellow pilots talking about theoretically being able to take off with the turbo. In fact the early motorgliders had small engines. But don't forget that the early self-launching gliders went from 24 hp to 50+ hp. The takeoff run is so long and the rate of climb so low that you are asking for a large amount of trouble if any of a number of things go wrong.

Climbing

Using the engine implies that you are somewhat low. Therefore you obviously want to get back up as fast as possible. The turbo gives you about 200 feet/min of climb in the best case. Don't forget that you will follow the air mass flow, so if you run into air going down at -4 you will be going down at -2. The bright side is that if you find a thermal at +4 you will get +6. Climbing with a turbo is so slow that sometimes you may get very anxious thinking about all that could go wrong if close to the ground.

Improvements for the near future

First, have a turbo with a bit more power. About 65% of the power, 65% of the weight, 65% of the cost, and 65% of the problem of having an engine is to compensate for the engine itself without any benefit in climb! Something like 4-5 horsepower more would be very beneficial and the cost in added weight minimal. The first few hp only counteract the drag created by the engine — I was told that it takes about 10 to maintain flight in still air. If you have a 20 hp engine, a few hp cancels the engine drag (2-3 hp perhaps), about 10 hp counteract the glider's drag, and only the remaining 8 hp gets you the +2 climb rate. Having four more horsepower yields a 50% climb rate improvement.

Second, an engine should not jeopardize a glider but rather be a safety feature, but this is not entirely the case at present. No matter how good you are there will be a day when a chain of events will lead you to a serious mistake. Starting

an engine can be stressful. The fact of increased accident rates with a motor is real. Many pilots bought a motor to get them out of problems but cornered themselves in critical motor-related situations to become a statistic. Some cleverly applied technology could avoid a lot of potential problems caused by pilot error which is at the root of 95% of all accidents. A single button or activating one lever to get the engine running is the most a pilot should have to do at the critical moment. The engine actuating system of the *Antares* electric powered sailplane appears to be an elegant solution; one lever does it all!

Your biggest enemy

If there is a problem you will probably be the source of it. Your best line of defence is to know your equipment and all the routine that goes with it. Some of the proactive actions one can do are:

- A good DI of the engine and its systems,
- Practise start up and retraction routines on the ground,
- Minutes prior to starting run through your head your routines a few times,
- And above all — don't corner yourself.

This is all evident but who does it perfectly. Don't we all forget little things here and there!

Am I satisfied?

Well — sometimes I wonder when I have looked at the trouble I go through to play it safe, to sustain the added energy needed to maintain proficiency in using the motor, and in using new ways to fly as opposed to the cozy comfort of not having to worry about carrying an engine on board. For the moment I still think that the sustainer is one of the best solutions on the market. I lost my illusions about engines but not my ideals. I believe that I am much more realistic about the limitation of having an engine than I used to be.

If I was to get another glider I still think that, despite the trouble generated by having a motor, the benefit of having it will outweigh the trouble they cause. I'm sure that future development will lead to progressive improvement that will render the motorglider much more fun and safer. Anyway, it's possible to remove the engine anytime and have a pure glider but it's not possible to go the other way round.

My advice to others

- If you get a motor, be realistic about what it does.
- Whether a motor or pure glider, the money you invest in it is almost as good as in the bank.
- Spend more and get the best right away (according to the money you have available).
- The more you wait to get a glider, the less you fly and the older you get.
- You should get all the options you want right away. Adding them later may prove costly or impossible.
- Avoid having to need to put "add-ons" later. By this I mean having an incomplete system that you will complete later on your own. This will most likely not work as well, nor be cost-effective and leave you without the complete system for a longer time than you think. For instance having a glide computer that need other parts to work properly: GPS Software, PDA, etc.

a visit to Pemberton

David Donaldson, Great Lakes

IN MY ROLE AS A CORPORATE TRAINER I OFTEN TRAVEL. Most of my trips are less than a week and consist of the late flight in the night before the course starts and an evening flight out on the last day of class. My trip to Victoria, BC was a little different. It was two weeks long so I used the weekend to go visit an old friend, Garry, who lives in North Vancouver. After graduating from university, Garry moved west. Although we have visited several times over the years, we were never able to include soaring in those plans, until now.

The plan was to drive up to Pemberton and camp for the weekend. Friday night I hopped a Twin Otter to Vancouver then on to a local watering hole for some refreshments. After a couple more stops we had assembled our camping gear and, having been convinced that it was better to drive up Friday night, we arrived at the airfield at 2 am.

The day broke variable and cloudy — flyable, but not great. We followed a recommendation for breakfast at the *Pony Expresso*, not much to look at but great food. Back to the field and two checkflights with Alan Wright. The flights were the usual drill of demonstrate the following: box the wake, emergency signals, spin, local landmarks, etc. My final approach was a little off so we went for a second. This allowed some time for ridge soaring. With Alan talking me through it, we snugged up to the side of a small hill (a mountain by Ontario standards) and proceeded to figure-8 our way up the side. While we did not gain very much altitude, it was a wonderful introduction to this new type of flying. I had faith in my instructor. It was close, but not as close as experienced pilots get, and that was fine with me.

Signed off, Garry and I headed back into town for lunch. No good day of gliding is complete without hanging around the field enjoying the good conversation and

good food. Fully “ballasted” we headed back to the airfield. We waited while a student flew his simulated rope break and a short instructional flight, then we were up.

As we climbed, Garry was busy with the camera. We headed over to a ridge line northeast of the field. It is a great test of faith in your towpilot as we headed directly towards “Cumulo Granitus”. A left turn and we picked up some extra lift on our tow to 4000 feet. The release did not appear to leave a lot of room for a right turn so once we were clear I immediately rolled back to the left to turn away from the ridge. In hindsight, I am sure I had enough room to make that turn to the right but I wanted to play it safe.

For the next twenty minutes or so we slowly climbed to 5300 feet and were rewarded with the best view of the day. The ridge line we were working was just over 5200, so we got a short glimpse of the surrounding mountains. Being extra cautious not to cross the ridge crest, I lost the lift and we settled back into our dance along the ridge.

