6/2000
Dec/Jan

free flight · vol libre

PRIORITIES

David McAsey

Badges, Trophies, Records: go for 'em !

I'm David McAsey, SAC Zone director for Alberta and vice-president of the Alberta Soaring Council. Like the other SAC directors, I have been asked by our president, Richard Longhurst, to write a president's column for *free flight*. Unlike those of the other directors, my soaring achievements have been minuscule, but my enthusiasm for the sport is as great as anyone's. I fly a 36-year-old Ka6CR, almost three decades younger than I am.

Badges and Records This summer was an exciting one close to my home. Two people I know well, Trevor Florence and Tony Burton, set new records early in the season at Invermere. A third, a Torontonian named Tim Wood, also visited the BC Interior and earned his Diamond distance there. These successes helped motivate me to achieve and document two legs of my Silver C badge. This spring, my new CFI gave his blessing to my flying cross-country and I prepared for a badge leg. A few weeks after a failed attempt, strong lift brought me to the altitude required for the altitude leg of the badge. It then virtually hurled me through the course for the required 50 km, actually a fast (for me) but meandering journey of nearly 100 km.

What's the point about this story of such a small achievement? It was worth the effort! Let's hope that instructors and people like the Canadian Advanced Soaring group continue to encourage pilots to try for badges, trophies and records as soon as they are eligible. If that happens, our national association will retain more and happier members.

SAC Trophies The cut-off for SAC awards applications used to be 31 December. Since it seems hard for many to meet the deadline, this year it will be extended to 10 January. There are trophies for both experienced and low-time pilots detailed on the SAC website under "Documents". Beyond trophies, certificates of achievement are awarded for noteworthy soaring achievements. They can be awarded to licensed or unlicensed pilots. Since they don't require documentary proof beyond a sponsoring member's statement, I'd appreciate a review by instructors and CFIs of pilot achievements in their clubs that may merit national recognition.

Safety Audits If you don't know whether your club has completed the SAC safety audit (the form is on the SAC website), please ask your president and CFI now. The audit is a great opportunity for pilots of all experience levels to contribute substantially to club safety. On the negative side, if clubs haven't completed and submitted their audits before the end of the year, it could really hurt their pocketbook for years to come in terms of insurance rates for both club and privately owned ships.

Peter Corley Memorial Scholarship Congratulations to Alexander Rudy, an instructor from SOSA, who has been awarded the $2,300 Peter Corley Scholarship for the year 2000. Alexander is an engineering student at Ryerson Polytechnical University in Toronto. This year there were four scholarship applicants. The board plans to make the award better known in 2001, and increase the number of candidates.

2001 Happy New Year, and best wishes for dry weather and great soaring in 2001.

Bonjour Mon nom est David McAsey, directeur de la zone Alberta, vice président de l'Alberta Soaring Council et ex résident de Montréal par surcroit. Je suis un adepte relativement récent du vol à voile et pilote un Ka6CR de 36 ans. J'invite mes amis vélivoles à venir nous visiter en Alberta et à l'intérieure de la Colombie Britannique.

Trophées Nouveau cette année ! La date de tombée pour soumettre des candidatures pour les divers trophées a été reportée au 10 janvier 2001. Les documents de mise en nomination sont disponibles sur le site de l'ACVV sous documents. Je demande la collaboration des présidents et chefs moniteurs pour s'assurer que tous les membres éligibles, expérimentés novices, soient nominés pour ce reconnaissances. C'est une bonne façon de mousser la motivation et l'intérêt pour votre club et le vol à voile. ⇨ **p19**

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Cover
Looking forward to spring! Keith Hay flies his Mini-Nimbus east of Black Diamond, Alberta
photo: Gerald Ince

The decentralized nationals

A Canadian cross-country soaring ladder

Dave Springford, CAS president

YOU MIGHT WONDER what a cross-country soaring ladder is, quite simply it is to encourage pilots to fly cross-country. The Bald Eagle might define it as a tool to help you fly cross-country (I can see the images he conjures up as he emerges from the workshop with a ladder over his shoulder, a toolbox in his hand and a clever grin on his face). While meant in jest, this is exactly what a soaring ladder is, what better tool is there to help you improve your skills than actually going out and flying. The rationale behind the ladder is threefold: to encourage cross-country soaring at the club level in Canada, to stimulate competition between individuals and clubs, and to document the amount of cross-country soaring accomplished during the season. This last point may be important in the never-ending battle for access to airspace with Transport Canada.

Two years ago, Canadian Advanced Soaring (CAS) implemented the Decentralized National Competition. This competition has no fee and is open to all SAC members. It was started as the Ontario Soaring Ladder by Ian Grant and is modelled after the very successful British Ladder and German Decentralized competition. I noticed while reading an issue of *Sailplane & Gliding* that there are over 200 pilots registered in the British Ladder. Over the last few years CAS has been negligent in promoting the ladder and as a result there have been very few entries. I hope that by writing this article and explaining the ladder we might get greater involvement in Canada.

Flight documentation is not required to enter the competition however, the top pilots in each class will be required to provide proof of their flights before being declared the class winner. Documentation may consist of either IGC files, or photographic evidence. Flights do not have to be declared beforehand, although there is a scoring bonus for declared flights versus PST type flights. There are also scoring bonuses for completing FAI badge legs or Canadian records within the competition. The scores are calculated using the SAC glider handicaps. One point is awarded for each handicapped kilometre flown. Points are also awarded for handicapped speeds in excess of 70 km/h. Each pilot may enter as many flights as they desire but only their four best flights will be counted towards the final result. Flights may be submitted at any time throughout the year, however pilots are encouraged to enter their flights as they complete them so that results can be published on the CAS website and updated weekly. Starting next year, flights will have to be submitted to the administrator within 30 days to help encourage the timely submission of flights and allow running scores to be published on the website.

The ladder is currently divided into three classes:

- *Novice* — open to all pilots who have not completed their 300 km badge leg at the beginning of the competition year. Duration, height gains and distance/speed flights can be entered in this class.
- *Weekend* — open to all pilots, but only flights flown on Saturday, Sunday or provincial/national holidays may be submitted.
- *Open* — allows flights from weekdays as well as weekends. Only distance/speed flights may be entered in the weekend and open classes. You may enter either or both of the Open and Weekend class. All flights submitted for the ladder must originate in Canada. Flights flown during either national or provincial competitions are ineligible for the ladder.

The ladder is administered by Alain Berinstain of the Gatineau Gliding Club under the auspices of CAS and runs from 1 Jan to 31 Dec each year. To join the ladder, simply send the following information to Alain:

1 Name.
2 Club.
3 Glider type, contest letters and registration.
4 The competition class you are entering (Novice, Weekend or Open).
5 Date of flight.

⇨ p18

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), or send a fax. 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.

Material from *free flight* may be reprinted without prior permission, but SAC requests that both the magazine and the author be given acknowledgement.

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

Deadline for contributions:

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

L'ASSOCIATION CANADIENNE DE VOL À VOILE

est une organisation à but non lucratif formée d'enthousiastes et vouée à l'essor de cette activité sous toutes ses formes, sur le plan national et international. L'association est membre de l'Aéro-Club du Canada (ACC), qui représente le 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 vélivoles 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 vélivoles bienveillants. Leur contenu n'engage que leurs auteurs. Aucune rémunération n'est versée pour ces articles. Tous sont invités à participer à la réalisation du magazine, soit par des reportages, des échanges d'idées, des nouvelles des clubs, des photos pertinentes, etc. L'idéal est de soumettre ces articles par courrier électronique, bien que d'autres moyens soient acceptés. Ils seront publiés selon l'espace disponible, leur intérêt et leur respect des normes de qualité du magazine.

Des photos, 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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letters & opinions

P.E.T. remembered

Back in the late '60s, being one of his constituents, I had the opportunity to meet Prime Minister Trudeau. We exchanged a few pleasantries and on the spur of the moment I invited him for a glider flight at Hawkesbury. He looked at me intently and after a few moments, with an amused expression, said that he had already been to the "other gliding field". In fact he remembered spending considerable time sitting on the grass and never getting a flight.

He explained that this happened well before he became PM. Apparently the conditions were superb and pilots were too busy in the single-seaters to take him up. He added that the mosquitoes kept him company and were among the biggest he had seen.

He had been invited out by a "lady who worked in the parliament" and had no transport of his own. (I suspect that it was Shorty Boudreault's sister who took Trudeau to Pendleton as I believe she worked for the Speaker of the House.) The two-seater at the time was probably the flat-topped LK-10, CF-ZBF. Elvie Smith gave me a checkflight in it in 1956. And yes, the mosquitoes were big at Pendleton.

Trudeau's response was very smooth when I tried to assure him that he could count on a flight at Hawkesbury. While he was still interested in 'experiencing silent flight', he thought that the logistics would be overwhelming. He went on to explain the broader aspects of it: "Even if they would let me go up in a glider it would require background checks of the people involved, RCMP swarming all over the place, at least two helicopters arriving from Ottawa, press running out of control, and spectators everywhere."

As he departed he turned and said, "I wouldn't wish this on anyone." Who could argue with that!

Hillar Kurlents, MSC

Flying the PW-6

I recently had the opportunity to fly both the PW-6 and PW-5 in Lisie Katy, Poland on 17 September, two days after the PW-6 had been certified (becoming the first non-test pilot to do so). A complete report on the test flights will be in the Jan or Feb editions of SOARING magazine. One of my objectives was to test the primary design criteria, that of making a high-fidelity trainer for the PW-5. I had two flights in the PW-6 and three in the PW-5 for comparison (obtaining my Polish PW-5 rating in the process).

The PW-6 is what it appears, a slightly enlarged PW-5. The fuselage is about a metre longer and the wing span 16.0m vs 13.44m (giving the same wing loading and glide ratio). The front cockpit is exactly the same: I could squeeze my 6'2", 220 lbs into it and have lots of clearance left for my knees under the panel. The aft cockpit is surprisingly roomy and is scaled to take a large pilot.

I commenced with a few spins. I managed to get it to actually enter a spin on one attempt out of four. The aircraft popped right out when the controls were centralized on the way to the prescribed positions for recovery. The same benign characteristics were evident for stalls. The aircraft thermalled nicely and was quite responsive. The handling in the circuit was gentle and predictable.

I later transitioned to the -5 and, after considerable advice that it would be more responsive than the -6, I was off. The aircraft turns on a dime and I was able to stick with what ragged lift there was on a windy blue day. The other two flights were short circuit flights. All-in-all I found that the difference between the PW-6 and PW-5 was less than the difference between your average trainer with and without an instructor in the rear. I think that the PW-6 has considerable potential — its price certainly makes it an attractive option.

Yves Bastien, MSC

Who needs wave?