While we could hold on at the ridge, we were not really going up so I elected to head over to the “Baby Sitter”, the small ridge that we had worked on my second checkflight. Heading across the valley we picked up a couple of small thermals that did not go anywhere. Ensuring we were within easy gliding distance to the field, it was Garry’s turn. His first time on the controls was much the same as any first-timer, all over the sky. We got the call to return and were back on the ground about fifteen minutes later. Rain showers had been passing through the area all day; in fact, at one point during our ascent up the ridge we were climbing in rain. Another first for this flatlander. Minutes after we landed a nasty little shower passed through that was accompanied by strong, gusty, and fortunately short-lived winds. I looked up at Rudy, the owner of Pemberton Soaring, and asked if this was the reason for our recall, he gave me an all-knowing smile. There is no substitute for local knowledge.

With the aircraft safely in the hangar we waited to see what the weather was going to do. There was a passenger flight that stayed up to avoid the weather. After a report when they landed we decided to have a second flight. Did I hear the word “wave”? As we pushed the glider back on the line Rudy looked up at the mountains and recommended that we call it a day. Not even ten minutes after closing the hangar doors the skies opened with hard rain that sent us running for the club house. Unlike the passing showers of the day, this one covered the entire valley. I was glad to be on the ground.

There are three things that made this flight very special for me. Introducing a good friend to the sport, flying in the Rockies and it was the 20th anniversary of my first flight. My thanks to everyone at Pemberton for helping make it a memorable day. To those of you who have not been there yet, I highly recommend it. ❖



Nigel Proffier

Pemberton airport during the big flood this fall. Fortunately, only the wheels of the gliders got wet on the raised floor of Pemberton Soaring Centre’s hangar.

Marc & Scott at Booker

Marc Arsenault, Outardes



AUGUST 10, 2003 WILL BE NOTORIOUSLY REMEMBERED as the hottest day on record in the United Kingdom, specifically in London, where the mercury hit 38°C. Somewhat early in the morning, I had met Scott Brownlee from the Edmonton Soaring Club in the unairconditioned hotel lobby where we both stayed. An earshot away from London Heathrow, we decided to head out for the country side in a four wheel engine driven air conditioner. Our destination was Wycombe Airpark to visit the Booker Gliding Centre. The required forty-five minute drive was converted to seventy minutes — there is nothing like two pilots driving!

Though we arrived unannounced, we were greeted with the traditional and warm British welcome. Wycombe Airpark is rather impressive to the untrained eye, as I come from a small club operation. Hangars cover the airport with a full control tower overlooking a single paved runway sided with an impressive grass field. Like so many club operations today, BGC enjoys its inheritance from the post WWII. A good background story can be read at their website: <www.bookergliding.co.uk>

Wycombe Airpark is a busy place. A helicopter school, two conventional flying schools, a commercial sightseeing tour (sporting a Tiger Moth), privates, even a Supermarine Spitfire, all share the enjoyable airport in apparent harmony. Booker is home for at least 350 members and employs full-time instructors, towpilots, and administration personnel. It operates seven days a week. The club offers an attractive fleet that's second to none:

1 Duo Discus	2 Discus
2 Pegase	2 SZD Junior
1 K-18	1 K8
2 K-13	3 ASK-21
1 Falke motorglider	1 T-21 (open cockpit)

At least 50 trailers are tucked away on the side of the field, quite an impressive sight. The important tow aircraft fleet is composed of two PA-25-260 Pawnees (4-bladed props), a PA-18-180 Super Cub (external silencer exhaust), and a Robin DR 300 180R (4-bladed prop and external silencer exhaust). Noise abatement is a serious affair in this part of the world and Booker handled this task responsibly.

Once the usual formalities were completed, Scott and I were introduced to our instructors. Nigel Perry, who was field manager, took care of Scott, and Andy Perkins had the dubi-

ous task to oversee my efforts. Being new to the area, a detailed briefing of procedures and airspace restrictions was provided. Keep in mind that London Heathrow is only about twenty miles from the field and this is one busy airport. Departures on east-bound flights overfly the area at around 10,000 feet.

We were each assigned a venerable K-13 — “go to that blue one parked there”. Neither of us had flown this type, and it was with great expectations that I was looking forward to this check as my former CFI has nothing but praise for the K-13.

As a field ops centre, the club uses a functioning double-decker bus. Because of the scorching heat, lift was not apparent at all. The pilots were all standing by in the shade of the red, white and blue mobile landmark. “So why not send the Canucks to sniff, eh?”

After a walk-around, we put on the mandatory chutes and jumped into the very well-maintained trainer — the canopy was immaculate. Towing behind the Robin, I had time to get acquainted with my knowledgeable instructor. Andy, it turns out, was a UK competitor at the recent Junior Championships in the Czech Republic. He also flies for a living and was very anxious to finish up our flight since he had to catch a flight to go and visit his sweetheart in New Zealand. A true soaring pilot, in my book — always stretching the day to get those last few thermals before heading you know where!

I honestly thought that we would be out for just a quick though enjoyable glide and some local sightseeing. Well, it turns out that lift was shaping up with approaching northern instability. We managed to pick up a few broken thermals climbing our way to the upper limits of the airspace and had to move westbound to the open area to carry on with our ascent. Well, from there on we could watch the activity on the airport: trailers were opening up, tugs were all started, and formations were coming up to join us! After fifty-five minutes of utter enjoyment with a very amicable Andy, we maneuvered ourselves down for a landing. The K-13 is a true joy to fly. I can see why it is used worldwide.

As Andy quickly headed “southbound”, I took care of our glider. Now I was allowed to fly off on my own, a very tempting deal indeed. However, there were also quite a few people now understandably ready to fly! I was just as happy to lend a hand around the field along with Scott and blabber with fellow pilots, sharing our notes.

Towards the end of the day, we made our way back to our hotel where an appointment was made to meet our “working group” at the Whitehorse pub. Needless to say, both of us were quite willing after that very hot day.

Scott agrees with me that this day turned out to be the highlight of our summer. I certainly hope to return soon and it will be an honour to welcome anyone from Booker over here in this part of the world. ❖

La version française de cette sortie au Booker Gliding Centre se retrouve au : <www3.sympatico.ca/marcarsenault/articles/booker.html>

a volunteer in Leszno

Art Grant, Winnipeg

VOLUNTEERING WORKED FOR ME in Mafikeng for the 2001 South African Worlds, so why not Poland? My first contact with the office was Ania Witek-Crabb with the intention of finding inexpensive lodgings. It turned out that none was available in my price range but the contest director accepted my offer to work on the scrutineering team and I was in! My apprehensions about traveling alone in Poland were unnecessary: Winnipeg to Toronto to Warsaw ... Chopin Airport to Warsaw Grand Hotel by bus (buy two tickets, one for me, one for my backpack!). Two days of touring Warsaw then train to Leszno. A kind soul I met on the train arranged a ride to the airport for me once we reached Leszno — it would have been a long hike! Meeting Ania, she soon had me in a room and connected to the rest of the team. Work was to begin the following day. The Team (not the “A-Team” of Mafikeng this time, but a good one just the same):

Tomasz Makowski – the boss. An aeronautical engineer, his real job is chief engineer of the Aeroclub of Poland.