A temporary Hollander visits Cowley

Robert Hellier

JULY 29 - DAY 0 My *Air Transat* flight from Schiphol to Calgary, scheduled to arrive at 1800, is three hours late, ruining my chances of making the 3.5 hour drive to Cowley airfield before sunset. Adding insult to injury, I further discover that the Airbus has taken my luggage on to Vancouver. Groan!

Lost Luggage is sympathetic to my plight but doesn't know what to do with me. Normally they take the contact information of their luggage-less passengers, tell them to go home and expect their bags to be delivered to their door the next day. But I have no coordinates for Cowley and no "door" to deliver to since my home for the next nine days is the tent in my lost luggage!

Facing a long night, I grab a cheese'n bacon burger for some NRG and then alternate between being prone amongst the airport seating and on my knees at the *Air Transat* services desk. My prayers are answered at 2 am, however, by the returning Airbus, avec baggage.

Meanwhile, the drive south to Cowley looms ahead. This will take me along Hwys 22 and 3, skirting the eastern slopes of the Rockies – not that I will enjoy the view in pitch darkness! The big problem, however, is that I have no idea, besides some very rough instructions (north of Pincher Creek and the Oldman Reservoir, look for signs), where Cowley actually is.

Though I do find Pincher Creek, I never see anything else in the headlights of my rental car. No road signs, no reservoir, no anything but an eternity of winding Albertan country road. So what a surprise when, upon making a rash decision to turn off into an even smaller side road, my headlights pick out the distinctive shapes of several glider trailers in a field ahead. It's 0500 as I glide to a stop among a scattering of tents, camping trailers and vehicles. Not wanting to disturb anyone, I recline my seat and am instantly asleep.

July 30 - Day 1 I wake up after three hours, drunk from the 8-hour time difference between Holland and Alberta and wearing the same clothes I'd been wearing for the last 24. The view out my window, however, is awesome. What was previously only bleak tunnel views of dirt road is now a large green field, backed by darker rolling hills and the blue-ish wall of the Livingstone Range, generator of the famous Cowley Wave. All this is topped off by an enormously deep, big, blue sky, with a visibility that seems endless.

Within a few moments of stumbling out of my car, the campsite produces more groggy souls. After a double take of my vehicle and self, a guy comes over and says, "Robert Hellier, I presume?" It's Tony Burton, camp organizer and editor of this humble mag. Over the years I'd exchanged countless e-mails, had produced articles and illustrations for him, but this was the first time face-to-face. It was like seeing an old friend after many years.

The daily briefing begins at 0930 with Tony asking newcomers to identify themselves. There are several, but they had arrived before nightfall, exposing me as the one guilty of spraying his high beams through every window and tent in the camp. Ooops! But nobody really seemed to mind, and when I tell them it's my first time at Cowley and even in western Canada, they express amazement at my getting there at all. Several admit to not being able to find this remote location in broad daylight! So I get a round of applause at my dead reckoning skills. Cool.

The briefing continues with a recap of the previous day's flying. Three pilots recount their encounters with wave. Tony maxed out at 23,000 feet — certainly not his all-time best but it turns out to be the only day of the camp to produce significant wave. He also relates the forecast from the weatherman — a steady high pressure, with local fronts moving across to the north, possibly spreading some instability and, hopefully, thermal bearing cumulus throughout the region. These predictions remain similar for the entire camp, but only come true in the latter days.

Before these wondrous moments can be used, however, I need to suck up to a club willing to let me fly their ships. The best represented club is Cu Nim, sporting two venerable Blaniks, a Jantar and a Cirrus. With gentle pleading and promises of single malt whiskey, their instructors are easy prey. Having planned this trip for two years, I'm one eager beaver to get airborne. I'm aware of my potential for bad judgement given the lack of sleep and jet lag, but hey, there's an instructor in the back!

My flight that day starts a little after noon, the azure sky vacant of promised cu. Years of practice in marginal lift have prepared me well for these conditions. We struggle in the lower reaches above the Porcupine Hills, eking every foot out of the week thermals generated off the sunward slopes. The instructor is pleased but says I'll have to fly with their CFI, Rick Zabrodski, who's not due for a couple days. The prospect of spending the whole camp in a Blanik, with instructors occupying the rear perch, weighs large and heavy on my soul.

So I bide my time and enjoy getting to know everyone. There's about thirty people at the camp and, although almost sixty eventually register, the number onsite remains more or less constant, due to comings and goings of pilots and their families.

The day ends around 1800. Nothing significant has developed and everyone's happy to escape the endless sun

Robert Hellier

The wind turbine farm just southwest of the village of Cowley.

and 30+ heat for a meal and drinks in their temporary homes. By now my need for sleep is pretty overwhelming, but I want to properly establish my rhythm. I eat and join in the usual pilot gathering in the gathering dusk, listen to the yarns of Cowley oldtimers, the usual friendly rivalry between glider and towpilots and the howling of coyotes in the fields around us, before stumbling to my tent and deep slumber.

31 July - Day 2 The weather is the same. Hot, dry, blue, a light breeze not conducive to wave. It's blue sky thermals if we're lucky. My flight, with a second Cu Nim instructor, runs to a total of fifteen minutes, including the seven minute tow. But it's another opportunity to hone my skills behind a towplane after years of winching, another few minutes in a Blanik after years of fibreglass and another pleased instructor.

I spend the day on the flightline, helping out in every way I can. It's a great day for a tan, and at the end of the afternoon I join Glen and Russ, co-owners of a Std. Cirrus from out Winnipeg way, for a dip in the nearby Oldman River swimming hole. The cool water is down in a deep gully that sees a lot more flow in spring. But now it's just deep and fast enough to be interesting. Heavenly!

Returning to the field, my tummy rumbles and is immediately answered by Tony and his wife, Ursula, who invite me to dinner with one of the granddads of the Cowley wave, George Dunbar. We spend a delightful evening holed up at the local restaurant, sharing pizza, wine, anecdotes and laughter in hefty portions.

With Tony as designated driver we drive back to camp. I'm definitely in the comfort zone, a feeling further enhanced by the knowledge that I won't be spending the next week in my tent. A Cu Nim member, Kerry Stevenson, had brought his camper for the week but had to return home, offering me his now empty abode. So now I have a proper bed, a gas stove, and a fridge full of Big Rock *Traditional Ale* to enjoy. Dammit, this camp's getting better and better!

August 1 – Day 3 The forecast winds aloft suggest light wave. Instability is in the air and nobody needs a weatherman to tell them there's also a good chance of decent thermals.

I untie and DI the Blanik, giving me first dibs. The morning activity is very light with just a few circuits. Cu and thermals finally show up mid-afternoon, some distance west from the field towards the Rocks. I decide to add a "wimpy" sticker to my ticket (adding 1000 feet to my tow) that'll bring me to cu with sufficient height for a return journey. I'm off, with a third instructor, at 1447. It's pretty smooth, no problem maintaining position behind the towplane now. But as we near the mountains, the towplane suddenly jerks and thrashes, as if the pilot was having a fit. The word "rotor" forms in my mind just as my own craft does the same sick dance. A shriek of laughter emits from my mouth. This is coool, like a roller coaster ride! But there's no track, buddy, so try to keep the towplane in sight!

A minute later and we're into something smoother. Wave? The vario's not showing it so we hang on. Then we hit another more familiar bump — thermal! I release and turn into it, but it's turbulent. My instructor thinks it's interrupted by the nascent wave and rotor. I struggle with it, the vario ranging from 4+ and 4- in no order whatsoever. We can feel ourselves getting blown sideways and vertically. On a few occasions the air just quits over the wings and I have to nose down to prevent stalling. Nonetheless, the altimeter shows that we're winning. We climb slowly to ridge height where all is smooth again and 2+. I try to keep my distance from the ridge, ranging back and forth over the foothills below me. But the active part of this wave is very short and after a few minutes disappears altogether. We hit more weird thermal/wave/rotor junk, climb a few more metres and take stock. Noticing that cu is now forming closer to the field, we decide to head back.

In between we hit major sink, the one part of the wave that's working marvelously! At one point we're screaming down at 2000 ft/min but, as we near the field, bumps of thermals rise up to meet us and we're soon re-achieving the height we had lost so quickly.

In minutes we're near cloudbase and 13,500 feet but, this being a checkflight, the O_2 wasn't turned on. We head back to the range but at this height there's no downwash from the wave. A few weak thermals allow us to porpoise, maintaining our altitude in the crossing. We arrive at the south end of the range, across from the century-old field of limestone rubble called the Frank Slide. Once the side of Turtle Mountain, it collapsed one night in 1903 on the unlucky coal mining town of Frank.

But up above we have no sense of impending doom. We're high and happy as larks, though the famous wave continues to elude us. I penetrate into the range but can't find anything, so I give over to the man-in-back. He fares no better. We head back to the field, 15 kilometres to the east. Once again we hit the massive sink and again the thermals to take us back up to height. We try again along an almost identical route and again fail to connect. By now we've been airborne three hours and I'm feeling the combined results of jet lag, lack of sleep and exposure to sun. It's time to give some other people a chance to fly so we lose height with stalls, wingovers and steep turns, landing back at Cowley after 3:37 hours.

That evening, Cu Nim's CFI shows up and gives me some good news. If the checkflight is OK and if I pay the mid-

season, half-price club membership, I can solo in Cu Nim's Jantar. I do some arithmetic that night, comparing the "fly-all-you-want" membership fee against $40/hr for the Blanik ... the breakeven point is 14 hours. It's a done deal.

August 2 - Day 4 This day is all about impressing a CFI. So I untie and DI the Blanik once again, compliment the CFI on his recumbent bike and generally brown-nose. In the cockpit I verbalize my checks. In the air I call out heights, comment on every bird and aircraft within 20 kilometres and keep precisely in line with the towplane. Post-tow is reminiscent of my first Cowley flight, struggling in weak bubbles coming off the Porcupine Hills. We land 37 minutes later but it's not time I'm after — it's the CFI's signature besides an "OK for solo". But this guy's careful — he asks if I've done spin checks with a Cu Nim instructor. Nope. So he prescribes one more checkflight and promises I can take the Jantar after that. Just in time too as the Alberta provincial soaring competition starts tomorrow and the club's instructors say that I could enter myself with their ship. Yes!

August 3 - Day 5 This morning's briefing is good news/ /bad news. Unstable, relatively dry air promises good soaring but a cold front is building west of the Rocks and is expected to drop in on us tomorrow. The end of the contest should benefit immensely from the passing cold front however, with classic thermal conditions.

My final checkflight takes place in the morning, before the flightline gets too busy. That over with, I take the Jantar, C-GGFG or "Funny Girl", for a high noon solo to get a feel for the aircraft. Being a "real glider", it feels more familiar than the Blanik ever will. At 1400 the cu finally starts to pop around the field. The flightline assembles, but another Cu Nim member pulls Funny Girl out for a "an hour or so" before the competition begins. Well, he's got a right. After all, he trailered and towed it from Black Diamond.

Tony is the sniffer in his RS-15. The towplanes then make quick work of the rest of the field — except me — still waiting for Funny Girl. The starting gate is declared open but I resist the temptation to radio for Funny Girl's intentions. I wait impatiently as the competition pilots gleefully call out their heights and positions in this "friendly" contest. At 1630 Funny Girl finally lands. The pilot is happy as he hands the Jantar over to me. He loads my film into his turnpoint camera, while I pile maps, food and drinks into the cockpit. Strapping in, I do my checks and am off just a few minutes before 1700.

I release into a thermal and am soon at 10,000 feet. I zoom in for my start photo, just as another pilot radios five miles out for his final glide! Yeah, yeah. Hopeless maybe, but I'm determined to make a go of this. I try to zip around the turnpoints but many parts of the sky have matured or are falling out. I attempt a run to the Frank Slide thinking to get a boomer off the limestone. But my arrival there is met with zilch.

By now I'm too low to get back over the ridge. Below me is all rolling hills between the ranges. So I follow Highway 3 back into the valley where a landing site or thermal will hopefully present itself. At 1500 feet I circle a likely field near a truckers weigh station, ending up with a beeping vario as I inadvertently center a thermal! It's weak at first but steadily improves with height and soon I'm back in business.

At 1900 I do my final glide, pull up and find enough weak lift to remain airborne and sightsee for another hour. I land literally hours after everyone else has put away their ships. Tony whips my turnpoint card out of my hand to tally the score so he can post it before everyone goes to bed. It turns out I managed only 104 km and an average speed of 52.1 km/h. This, Tony points out, is less than the Jantar's stall speed. Yeah, yeah. But I still managed to come in 5th out of 10 competitors.

August 4 - Day 6 The promised front is slow in getting over the Rocks, but the sky overcast and threatening. Glen, Russ and I decide to take a day away from flying and try using our legs instead to climb some slopes leading up to Centre Peak, the highest point of the Livingstone Range. It takes a few sweaty hours but the view from above the tree line and just under the overcast is beautiful. We take the mandatory photos of each other posing as mountain men before heading back to Cowley.

The weather offers a pause to attend to personal needs in Pincher Creek. Busying myself in the laundromat, I fail to realize that something very strange is happening outside. When I do step out for air, the daytime sky is completely blotted by a huge greenish-black wall of rolling cloud descending off the Rocks. In a few moments the wind picks up, followed by lightning and a clatter as golf ball-sized hail streams out of the sky. I duck back inside but fear for my rental car sitting in the roadway, hail pounding it mercilessly. After a few minutes the hail mixes with a torrent of rain. The water level in the street rapidly rises, all slushy from the water/hail mixture. Ten minutes later though, the storm clears off, the sun returns to its spot and it's as if nothing happened. My rental car bears witness, however, looking like a cratered meteorite. Returning to Cowley I wonder how the pilots and aircraft fared but I learn that the storm cloud just passed south of the field, dumping only rain.

August 5 - Day 7 True to the weatherman's word, this day exhibits classic post-cold front conditions. The cu starts at something closer to a normal time and the first ships are towed aloft for a 1300 competition start. Funny Girl is mine alone and I'm determined to improve on yesterday's score. But everyone else has improved their technique as well, so despite a 222 km run and an average speed of 71.2 km/h, I still find myself in the middle of the rankings. Realizing that I've been wasting time in the upper reaches of the thermal, I decide to make use of the averager on my vario and to leave a thermal as soon as it shows a steady drop. I also decide to be more aggressive between thermals.

The camp picnic is on that evening. Catherine and some others have organized heaps of potato salad, veggies, dip and desserts. Meanwhile, barbecues appear out of nowhere, sporting T-bones, sirloins and hamburgers. Prizes are awarded for best table top decoration (a Cowley tradition) with eloquent critiques by another Cowley veteran, Stewart Tittle from Oregon.

August 6 - Day 8 Last day of the competition and it's the best weather of the camp. The cu starts pop- ⇨ **p19**

Stimulating improvements in soaring safety

Ian Oldaker, FT&S committee

HAVE YOU EVER DREAMT of silently flying over treetops, to soaring up over a tree ahead, to circling around an opening in the forest where a pool of water beckons? I have not only dreamt it, but I've done it in a microlight. Yes it was very quiet! Quite an experience I can tell you, one that I would like to repeat! However, I could see dangers that lurked there too. Flying low over the trees invited distraction, being caught out by unseen downdrafts, or engine failure with nowhere to land. My human power of reasoning told me to beware.

There is evidence that other species can reason, even sort out what to do for the best outcome. There is much evidence that the human species can do likewise, and more! However, we can be the most destructive animals on the planet, as shown by the many continuing small confrontations and by larger wars. It is beyond comprehension to many.

The human species is unique in that we can communicate on a very high level, to reason, to motivate, to teach and to transmit our innermost thoughts. We react to many stimuli, and our reactions to them depend on our personalities, knowledge and skills, on our life experiences, in fact on ourselves. We have developed into the person we are today, influenced by our surroundings, parents, teachers, fellow students and in later years by our social and work contacts. Many experiences are positive and enjoyable, but some can be the opposite, and even destructive.

What sort of stimuli or inputs do we receive all day? How do we react to them? I can think of two types: those received from our surroundings, and those received from people.

In the first case we can see, feel, and hear things such as a wonderful sunset or mountain scene, we can feel the texture of a sublime food — we can taste it too! We can hear bird song, or water rippling over stones in a stream. To the second type, we react to people when socializing and working. We can derive great joy from just being with someone, from wonderful conversations and arguments that have a constructive outcome, like agreeing on a great book or concert. At our job, we can enjoy interfacing with others of like mind, of working towards a team goal perhaps, or writing a research report.

Yes I may be dreaming, but the power of us humans is to enjoy life. We make of it what we may. I have chosen a range of activities, such as soaring which I enjoy teaching and solo, and in which I can react with others through this article. Other activities are socializing and endeavours that are more personal, like photography. We each will have a personal list.

When we are engaged in a sport that we feel very passionately about our reactions to others are sometimes more emotional than rational. Someone else can stimulate a negative response. In soaring, this does not bode well for safety! I am sure you know what I mean when I say our reactions can be constructive or destructive. Look at the accompanying table.

The first column does not apply to any of us. I say this with some assurance because all of us deny we are pathological! I suggest that if you react to the first column with, "It doesn't apply to me", then we do have a problem. At one time or another, all of us have denied that we were responsible for something: "No, I didn't take that cookie!"

On a more serious note, you may know of someone who tried to tell you or "the club" that there is a concern with some aspect of the operation. The club was not listening to this messenger; the members did not want to know about the problem. Okay, you "the leader" thought the so-called problem was of little immediate concern so did not act on the message. However, if there is a large enough problem seen by members who have agreed to take action, then surely this must be done, and soon. Otherwise, we have to say that the culture in that club is pathological! Hey, I do not want to be called pathological, you say. So my reply is — act. If safety is at issue, is it not worth taking that action?

There is of course the question of level of risk, and what benefit can we derive by fixing a particular problem. For example if the perceived event will happen only occasionally but the consequence would be major, perhaps serious injury to a person, then this event

How different organizational cultures handle safety information

Pathological Culture	Bureaucratic Culture	Generative Culture
Don't want to know	May not find out	Actively seek it
Messengers (whistle blowers) are shot	Messengers are listened to if they arrive	Messengers are trained and rewarded
Responsibility is shirked	Responsibility is compartmentalized	Responsibility is shared
Failure is punished or concealed	Failures lead to local repairs	Failures lead to far-reaching reforms
New ideas are actively discouraged	New ideas often present problem	New ideas are welcomed

needs to be addressed. If your club members have identified such an event, this then becomes a high priority item. At the other end of the scale, if the frequency of the event is most improbable and the consequence low, any action would be given a low priority.

At the safety conferences run recently across the country, participants at all conferences identified shortcomings in our training beyond licence. You felt the level of training is in need of strengthening. We can start to improve piloting skills and knowledge right now, using the Bronze badge training, and many clubs are doing this.

Take a non-soaring day and make a great flying day possible by setting badge tasks as goals for the day! On soaring days, other exercises can be introduced, for example advanced thermalling and dolphin flying with an experienced cross-country pilot/instructor. Skill levels can be improved by flying dual in more difficult weather conditions — who wants to be only a fair-weather pilot? There is bound to be a time when you come back to the club to land when the winds (read turbulence and possible downdrafts) have increased beyond your earlier experience and skill level; so be prepared!

We need to identify and then make members aware of all risks. The safety audits are designed to help the club's audit team identify areas that need action to minimize future risks. If someone blows the whistle and tries to identify a safety concern, our overall safety record is such that I would say you must give very serious thought to addressing that concern. A wing is run over by a car driven by a thoughtful (we are, aren't we?) person, but one who is not a glider pilot. Why was this person asked to assist and not briefed on where not to drive, for example? Cost? Many dollars.

Another concern could be a rule or "club practice" whereby a person inadvertently landing out, has to pay a fee. This may simply be contributing a free beer to all at the club that evening ($ cost and the social cost of the making fun of)? Yes, this is common, it's the macho thing to do, but think of the effect on another pilot, as he or she tries in future to make it back to the field in sink. Our concern now should be this other pilot. Would this pilot also have been safe stretching the glide, and the safety concerns that this engenders, when it would be better to reward a successful outlanding? Come up with new ideas to avoid accidents of this sort, and we will begin to move to the right in the table! I do not think many of us want to be labelled as pathological in our approach to safety!

The bureaucratic type of club has many committees, of one person maybe, each with its responsibility. When a safety concern is raised with someone in authority, the tendency is to slough it off because it is not in his or her department! Look at the centre column of the table and ask yourself if any points are valid for you or your club. Are the messengers afraid to approach those responsible for running things? In other words do the messengers get short shrift, or does the club take their concerns seriously? Be honest because in Canada our accident rate is very high and we have a target to reduce it by a factor of four below the historical level. Yes, Sweden managed to reduce theirs by a factor of three over about a five-year period late in the last century, so surely we can emulate them? Nevertheless, to do so we have to become forward-looking in a generative type of organization.

Individually we must take responsibility to act and to improve our attitudes towards how we view safety. As a person in your club who is a "leader" will you listen to others, and will you honestly consider their ideas even if the idea was not yours? Yes, I know about the "NIH (not invented here) syndrome"; it is a counterproductive feature of life. Nevertheless, knowing that every idea has to be thought of somewhere, we can begin to look at local fixes as being worthy of further investigation. Try it. One good idea often spawns another.