Martin Bulanda – the best assistant-everything on the site. Martin is a pilot at the school, flies and teaches gliding and power, instructs in aerobatics, does the night flying stuff, and does formation flying in a PW-5 with his glider inverted in what they called “mirror flying”! Anything that needed doing, Martin got it done.

Art, the Canadian flunky! It surprised me how well I had learned the job in Mafikeng and how many of the pilots and crew remembered me from the A-Team.

Scoring team members, especially Domenik, assisted as required. As well, Paul Scholfield of Australia helped with the initial inspections during his spare time while attending the OSTIV Conference. And,

Paul Tolson, who joined me on my weighing station for the duration of the contest. Paul, a Brit, rode his bicycle in from Prague! He used to own Mike Glatiotis’ HP-18 which he flew while living in Invermere a few years ago. Paul was a much appreciated English speaker in a sea of Polish at the weighing stations.

The job of scrutineering

Each glider was brought to the inspection station ready to fly — loaded with water, parachute, batteries, and personal water. Maximum weight was arrived at by calculating the permitted all-up flying weight less the pilot(s) mass. The glider was then re-weighed on the main wheel in the tow-out configuration. The glider could then be weighed as it is towed across the scale. Instruments were inspected to ensure they met qualifications because the rules had excluded those which would aid in cloud flying — two gimballed compasses were caught and removed. Visibility wing markings were required and proved to be a sore point with many because the rules were quite strict on placement. (Studies have apparently shown that such markings work only when snow forms the background and in general such use acts almost as camouflage by breaking up the glider’s shape!) Glider wingspan was to be measured to ensure it conformed to class restrictions — not a problem for the two Eta’s — just put them down as BIG! In the end, because the laser was late arriving, measurement was cancelled.

Daily inspection

Once the tow-out weight has been established, all that remained was to weigh each glider each morning on the way to the grid. The first morning of the contest, we had only two scales with which to weigh 128 gliders. It was a busy morning! By the second week we were working with four scales, making the job much easier.

Because the officials had declared that no penalty would be applied for dropping water at the weigh-in, many of the contestants arrived with excess water but eventually realized that it took too long if they had to drain some water each day. By the third or fourth day most had their loads down to within the two kilograms which were allowed to pass. Anyone more than three kilos overweight had to drain. That’s not to say there weren’t problems; one team in particular took exception to the accuracy of our scales. Stewards and their team captain were summoned, but the weighing team prevailed and the seven kilos of water was donated.

Each passing of the scales had also to be accompanied by an examination of the cockpit for parachutes (adding them later could give a five or more kilo advantage), personal drinking water (another four), and batteries (1 or 2 kilos).

This routine went on each day of the contest. Scales were set up before breakfast at 6:30, and manned by 7:45. The grid was usually called for 11:00 but on several days we had to have all gliders weighed and on the grid by 1015. Sven Olivier of South Africa and the crew of Chip Garner of Team USA were always our first customers.

The finish line

This job involved helping set up the line itself (canvas sheets on each end of the line) and, eventually, crowd control measures to help keep the spectators safe. With members of the scoring team, my job was to record the contest number of each glider and its finishing time as it passed over the line. The times were then phoned in to the scoring office so they could publish unofficial results as the gliders landed. (I initially thought this would be a great place to watch the finish but soon discovered I was working too hard to see much. Getting the contest numbers and times from six or seven gliders landing within a second or two of each other did not leave time to watch! I did however find the perfect spot from which to watch the finish once — 1000 metres in the air above the finish line. George (Moose) Szukala, Ed Hollestelle’s crew, and I went up in a Puchacz on the second last day and watched all but one glider cross the line.

Much too soon, the contest was over. After a great all-night dance party and the closing ceremonies the following day, it was time to depart for a two day visit to Krakow, travel back to Warsaw and head home. I am left with many wonderful memories of my visit, and I’ll try to put these into a follow-up article. ❖

Compétition provinciale

La fin de semaine du 28 juin, se tenait au Club de Vol à Voile de Québec, les compétitions provinciales. Cette compétition se veut une répétition avant la tenue des compétitions nationales de 2004.

Six compétiteurs se sont inscrits et un a du se désister à cause d'une entorse lombaire sévère.

Le samedi 28, 6 compétiteurs ont pris le départ d'une tâche qui a été déterminé comme un TDT (total distance task). Les compétiteurs devaient faire la plus grande distance en utilisant un maximum de 10 points de virages parmi une sélection de 48 points et sans faire d'aller-retour entre deux points. Les conditions de vol étaient plutôt difficiles avec des thermiques instables et de petit diamètre avec des zones de chute importante entre ceux-ci.

Dominique Bonnière a réussi la meilleure distance de la journée en s'éloignant assez rapidement vers l'ouest où les conditions se sont avérées plus favorables. Il a réussi une distance de 282.1 km. La deuxième marque de la journée a été faite par Bruno Bégin du CVVQ qui en était à sa première compétition. Il a eu la chance de profiter de meilleures conditions de vol en prenant son départ à 14h30, ce qui lui a permis de compléter 217.9 km.

Cette journée magnifique s'est terminée par un BBQ organisé par Jean Fortier et sa conjointe. Ce fut aussi une réussite totale. Merci Jean.

La deuxième journée, les conditions météorologiques semblent encore moins favorables, Ulli Werneburg a décidé de prendre le chemin du retour et Richard Noël n'a pu prendre le départ. Les quatre compétiteurs qui sont restés ont trouvé des conditions bien meilleures que celles qui avaient été annoncées, ce qui a permis d'enregistrer des distances intéressantes.

La troisième journée prévue au programme a été annulée faute de conditions météorologiques valables.

La conjointe d'un compétiteur a émis un commentaire à l'effet qu'elle n'avait pas vu depuis longtemps une compétition aussi relaxe que celle là. Nous espérons bien être en mesure d'offrir aux compétiteurs présents en 2004 des conditions aussi sympathiques que celles de cette année.