We all should aspire to have a "generative" safety culture in our clubs. The club hierarchy actively seeks information from its members, old and new! The club has a "blue book" at the flightline. What is this, I hear you say? It is a simple blank book for anyone to anonymously enter their safety concerns and their description/witnessing of an incident. You can describe a safety item such as slipping shoulder harnesses in the two-seaters, or add your comments (complaints) about how the club operates. Pilots in this type of club have the character and personality to accept comments (perhaps implied criticism!) and they look at events "from a distance". In other words, they feel a responsibility towards the club, and not just to themselves — a generative approach to safety. This should be encouraged in all clubs.

The blue book allows new ideas to be brought forward as they are thought up, often spontaneously while waiting to go flying. Maintenance items, as well as teaching methods or flying curriculum can all be discussed, surely an excellent way to involve all members. If we are truly to make an impact on our safety record, every idea deserves attention.

Humans react to stimuli in many ways. Simply put, we can react to other people negatively or positively. If someone has an idea about safety, we should all listen, given our record in soaring! I said earlier we can derive great joy from our lives, but it needs a positive approach; who can enjoy the sport if even one or two of us are negative? This goes for our approach towards how others fly too. If you see someone asking, for example, to take off more into the wind, respect their request; do not force them to do what, in effect, they have asked not to do! If however you see something that you consider to be patently unsafe, such as dive brakes on the 2-33 open at the start of the takeoff roll, don't hesitate to act. If the only effect is to delay the takeoff, the pilot(s) should thank you for the concern for their safety.

We have said that the Canadian safety record in gliding is poor. It is four times worse than the general aviation rate, and I believe we should be able to do better. We have established a national goal of reducing the rate by a factor of four — *SAFETY x FOUR* is the slogan (Safety times Four). You should expect to see this increasingly at all clubs. Support it and we will begin to make a positive impact on the record, and incidentally on our insurance rates!

Remember, one life saved is well worth all the effort, however small the contribution of each safety initiative. ❖

Risk management = soaring safety?

Henry Wyatt, Edmonton Soaring Club

Comment from the trenches on the meaning of safety

DOES ALL THIS TALK ABOUT A SAFETY PROGRAM IN SAC mean that what we have been doing is unsafe? Hardly. It's all relative. While Canada's safety record could be better, only a small minority of flights end up in trouble. In any case, gliding carries at least some unavoidable risk. This leads some to feel that safety programs are too formal and inhibit the joy of flying. Why then should we need a safety program?

In the first place, I suppose, we need to satisfy SAC which is concerned about accident rates compared with other countries and about insurance in the future — insurance in aviation training settings is becoming more difficult. All clubs were asked to run through an extensive SAC Safety Audit last winter and we all took part. But the greatest stimulus came in the summer of 1999 when our tutors at the club summer training camp were worried about what they perceived as sloppy flying, and asked us to tighten up. Now that the gliders have been put away for awhile we should revisit the question.

To kick off this review let's start by asking whether we should be talking about safety at all. I recognize that *safety* is a basic word in all of flying — example, the National Transportation Safety Board and Transport Canada's Safety Section. But no sporting activity is without risk of some kind, and all sporting activities will face at least some of the adverse outcomes of those risks. What is safe for an experienced soaring pilot may well be hazardous for a student. Safety can at best be only a relative thing. The word has raised some hackles, seeming to denigrate the efforts of the many people who have held the clubs together over the years, and inviting arguments about whether our record is as good as, or better than, or acceptable, or whatever else we wanted to quarrel about in our club.

Looking through Transport Canada's list of publications, two safety-related subjects are recognized: "Aviation Safety" on the one hand, and "Risk Management" on the other. I was puzzled about the difference between the two since risk management seemed so much more positive a term without any inferred threat of regulation or control. It turns out that aviation safety programs are designed to apply general principles of risk management in the aviation setting. If we drop the word safety, how does gliding look if we start thinking about it in terms of risk management instead?

Such an approach says, "We have done well so far. We want to continue to do well. But if few accidents are happening how can we analyze them and make adjustments?" Indeed, accident analysis, while obviously helpful, can't prevent the accident that's being analyzed. Let's instead look at the risks involved in our sport, learn to analyze the risks objectively, and then decide which risks are beyond our control, which within our control are acceptable, and which can be reduced or eliminated by adjustment to attitudes, skills, or procedures. Let's manage the risks.

Think of the issue of currency for example. Experienced members often argue that lower time club members place themselves, their passengers, spectators, or our equipment at risk because they don't put in enough air time. They should be flying gliders at least 20–30 hours per year and then the risks would be so much less. But we can't make soaring cheaper if cost is the issue, and we can't whip them into coming out to fly if that is not their inclination. If we demand minimum air time which is outside their scope we risk losing members. What is to be done?

We need first to decide if this issue is important at all. I think that most of us would say it is. We would then marshall the different viewpoints and the arguments that follow. Some would argue that this risk is unmanageable and must be accepted as it is. It's a legitimate point of view, but it's regressive and ducks the issue. Others would argue that we must set minimum times and let members leave if they will. But that exaggerates the problem of declining membership and ageing pilots we already face. A risk management approach might say that since we can't whip people to fly more we should strive to make it easier to fly well on the short times they give to the sport.

David Thurston in *Design for Flying* gives us an example from power flying: "As aircraft came into mass production and rental ownership developed, flight safety was frequently related to the speed with which pilots could locate specific panel instruments in an emergency. Following a brief pattern checkout they might be flying solo in an aircraft new to them, with instruments not at all similarly located to those of the plane flown for the past 30 or 40 hours. And so corrective action could be slow when needed, and frequently too late. To improve the situation, a standard location of the basic IFR instruments is now part of the certification requirements for aircraft heavier than 6000 lbs gross weight. This same arrangement is applied by the FAA to all aircraft equipped with attitude or directional gyros, resulting in the familiar T-panel layout ..."

But is it really possible to make flying gliders easier? Perhaps. For example, the mnemonics we ask our students to master for pre-flight, pre-maneuver, and pre-landing checks are not easy to recall, especially since in the different situations and even in the one mnemonic the same letter might stand for different things depending where it is located in the sequence. If they flew more they would remember, some say, and when they remember they are flying enough.

Yet the emphasis on written checklists in power flying is absolute — no need to cloud situational awareness at a critical time by the distractions of recall. It's amazing how a little glitch in memory can distract attention from what is going on in the world outside the cockpit. But we can minimize that risk at least. Low time pilots would fly safer if they had the checklists clearly displayed on the ⇨ **p15**

Going electronic

Canada's first computerized flightline data acquisition system

Eric Gillespie, SOSA Gliding Club

SOARING HAS ALWAYS OFFERED a wide variety of challenges that most pilots seem to enjoy. However, clubs have also been faced with the much less appealing but no less important task of having to record and account for all this glider flying that occurs at clubs across Canada each season. Over the years, each club has evolved its own system to meet local needs. At the same time, clubs that maintain higher levels of membership and that have a lot of flying activity (as well as smaller clubs with a smaller volunteer base), are all faced with the reality of having to keep accurate books and records during a period where, as writers to *free flight* and elsewhere have commented, the availability of personal time and the 'spirit of volunteerism' within the sport may well be waning.

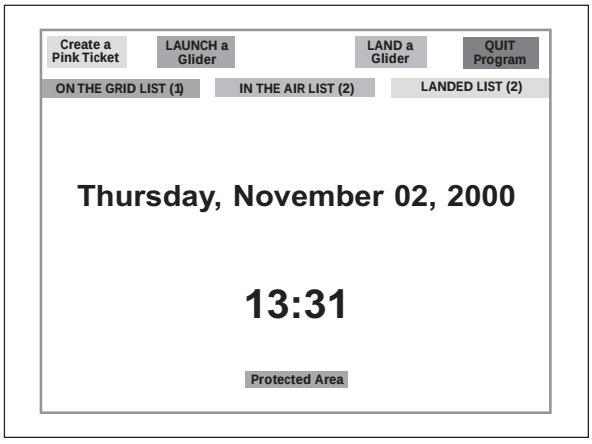
In order to meet these and other challenges, this February the members of SOSA passed a resolution that the Board of Directors proceed to implement a computerized flightline system.

This project started with the idea of a computer program that would handle the club's primary record keeping and accounting functions, using direct data entry right at the flightline as each flight took place. Similar programs were already in use in Europe and some of these were investigated, but for a variety of reasons none proved suitable. Consequently, a more specific program and accompanying hardware package needed to be developed. This had been attempted before, but each time obstacles had been encountered that had been difficult to overcome. This time, the initial programming work was completed in time for SOSA's AGM. Consequently, a working model was available for members to inspect and test drive before the plan was put to a vote. This clearly contributed to the support the project received in its formative stages.

Once approved by the membership, a significant number of design and implementation issues had to be addressed. These included finalizing the program itself, purchasing a computer, designing a secure method for protecting it while in use, storing it, powering the unit, and integrating it into both the club's accounting systems and into the day-to-day operations at the flying field. Each of these issues proved to be challenging.

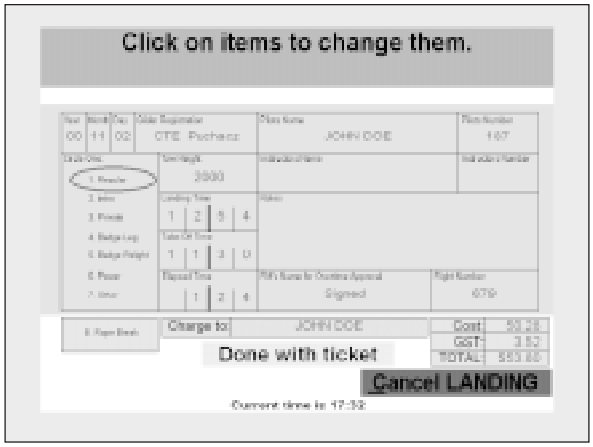
The computer program

At the heart of any computer system is its software. In this case, the program that is now in use at SOSA was written in Visual Basic code. Based on the premise that



Dale Kramer/Terry McElligott

Figure 1 Main Program Screen showing primary functions.



Dale Kramer/Terry McElligott

Figure 2 The "Create a Pink Ticket" screen that allows main data entry to take place.

La paperasserie électronique

La paperasserie est, peut-être, l'aspect le moins attirant de notre sport. Étant donné les demandes de temps de plus en plus exigeantes et la difficulté de trouver des bénévoles, il est devenu presque impératif de rationaliser nos systèmes administratifs. Dans cette perspective quelques membres du club SOSA ont décidé de se hasarder là où d'autres n'ont rencontré que défaite amère.

Cet article décrit le processus d'introduction d'un système électronique pour l'enregistrement de l'activité à la ligne de vol (flight line) que le club SOSA a mis sur pied en mai 2000. Il traite du développement et des capacités du système, des obstacles surmontés, et des expériences du club à ce jour en utilisant la nouvelle méthode. La description comprend l'équipement aussi bien que l'informatique. Apparemment le logiciel d'application est intégré avec les autres programmes du club, tels que ceux de la comptabilité et de la facturation. La conformité à diverses exigences de Transport Canada est ainsi facilité.

Tout compte fait, les membres du club ont conclu que le changement se révélait une réussite. L'auteur suggère que le système peut être modifié par d'autres clubs, et cela selon leurs besoins. Grâce à l'administration à SOSA et aux programmeurs, le logiciel d'application, qui utilise Visual Basic comme langage de programmation, sera disponible gratuitement à quel club que soit. Pour de plus amples renseignements, adressez-vous à Eric Gillespie (416) 597-8578 ou à <*egillespie@dvbb.com*>.

the more closely things paralleled the previous system the easier the transition to a computerized system would be, the software was designed to replicate as closely as possible the normal operation that club pilots were al-ready used to.

For years SOSA's system has been based on "pink tickets". The pink ticket is a pink piece of paper that duplicates any information that is written on it onto an identical white card that is also attached to the pink paper. The pilot simply fills out the relevant information such as the pilot's name, the aircraft that he or she will be flying, the tow height etc. — this starts the record keeping procedure. Even with the computer, it was decided to keep the pink tickets, given that the pink paper copy would still be necessary for the pilot to have a written record of his or her flight to take home, and given that the club would still want a second hard copy (the white copy) in order to verify data entered into the computer and as a backup in the event of a computer failure.

Therefore, even with the computer the first step in the process is still for each pilot to complete a pink ticket. The information on the ticket is then entered directly into the computer. This is done by starting on the Main Program Screen (see Figure 1) which has a number of click-on icons including one labelled *Create a Pink Ticket*. Clicking on this icon causes an electronic replica of the paper pink ticket to appear on the computer screen (see Figure 2). All that the pilot who wishes to fly has to do is copy the information straight from the written pink ticket to the electronic one. The computer system handles just about everything else. As soon as the basic information is entered, the electronic pink ticket for each flight is then automatically transferred to the *On the Grid List*, where all of the entered tickets are held awaiting each glider's takeoff. When an aircraft is ready to launch, all the operator has to do is click on the *Launch a Glider* icon on the Main Program Screen. After a glider is launched, the pink ticket is automatically moved from the *On the Grid List* to the *In the Air List*. It's then possible to track on one screen all of the aircraft that are currently in flight, who is in them, and what their elapsed soaring time(s) have been.

When a glider returns to the field (or is reported as "landed out") the operator then clicks on the *Land a Glider* option. The time of landing and total time of the flight is recorded and the electronic ticket is then automatically transferred to the *Landed List*. By looking at this list, from one screen any club member can see all of the gliding activity that has taken place throughout the day, or because statistics are updated immediately the complete activity for all club aircraft throughout the entire flying year.

As with any gliding operation, there are times where there are lags in recording information as the day goes along, or times when information that has already been put into the system requires correction. From the outset, the computerized system was designed to be as flexible as possible in order to meet these needs. At any gliding club there are also a number of unusual types of flights such as introductory flights, badge legs, contest flights, relights, simulated rope breaks, etc. that may all be charged at different rates. The system also accommodates all of these requirements.

As well, a function has been incorporated into the program that allows all flying information to be downloaded on to a computer floppy disc at the end of each day, and transferred directly into the club's accounting system to produce members statements without any further data entry being required. The system is also security protected to ensure that cross checks of data are performed and to prevent tampering. Furthermore, the system provides a printout for Transport Canada record keeping requirements, aircraft journey logs and other statistical information such as numbers of instructional flights etc.

Packaging the system

In addition to designing the software, hardware quickly became a major concern. In particular it was necessary to create a hardware package that could be operated out of SOSA's school bus, this being the club's normal flightline operations centre. However, the system had to be completely portable for those not uncommon days when the bus could not be used due to wet conditions, or was unnecessary due to the small number of pilots flying that day, or just wouldn't start. The computer also had to be protected from the rain, sun, heat, cold and dust that invariably accompany launch activities. Moreover, the whole system had to be electrically powered.

From the outset it seemed evident that some form of laptop computer would be the best alternative. However, the unit would certainly not survive unless it was properly enclosed. As a result, a special case was designed and built (see Figure 3). When set up, the case completely shields all of the laptop computer except the screen itself. The laptop's own internal keyboard and mouse are covered and protected, and only backup the external keyboard and mouse. When the inexpensive external keyboard and mouse fail (which will inevitably happen given their environment and the use that they are subjected to), for under $25 they can be quickly replaced without shutting the system down at all.

Once it's packed up, the road case is fully portable and can be used on a picnic table or from the back seat of someone's vehicle. For security purposes the case is locked away each night in the same area that members must go to in any event to obtain the other ⇨ **p18**

Steve Burany Sr./Terry McElligott

Figure 3 Flightline computer system housed in its case and in use at SOSA's flightline bus. The weight is about 30 lbs, and closed case size is 20" x 30" x 6".

Handling a PTT

Articles in the recent past have highlighted the number of accidents that result from poorly handled Premature Termination of Tow (PTT) incidents. A PTT is any incident that causes an aerotow to be terminated earlier than planned such as a rope break, a release mechanism failure, a bird strike or other tug problem.

Although we must do everything we can to reduce the likelihood of a PTT — for instance by properly inspecting the release mechanism during the DI, checking the tow rope rings before each hook-up, and regularly inspecting tow ropes — they cannot be eliminated entirely since some causes really are beyond our control. Hence it is important for us to understand why PTT incidents often result in serious accidents and to find a way to break the chain of events.

The most dangerous PTT incidents are those that occur within the first 500 feet of the tow. A typical accident scenario would be a rope break at 150 feet on a calm day with insufficient runway remaining to land ahead. In situations of intense stress the human mind almost always resorts to reflex responses, and since most of us have landed on runways hundreds of times, the automatic response is to try to land on the runway we have just left. Turning back with insufficient altitude typically results either in a wing hitting the ground or in a spin when the pilot stalls the glider in a reflex attempt to avoid hitting the ground. Such accidents are often fatal.

We are all familiar with this scenario from training, and know that in the event of a low-altitude PTT we should land straight ahead (within 30 degrees either side of the runway heading) instead of attempting to turn back. Unfortunately, accident reports show that this knowledge is not sufficient to prevent fatalities in the circumstances described above — every year around the world a number of pilots who know that they shouldn't attempt to turn back from low altitude nevertheless do try after a low altitude PTT and are injured or killed as a result.

The problem is simply that under the intense stress of an emergency, the knowledge which we have rehearsed perhaps fifty times can't compete with the drill of landing on the runway which we have rehearsed thousands of times.

To counter this, a procedure borrowed from power flying can be rehearsed — an "emergency procedures" can be added to the end of the pre-launch cockpit check to rehearse the event of a low altitude emergency. For aerotow launches, this would be a PTT, for winch launches a cable break, for motorgliders an engine failure after takeoff.

During the "Emergency Procedures" item, the pilot who will be flying the takeoff should describe what he would do in the event of a low altitude emergency. Note that this will not be identical for every flight — the correct procedures will depend on the method of launch, weather conditions, runway in use, experience of the pilot and other factors. For example, a good response might be:

"In the event of a PTT with sufficient runway remaining I will deploy full airbrakes and land ahead. If there is insufficient runway remaining and below 500 feet I will land on a suitable field within 30 degrees either side of the runway heading. Above 500 feet I will turn right through 180 degrees and land on the takeoff runway."

Because the correct procedures depend on the weather and other factors, it is essential to think carefully about your options for each flight. For instance the procedures given in the example would be completely incorrect if there was strong wind, because a downwind landing would not be possible. Although I can't give answers for all situations, the following considerations should help in formulating suitable procedures:

- Don't attempt a downwind landing if the wind is stronger than about 15 km/h — in this case, you should land straight ahead unless you have sufficient altitude to execute a complete 360 degree turn and land into wind.
- If there is a crosswind, then if you turn back you should turn *into* the crosswind so that it will drift you back towards the runway during the turn.
- Make use of an available cross-runway when conditions are suitable, as it can require less of a turn to get back to it than it would to return to the takeoff runway.
- The height at which you elect to turn back will depend on wind conditions and your level of experience. Err on the side of caution — it is much better to land straight ahead in a field and damage the glider than to attempt to turn back with insufficient altitude and kill yourself.

As well as knowing what you would do at different phases of the takeoff, it is important to know when each phase is reached. The transition between landing ahead on the runway and landing on a field is best judged by eye, as we are used to judging glide performance by eye during final approach. However the point at which you will attempt to return to the field is best determined using the altimeter, as normal flying does not involve any similar visual 'pictures'.

In order to avoid having to look at the altimeter after a PTT incident (which takes valuable time, and distracts you from the critical task of maintaining flying attitude), the pilot might say "decision height" when reaching the height at which it is possible to return to the airfield. Then the decision making process is simple: if you have called "decision height" then you return to the airfield in the manner described during your preflight "Emergency Procedures" check; if you have not called decision height then you land straight ahead, either on the runway or on a suitable field.

Andrew Roos, *Sailplane & Gliding*

In a crosswind situation, the path that the towplane takes immediately after takeoff can significantly assist the pilot who suffers a PTT.

Why? What is the best track a towplane pilot can take right after lift-off on a crosswind launch? Think about your answer as it applies to your club. editor

New instructors for 2000

Congratulations to the following additional pilots not listed in the last issue who attended instructor clinics and were upgraded to the following higher SAC instructor levels:

to Class 1:	Karin Michel	Cu Nim
	John Toles	Saskatoon
	Rick Zabrodski	Cu Nim
	Mike Morgulis	Great Lakes
to Class 2:	Marc Gohler	MSC
	Dan Dawson	Bluenose

Félicitations à tous les instructeurs augmentés de niveau et les nouveaux instructeurs, suite au cours d'instructeur francophone donné l'été dernier à Champlain:

Augmenté à la classe 1	- Gabriel Duford - Sylvain Bourque - Jean Lapierre
Augmenté à la classe 2	- Réjean Dallaire - Luc Morin
Nouveaux instructeurs de classe 3	- Julie Hébert - Christian Pronovost - Richard Martineau - Martin Camiré - Alain Tremblay

Risk management ...

from page 11

panel in front of them. This way the checks are quickly out of the way and the pilot can concentrate on planning the circuit, thinking what is to be done about that other glider approaching for landing. SAC has provided stick-ons for just this purpose. A risk management approach would direct us to use them. We recognize that we may never be able to measure whether they have made any difference — statistics won't help because incidents occur in only a tiny percentage of all flights.

As we went through these exercises we would find issues which required some sort of change in rules or policies (how freedom-of-flight lovers hate rules), some which require changes in equipment management, and many which needed only an openness, a sensitivity, and a willingness to share our own concerns and mistakes and to discuss without recrimination the concerns and mistakes of our colleagues. As I see it that is just what is meant by risk management.