Je tiens à remercier tous ceux qui ont permis de rendre cette compétition possible: Bill O'Brien qui a pris la responsabilité de la compétition et des opérations au sol, Jean Fortier qui a préparé la signalisation et le BBQ, Jean Marc Ducharme, et Jean Desbiens.

The weekend of 28 June, the Provincials were held in St. Raymond at the Club de Vol à Voile de Québec. We saw it as a rehearsal for the Nationals to be held in Québec next year. Six competitors registered for the event but one of them had to cancel his participation because of a bad back.

On Saturday 28, six gliders took off for a TDT (time distance task). We had to do the greatest distance possible in three hours, using a maximum of ten turnpoints among 48 possible choices. Flying conditions were not very good at the start of the task with very narrow and unstable thermals and strong sink in between.

Nick Bonnière escaped to the west quite early and found better conditions there and came in with a 282.1 km flight. Bruno Bégin, with a late start, had the luck of finding the same conditions that, by that time, had moved east into our area. He turned in a card of 217.9 km for a second place.

The day was completed by a BBQ organized by Jean Fortier and his wife. A great success. Many thanks Jean.

On day 2, the weatherman offered a poor forecast and Ulli decided to call it quits and go home and Richard Noël could not be present. The four remaining pilots found flying

conditions much better than anticipated and again Nick (surprise!) came in with the best distance at 247.3 and Bruno did four kilometres more than Roger Hildesheim who placed third overall.

The last day was rained out.

The crew of one of the competitors remarked that she had not seen such a relaxed feeling around a competition. We hope to offer as pleasant a setting for next year's Nationals and that the participants enjoy it as much as we enjoyed hosting the event this year.

I want to thank those responsible for this success: Bill O'Brien responsible for flight operations, Jean Marc Ducharme who oversaw the scoring, Jean Fortier who took charge of signage and the BBQ and Jean Desbiens.

Bruno Bégin

Club cross-country (comment on r.a.s.)

The club I belong to has been working hard to increase cross-country flight by club members. There were several successful Bronze badge days last season — Bronze is the required qualification for using a club ship for XC. The club does assess a fee for landouts if the flight was not intended to be XC, but not for a landout on a planned XC flight. The landout fee is really a fine for poor planning or poor situational awareness and the disruption it causes to normal operations.

I'd like to hear how other clubs treat XC flight in club ships. Here are the policies of the club I belong to:

- Bronze badge is required for taking club ships cross-country.
- Reservations for XC flights are accepted on Thursday nights (all club ship use is scheduled on Thursday night for the following weekend. Normal flight reservations are 1.5 hours. XC can be all day).
- Pilot cannot reserve for XC flight on consecutive days within a weekend or on consecutive weekends.
- Cross-country pilot responsible for inspecting the trailer/related gear and assembling a retrieve crew before takeoff.
- Aerotow retrieves available at \$75/engine hour, tow activity takes priority over retrieves. With two Pawnees this isn't really an issue.

The other critical bit is the readiness of skilled XC pilots to share their knowledge with newbies. When I was getting started, I was in awe of the guys who left at 1pm and came back when the sun was low. When I got over my fear of sounding like what I was, a newbie, I found them all to be very helpful. I hope the activity last season leads to more XC flights in club ships this coming season as I believe that's critical to the health of the club and

Day 1			Scoring			Day	Day	Total	Total
Name	Sailplane	Dist.	Bonus	Dist.	Penalty	Score	Rank	Score	Rank
Bonnière, Nick	ASW-20	ST	282.1	28.2	279.3	1000	1	1000	1
Bégin, Bruno	LS4	CR	217.9	21.8	227.7	10	805	2	805
Hildesheim, Roger	SZD-55	AT	123.8	12.4	128.0		458	4	458
Werneburg, Ulli	ASW-24	MZ	214.1	21.4	221.4	10	783	3	783
Séguin, Gilles-André	DG-200	GC	69.7	7.0	72.8	10	251	5	251
Day 2						Day	Day	Total	Total
Bonnière, Nick	ASW-20	ST	247.3	24.7	244.8	1000	1	2000	1
Bégin, Bruno	LS4	CR	188.3	18.8	196.8	40	764	3	1569
Hildesheim, Roger	SZD-55	AT	184.5	18.4	190.7		779	2	1237
Werneburg, Ulli	ASW-24	MZ	0	0	0		0	5	783
Séguin, Gilles-André	DG-200	GC	98.1	9.8	102.5		419	4	251

the sport. Does your club promote XC? What works for you?

Brent Sullivan

I've belonged to clubs where cross-country in a club ship entails all sorts of advanced planning, meeting of various and sundry requirements and endorsements from instructors, ad nauseum. My current club has quite a different culture. Except for instructional flights and early solos, the majority of our flights have some cross-country element to them. I am defining 'cross-country' as at least getting out of gliding range of the home airfield. No hoopla involved.

We really didn't develop this culture as a conscious decision. It just seemed to develop on its own. Most of our instructors fly cross-country so they train their students that way from the beginning. The terrain surrounding our airfield is relatively benign, at least in some directions and we have other airfields close by (closest is 11 miles). Our club ships are relatively low performance: Blanik L-23, K-8, Ka6. We've had occasional landouts, usually at other airports. No damage or other problems so far (with the club ships anyway). I think this culture of cross-country flying is what keeps our club members enthusiastic and makes our little club viable. Fly safe.

Wallace Berry

Here in the USA a majority of SSA members have probably never left reach of the home airfield. Cross-country is seen by many clubs and instructors as 'something scary' that only those people with their own ships try. So, the answer to your question is, yes, for many they enjoy tobogganning.

Kevin Christner

And there is the difference! If the instructors fly cross-country there will be talk about XC and how to do it safely. If the instructors never fly cross-country the culture will say this is a scary, dangerous proposition best left alone and all sorts of psychological and other barriers will be erected. In my opinion, this is the reason soaring is in decline; after three or four years hanging out within three or four miles of the home runway, it becomes boring.

Cross-country doesn't mean racing. It can mean very conservative flying speeds hardly ever above best L/D, but at least the pilot becomes something of an explorer and gets to look at a wider territory. Tiptoeing over new ground will help retain the exhilaration of a pilot's early solo flights. I recommend it!