Another example. We are always anxious to promote our sport by giving familiarization flights. So often those people come with their families for a day's outing. If we have only *one* prime directive it is that we must never allow harm to visitors or guests. We MUST take this seriously — the first such accident would be unforgiveable. But gliding, unlike any other form of flying, must have people directly in support on the active runway — there is no separation between the ramp and departing aircraft. So we should always be aware of the risks of children running onto the runway or to relatives taking pictures of the passenger in the cockpit. Do we need only rules about this, or different runway markers, or policing, or segregation of onlookers? Where should towplanes be parked during lulls between tows? Is there really any risk of a child being under the nose when the towpilot starts the engine? It's certainly worth thinking about.

Lastly, for this short essay, what do we think of the SAC safety audit questionnaire of last fall? ESC went through it in detail answering all questions as best we could. Many seemed remote or their relevance seemed obscure. When we finished we had so many recommendations the list was daunting. I'm not sure how many of our members even read the final document, the list was so long.

Maybe there is a better way. The biggest difficulty in changing the way we approach our sport is for members to believe change is worthwhile — to get us to buy into a new culture. Perhaps we should hold a brainstorming session to list the things which our own members have noticed or been concerned about, then focus attention on those. Perhaps all members should be asked to send an e-mail or phone in about things that have bothered them. A list of examples of things to sort out by risk management analysis would be:

- Stall/spin accidents and unusual attitude training — is it enough to learn to keep the yaw string centered,
- Collision avoidance, the physiological limits of lookout, and the place of radios,
- Defining pilot decision making choices (SOAR) in terms of relative risks attached to each option,
- The inherent risks of unauthorized manoeuvers and attention to limits set in flight manuals,
- Blaming the aircraft when we should pay more attention to weight and balance,
- Consistency of instruction and upgrading of instructor skills,
- Senior pilots as role models,
- Equipment maintenance and the army of irregulars doing work,
- Do clubs need sanctions and how should they be used,
- Damage to gliders on the ground,
- Should weather limits be set by individual judgement or by club policy.
- Risks to signallers.

We'll keep you posted. ❖

Invermere Soaring Centre 2000

The soaring scene in Invermere has undergone some significant and encouraging changes in the past year. The most significant change is the introduction of the Invermere Soaring Centre, a commercial towing and instructional operation incorporated by Trevor Florence this spring. In August, Trevor was joined by Ernst Schneider, and the operation has begun some significant expansion. Some details and links to more information are available on the website <*www.soartherockies.com*> Have a visit.

Late last year, Trevor was involved in improving the airfield ground conditions by leveling and seeding the old staging area. Hopefully by next spring, the newly seeded ground will alleviate some of the perennial dust problems that have plagued the airfield in the past (conditions have already improved significantly). Irrigation is anticipated by the flying season next year. Trevor was also involved in building new hangars in which to house his business. A welcome addition are the toilet and shower facilities in one of the hangars. Another welcome addition is the daily weather briefing held in the morning, to inform pilots of the current conditions and forecast, provide vital information to visiting pilots, and to provide a get-together for badge and record planning.

Invermere Soaring's present fleet consists of a Pawnee tug, and a PW-5 for rental. Commercial training flights are conducted in East Kootenay Soaring Club's 2-33, and were augmented with Vancouver Soaring Association's Twin Grob. Invermere Soaring Centre has also become a PW-5 dealer, and has five ships ready for sale. It has also become the Schempp-Hirth dealer. Trevor and Ernst will have a Duo-Discus available for flights, instruction, and rental in the 2001 season. They are also hoping to add a high performance single seat glass ship to the rental fleet as well.

The Invermere airstrip is no stranger to sailplanes, and this year it was host to some very energetic pilots and an impressive fleet of private ships. Regularly flying from the field are three DG-400s, a DG-800, Ventus 2CM, Ventus Ct, Discus B, ASW-20, a couple of PW5's, a Ka6CR, Libelle 201, VES-1, a 1-23, a 2-33, Twin Grob, and an HP-18 (among many other short term visitors). The airfield environment is charged with keen pilots, both newcomers and experienced hands, facing off for challenges ranging from Silver badges to Diamond flights and beyond. One world record was recorded by Trevor, who flew his PW-5 over 630 km at an average speed of 88 km/h! Tony Burton recorded a Canadian 3TP record which held for only one week before being eclipsed by Trevor. Some of the most significant flights were largely uncelebrated and modestly completed by Hans Binder, a retired Swiss Air pilot. Most of his many flights were on the order of 7–9 hours long, traversing far more than 500 km, and including at least one trip up to Jasper and back! The potential of the Canadian Rockies is being discovered, and far exceeds most of the explorations that have been attempted to date. It is most interesting and refreshing to fly and exchange experiences with pilots from across the country, and around the world.

Congratulations to Trevor and Ernst for establishing a vibrant and energetic soaring centre.

Mike Glatiotis, Cu Nim

The owner maintained glider

As of 27 June of this year, Transport Canada instituted a new category of flight permit which allows owners of specified aircraft now having Certificates of Airworthiness to do their own maintenance. Most sailplanes are included.

The TC working group on recreational aviation concluded that there existed a number of simple, non-complex design aeroplanes for which replacement parts are virtually unobtainable, manufacturers product support is non-existent, or the service of AMEs with knowledge and expertise in the maintenance of older aircraft are lacking or difficult to find. As a result, a "Ministerial Exemption" has been issued giving the details of the owner maintenance program. Once this program is promulgated in the Canadian Air Regulations sometime in 2001, it will become law and then aircraft not on the current list can be considered also. The Exemption allows the owner/s to perform the maintenance, modify/repair the aircraft, and install uncertified parts. The owner must sign all work done on the aircraft. Once an aircraft becomes owner-maintained, it is treated much like an amateur built aircraft.

When an aircraft becomes owner-maintained, it cannot be flown for hire, it must be placarded as operating without a C of A, the data plate must be stamped with an 'X', etc. Also, the owner must still comply with the published flight limitations — one cannot now fly overgross or do unauthorized aerobatics, for example. Several normal restrictions applying to the maintenance of C of A aircraft are lifted (although an owner may be pretty dumb to disregard them):

- maintenance need not be performed by an AME — you can have an AME perform work/repairs you don't feel qualified to do, but the AME doesn't sign off on the work, you do. For example, you could do all the annuals and minor maintenance to your 'LS-22' while sending it off for composite repairs to a qualified repair shop if it got structurally dinged.
- owners need not comply with airworthiness limitations such as a life limit or a maintenance task that is mandatory as a condition of the type certificate.
- owners need not comply with Airworthiness Directives or equivalent documents.

With these allowed 'privileges' there is a downside; it is for all practical purposes a one-way street. It is highly unlikely that an owner-maintained aircraft could regain a normal C of A since an AME would have to sign off that the aircraft complies with all requirements in paperwork, maintenance, and parts as a C of A'd aircraft, and I doubt that an AME would bet his licence on that. As a result, the resale value of an owner-maintained aircraft could suffer compared to its AME-maintained equal. On an older glider this may not be significant but you might want to think about converting a new glass ship. Still, many clubs have members who know more about their sailplanes than the few AMEs in Canada who have composite expertise or are familiar with sailplane structures.

Questions on this new flight authority can be directed to: Maurice Simoneau, AARPG, TC Aircraft Maintenance & Manufacturing Branch <*msimoneau@tc.ca*> (613) 990-9490.

The forms, directions, and the list are available from Transport Canada as an Aircraft Maintenance & Manufacturing Staff Instruction (MSI 15). This form can be down-loaded from the TC website <*www.tc.gc.ca/aviation/mainten/aarpg/index_e*>.

Tony Burton

A craftier way to win contests

Do you remember how you reacted when you last heard about a problem with something you owned? The tires on your car are rumoured to throw their tread and you hear thumping noises everytime you drive. An article discusses radiation problems on a brand of TV you don't even own and you move your chair across the room. Sometimes you don't even need a story to think something's wrong. You fly a power plane over water and the engine goes into automatic rough. The situation alone makes you pay attention.

Distractions like these don't matter when you are watching TV. But in a competition sailplane they can break your concentration enough to make a difference between winning and losing. Here are some subjects and techniques the crafty competitor might invent to unsettle his opponents. The craftier competitor will, of course, use it to spot the same ploys being used on him.

• mention the newly-discovered delaminating properties of any furniture polish commonly used on sailplanes. Emphasize its ability to attack fibreglass at the epoxy-gelcoat boundary. Speculate on what that could do to wing surfaces at high g-loads.

• Link canopy implosions at speed to a popular canopy cleaner. Set the story in Eastern Europe to make it harder to verify.

• Blame the next ambulance going by on a case of dysentery from the water in the local pub, ideally after one of the competitors had peppers on his pizza the night before.

• Leave copies of a flyer for a male strip joint in a visiting pilot's crew car.

• Be overheard telling your broker to get rid of your shares in a company that sells sunglasses. Cite a secret study of cataract growth in Finnish Air Force pilots using different coloured visors. Make sure that you identify amber as the worst colour.

• Talk about the poor quality control of the type of antifreeze often added to ballast water which results in an excess of flammable elements. Elaborate on this having been discovered when a finisher dumped ballast as it went over the BBQ area. The glider narrowly escaped disaster when the tanks went dry just as the flame front climbing the ballast vapour trail finally reached it ...

• Copy articles on the effect on reproduction of radiation leakage from screens. Spread the rumour among the wives of the younger competitors that a certain brand of flight computer has just been found to have defective displays. Sound happy that you have already got all the children you wanted.

• Invent a new technique, for example, using the leading edge pressure wave of a V-formation to increase the cross-country L/D of a group. When asked to comment at the protest hearing on whether you would have used it, give the look you reserve for your brother-in-law when he wants to borrow money.

The effectiveness of this kind of mind game lies in subtlety. You are trying to spread seeds of doubt that will affect the way one flies, not cause a direct examination of your story. Too many at one time will make none of them believeable where one could be taken at face value. It will only be as credible as its delivery though. As the saying goes, "Sincerity is everything — once you can fake that, you've got it made." Inventing stories like this can add immeasurably to the fun and suspense of a competition. Used sparingly, and told with a straight enough face, you might get someone to believe them long enough to make the tale productive. Enjoy.

Peter King, *from Sailplane & Gliding*

Soaring photo wins grand prize

Soaring is in the spotlight in mainstream aviation circles for a little while. Stephen Liard of SOSA took a series of spectacular photos from a wing boom mounted camera on his Astir CS-77. (Two or three that he sent to *free flight* are so good that I refuse to use any until we can get another colour cover.) He sent several shots to New York for entry into the prestigious *Aviation Week & Space Technology* international aviation photo contest.

He won the grand prize, "Best of the Best", earning a plaque and US$1000 prize (plus an honourable mention for a second one). The winning photo is featured in the 18 December photo contest issue of *Aviation Week*. The magazine should be in the periodicals section of most large libraries.