Wallace

The club I'm in has had some problems with landout damage in unplanned XC flights. Maybe that's the difference.

Equally as likely I guess, is that few of our instructors fly XC. That makes XC flight a 'special' kind of flying in our organization. A pilot who doesn't intend to fly XC, but sud-



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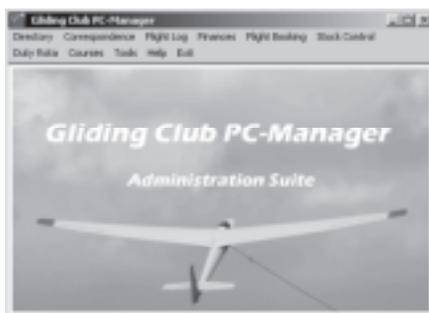
denly finds himself out of gliding distance with no 3400 foot mowed field in sight has little knowledge or training in what to do.

I'm not saying that the instructors don't teach field selection, short landing techniques, and the like — they do. I do think there is an implied message that those skills are optional. The mentality seems to be "get your ticket and then focus on those skills if you get tired of hanging around the field".

Brent

New club management software

The *Gliding Club PC-Manager* is a software package developed for the management of gliding clubs. One of the main objectives during the design of this system was to produce software that would be easily adaptable to organizations of any size and that would not require intervention from its developers for maintenance purposes. This is a paramount requirement as the software is tar-



geted to the gliding market worldwide. The result is a system that is flexible and easily adaptable to different club structures and to any club size. It incorporates functions covering the areas of finance, operations, administration, management and marketing.

This software has been adopted by the Lasham Gliding Society, the largest gliding centre in Europe, a fact that, by itself, tells a lot about what this application can do.

Finance Complete finance facilities incorporating Sales Ledger, Flying Accounts, GST Control and Flight Costs. Accounts can be set up for revenue generated from all different services (winch launches, aerotow, soaring, hangarage, membership type, etc). Various reports may be output, such as:

- Financial transaction on period
- Sales summaries
- Tax demonstrative for period
- Financial audit trail
- Financial summary by analysis code
- Account balances
- Composition of charges

In addition, on-line financial inquiries driven by parameters allow the user to define the criteria for selecting financial transactions within any given period. Any financial information can be extracted from the system's financial journal through this facility.

Directory The directory is a file to store details of members, visitors and organizations

such as other clubs or suppliers. It contains a wide variety of information, organized by areas of relevance with easy access to the user. Includes search and filter facilities.

Correspondence Correspondence can be generated automatically when pre-defined criteria are met and can be viewed on screen, then printed or e-mailed.

Flight log Totally customizable. Separate flight logs for gliders, tugs, and powered flights. Flight cost calculation is performed at data entry time.

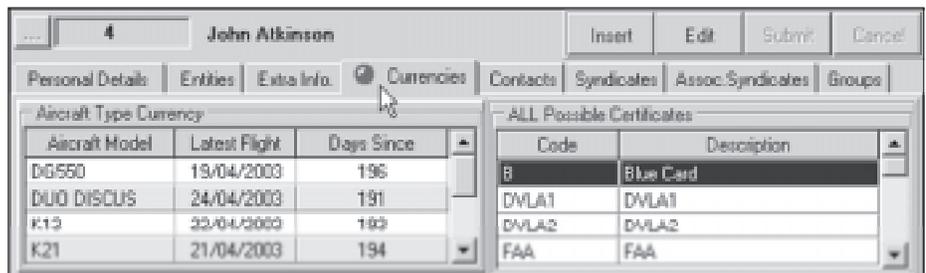
Flight costs The system allows the calculation of flight costs, subdivided by launch and soaring, according to several parameters, including: aircraft, flight time, type of mem-

bership, date, time of day or day of week. The pricing structure is parameterized and can be changed by the users as necessary.

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A complete description and a free, full working evaluation version can be downloaded from the developer's website at <www.IDEALmicrosystems.com>. The package costs £585 which includes all functions except Launch-Point facility (£280) and Remote Enquiries (£395). These two modules are sold separately. Unlimited technical support via e-mail or phone is included in the price. ❖



Sample output – Currency control warns when a pilot is not current with one or more certificates.

Letters etc ... from page 5

to Edgewater to Canal Flats and back home — totalling 160 km or so, and never more than 10–20 km from an airfield that guarantees a safe landing spot. And those spots are airfields, so a towplane retrieve is a possibility.

The prairies offer the potential of limitless landing options, at least on the surface. But fields may have fences or power wires across them, be booby-trapped with hay bales, or have other hazards. New XC pilots are faced with having to make complex assessments to

ensure a safe choice of landing spot, and may have to contend with the hassle of getting their glider out of the field by hand. So, it's not clear to me that prairie areas are always safer than mountainous areas for landing.

Numerous pilots have learned how to fly sailplanes at Invermere, and have successfully learned to fly cross-country there. By having a selection of safe airfields available within easy gliding distance, and reliable easy-to-locate lift sources along the range, those new pilots can rack up the cross-country kilometres while honing their speed-to-fly strat-

egies that will allow them to fly further as they develop. The proof is in the pudding: in 2003 in the Canadian On Line Contest, there were more flights in all pilot categories from Invermere than the Cu Nim site. There were also Junior flights from Pemberton, another mountainous area with landings made at airports. My conclusion is that Invermere is a good place to learn to fly cross-country in a sailplane. Similarly, it's a good place to learn to fly hang gliders and paragliders cross-country, and why pilots come from around the world to do so.

Stewart Midwinter



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the key to future club survival

from page 4

BGA research shows ... "A 2% reduction in wastage from members leaving would result in overall membership growth. The most efficient method of halting the decline in numbers is by concentrating on retaining members rather than by expensive recruitment campaigns followed by poor membership retention".

See the SAC Roundtable posting 02/16/02 by Dr. Soar to the effect that if we get 500 new members now, half will be gone this year, the other half next year. Given the chaos at most flight lines and lack of member participation in club work, it really seems that the issue is one of improving local club management, rather than attracting a huge influx of new members, who will not be adequately serviced, given that most clubs struggle to service the members they have. Required readings include: Al Schreiter in *free flight* 2/03, Dan Dawson in *free flight* 06/01, and Neil Rathbone in *Sailplane & Gliding*, Oct/Nov 02 on "Club Survival".

SAC can provide useful resources by being the location for a special e-mail address for interested persons who would then receive an info package. SAC could develop and distribute info packs to clubs containing presentation material for shows and meetings or for distribution to guest flights, and can be a source of templates for brochures, websites, etc. We hope to collect data to provide best practices business models to encourage clubs to improve their efficiency and their image. John Roake plans to have a booklet on club survival available for us to distribute in early 2004. Initially, the most effective ways of attracting and retaining members appear to be at the club, not the national level.

The clubs need to be made into happy, pleasant places to be, where members and guests can expect and receive prompt, efficient service. That means getting more than one flight per day, getting solo or licensed in an expeditious manner, getting the guest flights done promptly without upsetting or inconveniencing club members, etc. Heavy fee increases are turning off some members; part of managing a club effectively is budgeting for maintenance and fleet improvement issues to avoid cash crises.

Traditionally, soaring has involved self-directed people who wish this activity to seek out the sport for themselves. They involve themselves in the club structure including the wide variety of club maintenance and management tasks required to produce flying time. At the same time they thereby meet their own flying needs. The structure of the sport has evolved over six decades to suit this approach. Clubs have formed out of like-minded people getting together and, with their own effort and resources, building the opportunities to go flying at whatever level to which they collectively aspired.

Times have changed, people are now consumers. Their demand on gliding is that it shall be available immediately on consumer impulse, require no time input beyond direct flying time, require no financial input beyond direct flying charges, require no special attention or effort on the part of the pilot while all risks and obligations are absorbed by the gliding system. How creative in meeting consumer demand we can be is a decision for each individual club. It may wish to structure itself to those consumer demands, possibly by a two-tiered fee system; those who help out pay less, those who don't, pay more.

People are disillusioned with gliding from a vast variety of viewpoints. The casual participant doesn't secure what he expected, and quits. The student isn't progressing at a satisfactory rate from their point of view, and quits. The pilot is not rated by his club as highly as he sees himself, flies less, and gets less enjoyment than if he were encouraged to progress to cross-country, singles, or whatever. The senior instructor or grounds person or bookkeeper is chained to an unchanging long-term volunteer task which has become onerous. Disillusionment occurs at every level, and at various times. Retention of members in our clubs will be enhanced where mechanisms are used to deal with disillusionment as and where it occurs. ❖

FAI badges

Walter Weir

3 Sumac Court, Burketon, RR2, Blackstock, ON L0B 1B0
(905) 263-4374, <waltweir@ca.inter.net>

Reminder #2 – it has been three years since the OO list was last renewed. It is time for all club Senior Official Observers or CFIs to resubmit a list of the active OOs in their clubs. *This renewal list is mandatory for OOs to retain their privileges for 2004.* E-mail your list to me (above).

The following badge legs were recorded in the Canadian Soaring Register during the period 6 Sept to 18 Nov 2003.

GOLD BADGE

310 Douglas Smith Vancouver

SILVER BADGE

975 Patricia Olivier-Martin SOSA
976 Michel Bohemier Gatineau
977 Brian Allen Vancouver
978 Martin Dennis Pemberton
979 Martin Detering Montreal
980 Miguel Londono York

DIAMOND DISTANCE (500 km flight)

Martin Denis Pemberton 502.4 km DG-202/17 Invermere, BC

DIAMOND GOAL (300 km goal flight)

Douglas Smith Vancouver 393.7 km ASW-19 Invermere, BC
Martin Dennis Pemberton 302.5 km DG-202/17 Pemberton, BC
Matt Kazakoff Rockies 302.1 km ASW-19 Invermere, BC

DIAMOND ALTITUDE (5000 m gain)

Mark Westphal Regina 5470 m DG-400 Cowley, AB
Terry Hooper Regina 5650 m Std Jantar Cowley, AB

GOLD ALTITUDE (3000 m gain)

Terry Hooper Regina 5650 m Std Jantar Cowley, AB
Brian Allen Vancouver 3630 m DG-300 Hope, BC

GOLD DISTANCE (300 km flight)

Douglas Smith Vancouver 393.7 km ASW-19 Invermere, BC
Matt Chislett Winnipeg 300.9 km Std Cirrus Invermere, BC
Martin Dennis Pemberton 302.5 km DG-202/17 Pemberton, BC
Matt Kazakoff Rockies 302.1 km ASW-19 Invermere, BC

SILVER DISTANCE (50 km distance flight)

Patricia Olivier-Martin SOSA 57.2 km PW-5 Rockton, ON
Michel Bohemier Gatineau 62.0 km L-33 Pendleton, ON
Brian Allen Vancouver 51.1 km DG-300 Valemount, BC
Martin Dennis Pemberton 109.1 km DG-202/17 Pemberton, BC
Martin Detering Montreal 61.8 km DG-303 Hawkesbury, ON
Wayne Eaves York 54.2 km RS-15 Arthur, ON
Terry Hooper Regina 74.5 km Std Jantar Strawberry Lks, SK
Miguel Londono York 62.1 km 1-34 Arthur, ON

SILVER ALTITUDE (1000 m gain)

Pascal Hayet Quebec 1500 m Grob G102 St. Raymond, QC
Patricia Olivier-Martin SOSA 1060 m PW-5 Rockton, ON
Erich Zimm York 1890 m Grob G102 Peoria, AZ
Brian Allen Vancouver 1500 m DG-300 Valemount, ON
Martin Dennis Pemberton 2340 m DG-202/17 Pemberton, BC
Miguel Londono York 1100 m 1-34 Arthur, ON
Marc Arsenault Outardes 1210 m PIK-20B Bromont, QC

SILVER DURATION (5 hour flight)

Jeremy Sawyer York 5:17 h 1-26 Arthur, ON
Pierre Moreau Outardes 5:10 h L-33 Blanik Bromont, QC
Robert Toupin Outardes 5:04 h ASW-24 Bromont, QC
Claude Monteilh Outardes 5:51 h Pilatus B4 Bromont, QC
Patricia Olivier-Martin SOSA 5:14 h PW-5 Rockton, ON

SAC records

Roger Hildesheim

49 Maitland Street, Box 1351, Richmond, ON K0A 2Z0
(613) 838-4470, <Lucile@istar.ca>

The last batch of Australia record claims have been approved and are listed below. Another interesting note should be made regarding some flights flown by Tim Wood this summer. He made a few flights that crossed the threshold between southern and eastern Ontario. One of these included a start at York Soaring and landing at Iroquois Airport on the St. Lawrence River. Now if someone were to fly from eastern Ontario/Quebec into southern Ontario! Food for thought (and planning) for those cold winter nights.