Coming Events

week of 8 Jan **Toronto area ground school** see page 20.

14 jan - 15 avr **Cours théoriques d'élève pilotes** 10 cours de 4 heures, le dimanche de 9h à 13h (il y aura 4 semaines de relâche) à l'aéroport de St-Hubert. Aussi, du
14 jan - 15 avr **Cours de rafraîchissement pour instructeur** Horaire non définitif: 10 cours de 4 heures, dimanche de 9h à 13h à l'aéroport de St-Hubert.

Coût – $100 par série de cours. Communiquez avec Sylvain Bourque au (450) 641-1766 ou à <*champlain@videotron.ca*>

mid-March **SAC Annual General Meeting** Winnipeg, MB Details will grow on the SAC webpage. Contact Howard Loewen <*holoewen@home.com*>

mid-March **CAS Winter Soaring Seminar** Hawkesbury, ON (date/location TBA) A one day seminar covering cross-country soaring techniques for novice and advanced pilots. If you want to start flying XC or to start competing, this is a day you can't miss. Dave Springford <*springford-d @rmc.ca*>

27 Jun - 6 July **Cdn National Soaring Championships**, Rockton, ON. Practice days are 25-26 Jun and the contest runs from 27 June. CD Larry Springford.

Earliest possible solo

Congratulations to Erich Zimm who went solo on his 14th birthday at York Soaring on 3 Nov thanks to the effort of a few diehards who got him up. The flight was perfect with a great takeoff and perfect landing in a 25 km wind. Even the 2-33 looked beautiful. Pretty good for a young man who only began lessons the 2nd week of August this year. He could have gone solo after the 10–day course that he was allowed to sit in on (the York annual Air Cadet course) but he wasn't old enough. Well, time healed that problem.

Going electronic

from page 13

equipment necessary to start the operation each morning.

For power, after much experimentation with other options such as small gas engine generators (which were sufficient but very high maintenance), a simple 12 volt deep cycle car battery has proven to be effective. The battery is trickle charged, so it is just placed on charge during the week in the same area that the club's aircraft radio batteries are charged and left alone. So far, it has been operated for up to three consecutive days without a recharge and has continued to work, so even though at times people forget to plug it back in to charge, the system still functions.

The end result

The system was first brought onto the field in May of 2000. Given the size of the club and difficulty in offering formal training sessions, only impromptu training was made available. However, in practice the system has proven to be sufficiently intuitive that most of our regular members have been able to simply sit down at the computer and, within 5–10 minutes, make the system work for them. The majority of the people who end up as operators are new members, with little or no gliding or computer experience. However, it has been very encouraging to see that even these members have managed quite well right from the outset. Consequently, since June all of the club's flightline record keeping and accounting functions have been performed using this system and all members statements and accounts have been produced from it.

As with any new system, there have been some minor frustrations and a few difficult moments. However, by making this transition, the accounting and record keeping responsibilities of the club have already substantially improved. This has resulted in a major reduction in both workload and in hard costs to the club. Now that the system is in regular use, much greater capabilities are also being actively investigated and the system's usefulness will probably expand. The role of computers, both in society in general and in the soaring community in particular will surely not diminish in the coming years. It appears fair to say that any club that does this is taking a very important and probably very necessary step in preparing for its future.

As SOSA's Director of Special Projects this year, which has included developing and implementing the computerized flightline system, I'd also like to take a moment to recognize and thank Doug Scott (who got the idea rolling this time around), Andy Gough (who did the first critical round of programming work), Tom Coulson (SOSA's former Treasurer and this year's CFI who has actively supported and assisted), Shirley Dashper (who amongst many other things continues to keep our club aircraft logs and records up to date), and most especially Dale Kramer who devoted a huge amount of time to writing and refining the final version of the program software. On a personal note, due to a car accident last fall that kept me out of the air most of this season, this also turned out to be the perfect year to spend the solid two and a half months of weekends down at the flightline that was required to completely debug the program and resolve all of the operational issues.

Just as importantly, SOSA members as a whole have also risen to the challenge of implementing a new technology. It really has been people such as the club's assistant timekeepers, mid-week flyers and regular pilots that have made the system work in practice. Virtually every member of the club this season has contributed in some way. They are all to be congratulated.

Availability to other clubs

If your organization might be thinking about "going computer", we'd be pleased to discuss the many programming, product and hardware issues that we've had to address, and all that we learned this summer. Please feel free to contact Eric Gillespie at (416) 597-8578 or at <*egillespie@dvbb.com*> anytime. Dale and I have also agreed that we will make the software available free of charge to any club that is interested. Given the way that the program is designed, others should not find it too difficult to modify to meet their own needs. Since much of the programming work is now completed, for a total cost of less than $2,500 in hardware, other SAC clubs could conceivably be operating their own computerized flightline systems before the start of next season. Please let us know if we can help. ❖

Comment from a grateful SOSA member:

To me, the two most important contributions that Eric made were, first, sticking with the project in the face of opposition, and working with Dale to rectify bugs and to educate all available members in the ease of use of the system until it was proven successful, an effort often lacking in a volunteer group. Second, and this is the most important, he recognized from the beginning that any other programs we were looking at would fail immediately because they looked and felt different from the system the club currently used. He and Dale ensured that the images on the screen replicated the paper documents we had used for years, and thus raised our comfort level. I believe that the system, if used by other clubs, can be easily adapted to visually replicate their own paperwork. Thanks for a job well done.

Decentralized nationals

from page 4

6 Location of flight origin.
7 Was a badge leg or a record completed?
8 Was the flight declared before the task was started?
9 List your start point, each turnpoint and finish point in the order flown with all latitudes and longitudes.
10 Provide the task time (or average speed).
11 For a height gain flight, note the maximum gain (the difference between any low height and the subsequent greatest height achieved during free flight).

Alain Berinstain
Microgravity Sciences Program
Canadian Space Agency
6767 Route de l'Aeroport,
Saint-Hubert, QC J3Y 8Y9
tel (450) 926-4782, fax (450) 926-4766
email <*alain.berinstain@space.gc.ca*>

The rules and scoring equations for the competition are available in the Decentralized Nationals section of the CAS website <*www.sac.ca/cas/casintro.html*>.

Despite the poor weather this year I'm sure everyone has made a few notable flights so select your best flights from the season and send the information to Alain. The deadline for entries is 31 January. There is a $100 cash prize, donated by Heri Pölzl, for each class winner. CAS would like to have the results done in time to have the winners announced at the SAC AGM awards banquet. ❖

Priorities

from page 2

Bourse commémorative Peter Corley
Le gagnant de cette bourse d'étude au montant de $2300 est Alexander Rudy. Alexander est un instructeur à SOSA et étudie le génie aéronautique à Ryerson Polytechnical University à Toronto. Cette année, nous avons reçu quatre candidatures. Avec un peu de publicité, nous espérons donner plus d'ampleur à ce programme et susciter un nombre de candidature plus élévé.

Les audits de sécurité
L'échéance pour soumettre ces documents est le 31 décembre 2000. Je tiens à féliciter l'Aéroclub des Outardes qui a été le premier club de la zone Québec-Maritimes à soumettre les résultats de leur audit. Bravo.

Aussi…

- Pierre Pepin a participé à sa dernière assemblée du conseil d'administration les 27 et 28 octobre dernier. Nous tenons remercier Pierre pour sa contribution autant comme directeur durant une décennie que comme président de 1994 à 1999. À cette occasion nous avons remis à Pierre une plaque l'effigie de son modèle et mentor, Bob Carlson.

- 3000 heures de vol sur planeur… C'est ce seuil qu'a franchi le 20 octobre à Lake Placid, André Pepin de MSC. L'exploit est d'autant plus remarquable au Québec où la pratique du vol à voile se limite au mieux à six mois.

- Denis Pepin, aucun lien de parenté avec les deux autres, prend sa retraite comme président du CVVQ. Denis vole depuis 76 si je ne m'abuse et n'en est pas a son premier mandat sur le c.a. de Québec.

- Nous avons eu droit à la dernière prévision vélivole de Jean Richard. Merci Jean de ta contribution remarquable. Il nous reste à espérer que la météo 2001 te permettra de nous prédire des conditions absolument extraordinaires.

Bonne fin d'année et à la saison prochaine. ❖

Who needs wave?

from page 8

ping at noon and gliders quickly fill the sky. I release from the tow into a thermal at 1320, ascending in a solid ten knotter to 12,000 feet in scant minutes. On this day I go further than my previous trips — Centre Peak, Claresholm pipeline compressor station, Fort Macleod and points in between. I use my averager as planned and beetle it between thermals. By now the Jantar has become a second skin and I centre without conscious thought, allowing me more brain power to scout the skies and plan ahead.

Results? I score 178.9 kilometres and an average speed of 69.6! What the hell?! Well, it seems I made a few illegal turnpoints which were taken off my total distance. Otherwise I would've made 219 kilometres and 85.2 km/h. Still, I managed 2nd place, placing third overall.

August 7 – Good-bye. Already this morning the field is noticeably vacant-looking, with many pilots and their families having departed the previous evening. Those remaining are busy clearing up every part of the site and packing their trailers and tents. I'm most envious of Glen and Russ, however — they have enjoyed a tradition of taking turns after every Cowley camp to fly as far as possible back towards Winnipeg, some 1200 kilometres away. Having spent a week in their company, I feel they've produced as near a perfect glider partnership as there can be.

It's hard to say goodbye to the people and the place. My last sight of Cowley is Ursula pruning some of the hardy trees scattered around the campsite. It's a fine metaphor for the sense of caring and timelessness that Cowley represents to those that live it.

My statistics for the ten day camp? At 17:15 hours I happily passed my breakeven point for Cu Nim membership. I managed 505 km and a third place finish in my first soaring competition, gained a personal record height of 13,600 feet (the airfield elevation of 3876 feet is higher than I usually get to soar in Holland!) and also some valuable mountain flying experience.

I didn't score any Diamonds or significant wave, but I made a number of friends. I also developed a burning desire to return to Cowley, that earth-bound paradise for the soaring fraternity. ❖

SAC news

The high cost of a bad address

I seem to having a significant number of copies of *free flight* being returned because members have moved and not sent in an updated address to SAC. At one time Canada Post simply didn't deliver the magazine — now they seem to either sent it back or take off the back cover and sent it in an envelope and bill us. It is my understanding that they don't forward it. The cost of all of this is:

1.	initial postage cost	.50
2.	notification by Canada Post	.65
3.	remailing *free flight* 1st class	.99
4.	printing 2 copies of *free flight*	.50
5.	phone to update address	.25
		$2.89

This doesn't include office time. Finally, SAC's ability to get a bulk mailing discount and 3rd class mail are contingent on the mailing list being reasonably accurate. If there are a significant percentage of mis-mailings due to obsolete addresses SAC's mailing costs could increase dramatically (since we would have to go back to 1st class, you need to use envelopes and would have to pay for envelope stuffing, etc.)