The following record claims have been approved:

Pilot Pat Templeton
Date/Place 6 Jan 2003, Corowa, Australia
Record type Out and Return distance, Club, Citizen
FAI Category 3.1.4e
Sailplane type LS8-18, VH-ZBI
Distance 525.5 km
Task completed Corowa, Hilltop, return
Previous record Citizen: Tracie Wark, 441.4 km, 2002

Pilot Spencer Robinson
Date/Place 7 Jan 2003, Corowa, Australia
Record type 750 km triangle speed, Open & Club, Citizen
FAI Category 3.1.4h
Sailplane type LS8-18, VH-ZBI
Speed 118.7 km/h (103.6 km/h Club)
Task Corowa #23, Galong, Naradhan, Corowa #23
Previous record Open: not claimed
Club: Dave Springford, 94.6 km/h, 2002

Pilot Spencer Robinson
Date/Place 7 Jan 2003, Corowa, Australia
Record type Triangle distance, Club, Citizen
FAI Category 3.1.4f
Sailplane type LS8-18, VH-ZBI
Distance 655.9 km
Task Corowa #23, Galong, Naradhan, Corowa #23
Previous record Not claimed

The following record has finally been approved but was superseded the next day in both Open and Club by Tracie Wark (already approved). I believe that this qualifies Pat for a new record category, the shortest time for holding a record!

Pilot Pat Templeton
Date/Place 6 Jan 2003, Corowa, Australia
Record type Free Out and Return, Open & Club, Citizen
FAI Category 3.1.4b
Sailplane type LS8-18, VH-ZBI
Distance 602 km (525.5km Club)
Task Corowa, Hilltop, return
Previous record Open: Spencer Robinson, 529.9 km, 2002
Club: Spencer Robinson, 462.6 km, 2002

Brian Allen Vancouver 5:30 h DG-300 Hope, BC
Martin Dennis Pemberton 6:27 h DG-202/17 Pemberton, BC

CBADGE (1 hour flight)

2778 Catherine Murphy York 1:19 h 2-33 Arthur, ON
2779 Pierre Gagnon Quebec 1:27 h Blanik L-13 St. Raymond, QC
2780 Patricia Olivier-Martin SOSA 5:14 h PW-5 Rockton, ON
2781 Brian Allen Vancouver 4:49 h DG-300 Valemount, BC
2782 Martin Dennis Pemberton 6:27 h DG-202/17 Pemberton, BC

Trading Post

Personal ads are a free service to SAC members (give me name of your club). \$10 per insertion for nonmembers. **Send ad to editor.** Ad will run 3 times unless you renew. Tell me if your item has been sold sooner. Subject to some editing for length (usually 6 lines max).

single seat

Tern, CF-BWA, 195h, basic instruments, enclosed metal trailer, chute, all drawings & manuals, one man rigging dolly. \$5500 obo. Walter Mueller (780) 539-6991 <walterm@telusplanet.net>.

1-26A, C-FKPP, #59, 1600h. Recent overhaul incl. tear-down of fuselage and new tubing as req'd, epoxy primed/painted, new fabric on fuse and flight controls. New cables, hardware, etc. Open trailer, chute. Delivery part way possible. US\$7000 obo. Jim Cress (204) 832-3761 <jcress@mts.net> or Matt Chislett (204) 254-3767 <mbc@autobahn.mb.ca>. See ship at <www.autobahn.mb.ca/~mbc/C-FKPP.htm>.

K6E, #4050, C-GTXP, build 1966, approx 950h, O2, Cambridge vario, Security chute, handheld GPS and radio, polyurethane finish, enclosed metal trailer, \$12,500 obo, <www@sbcglobal.net>, 408-732-9289.

1-36, 900h. Transceiver and electric vario, no trailer, will paint glider to your specifications. Chris Eaves, <mail@xu-aviation.com>, (519) 452-7999.

Std Jantar, SZD-41a, C-FLZS, 1205h, all ADs done, basic instruments, final glide computer (LX4000), Winter ASI, metal trailer, ATR 720 radio. US\$20,500 obo. Fred Hunkler eves/weekends (519) 220-0079, <fred@hunkeler-online.com>.

Astir CS77, C-GGHT, approx 1400h. Great club ship, no damage hist, Cambridge Elec vario, 760 chan radio, trailer. Asking \$25,000. At SOSA. Dave Springford, <dave.springford@attcanada.ca>.

Std Cirrus, C-GJRW, self-rigging, covers, tinted canopy, Eberle trailer. Send for equipment list. Asking US\$19,000. Hans Berg <hberg@mnsi.net> or (519) 734-8922.

Std Libelle, CF-QJS, 877h. Basic instruments plus radio, audio vario, computer, encl. trailer, wing and canopy covers, tail dolly. All ADs done. Fresh annual.

Asking \$19,000. Doug Munro, 416-232-6515 days, (416) 466-1046 eves, <munro@interlog.com>.

LS-4, 1983, 1376h, full instruments with Filsler LX-4000, Sage vario, Edo-Air 720 radio, Cobra clamshell trailer, tail dolly, US\$25,900 (negotiable). Contact Carsten (905) 465-0750, <susanaycarsten@aol.com> or Paul (905) 765-9809, <pault2thompson@aol.com>.

DG-202/17, C-GVRR, 1981, 700h, 15m with 1m tip extensions. Current CofA, always kept in a Minden metal trailer. Cambridge glide computer, Dittel radio, O2, Strong chute. Excel. flying qualities, with 17m extensions perf. comparable to ASW-20. (780) 434-8859 or <dmarshen@shaw.ca>.

Super HP-18, as tested by Dick Johnson (SOARING magazine, July 2003). Willing to sell without instruments and radio. Make offer above \$27,000. Complete package details: <soaridaho.com/Schreder/Trading_Post/SHP-18_Ad.htm>. Udo Rumpf, e-mail <urumpf@reach.net>, (613) 475-4009.

Kestrel-19, CF-FKQ, 1004h, Varicalc/Winter varios, ATR760 radio, G-meter, ICOM A21 handheld radio, Chairchute, Winter baro, camera, customized factory trailer, wing dolly & tow bar. 44:1. Always hangared. Docile. Tail chute for short field landing. Asking \$39,900. Dave Belchamber, days (819) 773-6267, eves (613) 825-1970 <dave.belchamber@bell.ca>.

ASW-20, C-GYMZ, 1981, 2100h, Varicalc GPS/computer/recorder, 760 ch radio, ELT. Security 150 chute. Cobra trailer, 1989, tow out gear. \$45,000. Nick Bonnière, <bonnifut@magma.ca>.

ASW-20C, C-GEXR, #20706, 1984, 360h, excellent cond, Komet trailer, L-NAV, GPS-NAV, LCD display, Sage CVA Vario, Dittel FSG-60M, Winter ASI, Kollsman altimeter, digital clock, blue tinted canopy, tow-out gear, O2, wing/canopy covers, chute. Never damaged or modified, always stored in trailer in hangar. \$63,000. Ulli Werneburg, (613) 826-6606, <wernebmz@magma.ca>.

two-place

Lark IS28-B2, C-GVLI. #67, 1800h, basic instruments, Cambridge vario & repeater, Varicalc flight computer, Alpha-100 radio, g meters, professionally built open trailer. 20 year inspection/overhaul in '99 at 1585h. \$32,000 (US\$20,500) obo. Matt Chislett, (204) 254-3767, <mbc@autobahn.mb.ca> or <http://www.autobahn.mb.ca/~mbc/Lark%20advert.htm>.

K-7 C-FKZS, 727h. Fully restored: fuselage 1996, wings 2001. Ceconite 102 with dope used. Basic instruments with TE and MacCready ring in front. Radair 10 radio. Open trailer in good running cond. Fuselage dolly and wing stands. \$13,500. More info/pictures: contact Keith (306) 249-1859 or Don (306) 763-6174, <k.andrews@sasktel.net>.

2-225G, 1300h, excellent cond, basic instruments. Very forgiving aircraft. Great starter, can be seen at Erin Soaring. Daws Campbell, (705) 686-3672 or e-mail <jacee957@amtelecom.net>.

misc

Citabria, 1977, 150hp, 3900h, 1050h SMO on engine. New cylinders, metal spar, fabric, airframe o'haul, painted in 96. No damage. Good cond, nice exterior. At Erin Soaring since new, very strong engine. Recent service expense exceeds market value, so good buy at this time. Asking \$49,000. Dennis Pizzardi, (905) 451-0732 evenings, <dpizzardi@chartwell.ca>.

ASK-14 motorglider, 980h, engine 147h. Good cond, metal trailer, radio and O2. Launch for pennies. \$12,500 obo. Willi Terpin, (250) 365-8378.

Chairchute 150. Manu. July 89. Last repack 92. Owned since new by Swan Valley Soaring. Matt Chislett, <mbc@autobahn.mb.ca>, (204) 254-3767.

Yaesu vxa-100 handheld aviation transceiver (118-136MHz). New (still in box), c/w nicad pack, wall charger, helical antenna, headset cable. \$240.

base scanner radio, bc855 xlt (rfb), 50 chan. New (still in box), includes aviation freqs. \$145.

pro44 handheld scanner radio receiver (Radio Shack) \$45 used. Richard Sheridan, (204) 237-1487 H, (204) 237-6655 W, <ve4esx@rac.ca>.

magazines

GLIDING & MOTORGLIDING — world-wide on-line magazine for the gliding community. Edited by Gillian Bryce-Smith, <www.glidingmagazine.com>.

SOARING — the monthly journal of the Soaring Society of America. Subscriptions, US\$43 price includes postage. Credit cards accepted. Box E, Hobbs, NM 88241-2100. <info@ssa.org>. (505) 392-1177, fax (505) 392-8154.

GLIDING KIWI — Editor, John Roake. Read world-wide with a great reputation for being first with the news. US\$33. Personal cheques or credit cards accepted. NZ Gliding Kiwi, 79 Fifth Avenue, Tauranga, New Zealand. <gk@johnroake.com>

SAILPLANE & GLIDING — the only authoritative British magazine devoted entirely to gliding. Bimonthly. US\$45 per year airmail, US\$35 surface. <beverley@gliding.co.uk>

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Schempp-Hirth Sailplanes, glider importation and brokerage, **Strepla**, and **Winpilot**. Ernst Schneider, (250) 270-9009, <ews@ews.ca>.

Sportine Aviacija LAK sailplanes <www.lak.it>. Exclusive dealer for Canada, Nick Bonnière <bonnifut@magma.ca>. LAK-17a - 15/18m flapped; LAK-19 - 15/18m standard; LAK-20 - 2-seat 23/26m Open.

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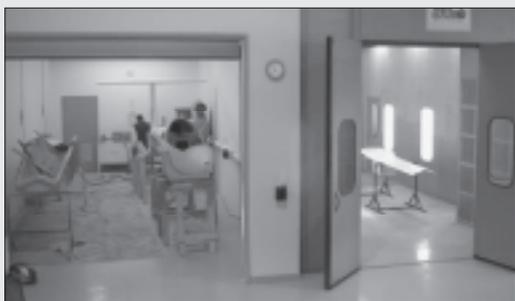
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free-ft@agt.net
Clubs/Cowley info: www.soaring.ab.ca

CENTRAL ALBERTA SOARING CLUB
Innisfail A/P, AB
Brian Davies (403) 318-4577 H
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COLD LAKE SOARING CLUB
CFB Cold Lake, AB
Randy Blackwell (780) 594-2171
club: (780) 812-SOAR
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www.clsc.homestead.com

CU NIM GLIDING CLUB
Black Diamond, AB
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(403) 569-4311 B
www.soaring.ab.ca/free-ft/cunim

EDMONTON SOARING CLUB
N of Chipman, AB
John Broomhall (780) 438-3268
www.freenet.edmonton.ab.ca/soar/

GRANDE PRAIRIE SOARING SOCIETY
Beaverlodge A/P, AB
Terry Hatfield (780) 356-3870
www.soaring.ab.ca/free-ft/gpps/home

Pacific Zone

ALBERNI VALLEY SOARING ASSN
Port Alberni A/P, BC
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www.island.net/~rambo/

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BULKLEY VALLEY SOARING
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CANADIAN ROCKIES SOARING CLUB
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PEMBERTON SOARING
Pemberton A/P, BC
Rudy Rozsypalek (604) 894-5727
www.mountain-inter.net/soaring/

SILVER STAR SOARING ASSN
Vernon A/P, BC
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VANCOUVER SOARING ASSN
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