Jim McCollum

Toronto area glider pilot ground school

The Winter 2001 Session is starting soon. York Soaring will be hosting a Glider Pilot Ground School directed at beginning pilots to prepare them both for basic flight training and the Transport Canada examination. The course has a preliminary start date during the week of January 8 and will be held at the University of Toronto's Erindale campus in Mississauga. The ten-session course will be taught either on Tuesday, Wednesday or Thursday evenings from 7:30–10:30 pm.

The Basic course meets TC's licensing requirement for 15 hours of ground school and to prepare the student to write the Glider Pilot examination. However, other aspects of soaring of a more general nature will be covered as well. The material will be presented in a lecture format supported by videos. Erindale College is on the east side of Mississauga Road just north of Dundas Street in Mississauga.

For registration information or if you have any questions on the course itself, please contact Ulf Boehlau:
days: (416)410-3883 <*ulf@problem.org*>
eves: (905)884-3166 <*ulf_b@my-deja.com*>
or <cm855@torfree.net>

For more information, visit the York Soaring website <*www.yorksoaring.com*>.

Insurance 2001

In preparing for renegotiation of the SAC insurance in December, our broker, Grant Robinson, compiled a loss analysis of the Association from 1985 to date. Insurance companies typically look to a loss ratio (claims/premiums) of 60% to maintain an account. Our average for the past 16-year period was 117.9%. Even after removing the two large liability claims of 1996 and 1997, our hull losses averaged 71.5%. Hull claims of the last three years were: 1998 – 107.5%, 1999 – 92.2%, 2000 – 82.7%, and I believe there are some more claims yet to be tabulated for 2000.

Ten years ago we were able to argue that our Association had a reasonable history of alternating good years with bad. That is not the current case — our most recent year below the 60% loss ratio was nine years ago. Also, the insurance marketplace has changed over the past three years. Companies have amalgamated which means there is less competition. While our premium has not increased significantly during this period, insurers have suffered some bad losses elsewhere and are looking to recover their profitability.

In approaching for the insurance renewals, I was asked to prepare a presentation of our safety initiatives to show where we are serious about taking action to approve our safety. Our initiatives comprise the following

steps which have been proven in Sweden and has turned around their record.

Safety Conferences
The Flight Training & Safety committee, having now finished the Winnipeg Safety conference, will have completed its regional presentations aimed at focusing club thinking on safety issues. This program, which is funded out of the safety penalties, will be continued on a two-year cycle in order to keep the focus on safety due to changing personnel at our member clubs.

Penalties
With the renewal for 2000, a structure was implemented to reward clubs and private owners who had a good safety record, and to bring home to others a financial impact based upon their claims history. Over a three-year period this charge can increase as high as 15% of premium, which is a significant burden that clubs and owners may have to bear if their record does not improve.

Accident/Incident Reporting
Flight Training & Safety has revised the form to obtain information necessary to advise on prevention of similar occurrences at that or other clubs. Unfortunately, the quality of reporting is frequently poor or nonexistent, and must be improved. *This has led us to require that the form be filed before the broker will release a claim cheque.*

Safety Audits
Our Flight Training & Safety committee has prepared a detailed Safety Audit report, which we require all clubs to complete by 31 December 2000. This report is very detailed and in the initial stages will make clubs focus on their operational areas which require improvement. These reports are to be filed with the committee. Based upon the individual responses, and starting with clubs which have deficiencies, a follow-up procedure will commence in 2001 which will involve members of the committee meeting with CFIs, instructors and board members of specific clubs to go over their detailed answers and assist in the implementation of corrective action. It is intended that these audit reports be updated on a two to three year cycle to maintain the focus and involve new participants as the personnel changes at member clubs.

A number of clubs have contacted me to enquire about the insurance renewal. We will not have any information on this until early December when insurers have had the opportunity to review our presentation and provide offers. Clubs will be informed as soon as is practical. Enquiries for our broker should now be addressed to Grant Robinson at: Jones Brown, Suite 1100, 1015 Street SW, Calgary, T2R 1J4, ph (403) 298-4314, fax (403) 265-1922, <*grobinson@jonesbrown.com*>

SAC insurance chairman, **Richard Longhurst**

Discovery Channel does soaring

There is going to be a segment on soaring in the *Flight Path* aviation series on Discovery Channel.

The program is supposed to air early 2001 but is not set at this time. Monitor *www.exn.ca* for the *Flight Path* series schedule.

Current SAC membership (13 Nov)

Club	Membership 90-99 avg	2000 total	% avg
ASTRA	10	8	80
Air Sailing	26	16	62
Alberni	13	14	108
Base Borden	14	5	36
Beaver Valley	12	10	83
Bluenose	36	33	92
Bonnechere	9	6	67
Bulkley Valley	9	1	11
Central Alberta	10	10	100
Champlain	62	61	98
Cold Lake	23	17	74
COSA	40	31	78
Cu Nim	62	65	105
East Kootenay	15	14	93
Edmonton	63	40	63
Edm. Gliding Centre (cadets)		3	100
Erin	32	13	41
Gatineau	88	94	107
Grande Prairie	10	14	140
Great Lakes	10	11	110
Guelph	28	33	118
London	40	26	65
Montréal	101	99	98
Outardes	27	28	104
Pemberton	11	7	64
Prince Albert	11	16	145
Québec	42	46	110
Regina	31	22	71
Rideau Valley	36	28	78
Saskatoon	15	18	120
Silver Star	10	14	140
SOSA	135	167	124
Swan Valley	6	2	33
Toronto	19	23	121
Vancouver	93	86	92
Winnipeg	67	71	106
York	87	112	115
Non-club	15	27	180
totals	*1318*	*1291*	*98*

The Mont Valin, Rideau Gliding, Westman, and Wheatbelt clubs have either dropped to zero in 2000 or have officially dissolved.

FAI badges

Walter Weir

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

The following badge legs were recorded in the Canadian Soaring Register during the period 9 Sept to 7 Nov 2000.

DIAMOND BADGE

95	GE (Tim) Wood	SOSA	World # 6513

GOLD BADGE

292	Paul Hajduk	Vancouver

SILVER BADGE

932	Chetan Bagga	Vancouver

***DIAMOND DISTANCE** (500 km flight)*

Willem Langelaan	SOSA	559.6 km	DG-800S	Uvalde, TX
GE (Tim) Wood	SOSA	501.0 km	LS-3A	Invermere, BC

***DIAMOND GOAL** (300 km goal flight)*

Willem Langelaan	SOSA	559.6 km	DG-800S	Uvalde, TX
Paul Hajduk	Vancouver	302.7 km	Jantar	Invermere, BC

***DIAMOND ALTITUDE** (5000 m gain)*

Darwin Roberts	Cu Nim	5530 m	HP-16	Cowley, AB

***GOLD DISTANCE** (300 km flight)*

Paul Hajduk	Vancouver	302.7 km	Jantar	Invermere, BC

***GOLD ALTITUDE** (3000 m gain)*

Darwin Roberts	Cu Nim	5530 m	HP-16	Cowley, AB

***SILVER DISTANCE** (50 km flight)*

Chetan Bagga	Vancouver	100.3 km	PW-5	Invermere, BC
Kathryn Burany	SOSA	60.7 km	Astir CS-77	Rockton, ON
David McAsey	Cu Nim	72.5 km	Ka6CR	Black Diamond, AB

***SILVER DURATION** (5 hour flight)*

Chetan Bagga	Vancouver	5:18 h	PW-5	Invermere, BC

***SILVER ALTITUDE** (1000 m gain)*

Chetan Bagga	Vancouver	2570 m	PW-5	Invermere, BC
David McAsey	Cu Nim	1190 m	Ka6CR	Black Diamond, AB

***C BADGE** (1 hour flight)*

2655	Peter Bayley	Vancouver	1:27 h	Blanik L-13	Hope, BC
2656	David McAsey	Cu Nim	1:32 h	Ka6CR	Black Diamond, AB

records

position vacant

The following World record claim has been approved by the FAI:

Pilot	Trevor Florence
Date of flight	1 June 2000
Record type	Free 3TP distance, **World** "World" class and Canadian Open & Club territorial
FAI category	DWG 3.1.4c
Sailplane type	PW-5, C-GLDR
Distance claimed	637.8 km
Task completed	Swansea HG launch/Moberly pit/Lakit Lookout/Mt. Seven HG launch and return
Prev. World record	591.2 km, 5 May 1999, Zbigniew Nieradka and Sebastian Kawa, Poland (joint flight)
Prev. Cdn record	607.3 km, 25 May 2000, Tony Burton (approval pending)

Frank Cwikla has stepped down as SAC Records chairman and an interested volunteer is urgently needed to replace him. The task is not too onerous but does require a familiarity with the Sporting Code and especially the ability to read and analyze flight recorder data files. We are also looking for web-knowledgeable pilots who would like to assist in the maintenance of the SAC website.

If you are interested in helping in either capacity, contact me at <*holoewen@home.com*>

Howard Loewen, SAC Prairie Zone director

It's time again to renew the Official Observer lists for all clubs. This is done every three years in order to keep my list of active OOs current and correct. The Senior OO (or CFI) of each club *must* mail or e-mail to me a list of the active OOs in their club before *any* 2001 FAI flight claims are made. Claims signed by unlisted OOs will not be processed.

Walter Weir, badge chairman

SAC SUPPLIES FOR CERTIFICATES AND BADGES

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

Please enclose payment with order; price includes postage. GST not required. Ontario residents, add 8% sales tax. Items 1–6 and 13–17 available from SAC office. Check with your club first if you are looking for forms.

ARTICLES ACVV POUR CERTIFICATS ET INSIGNES

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

Votre paiement dévrait accompagner la commande. La livraison est incluse dans le prix. TPS n'est pas requise. Les résidents de l'Ontario sont priés d'ajouter la taxe de 8%. Les articles 1–6 et 13–17 sont disponibles au bureau de l'ACVV.

Trading Post

Personal ads are a free service to SAC members (please give me the name of your club). $10 per insertion for nonmembers.
Send ad to editor, not to SAC office.
(Address at bottom of page 5 masthead)

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

single seat

Tern, CF-BWA, 195h, basic instruments, enclosed trailer. $5000 obo, Walter Mueller (780) 539-6991 or Karl at *<ksoellig@agt.net>*

1-23H-15. Ser #68, built in 1964. 2500h, standard panel, open trailer is included. Good shape with a blue & white paint scheme. Asking $US11,500. Rob Harling, (416) 923-3080 W, (416) 425-6627 H, e-mail *<harnai@pathcom.com>*.

ASK-14 motorglider, 851h – engine 137h, good cond, 28/1, launch for pennies. Gehrlein metal trailer. $US15,000 obo. Willi Terpin (250) 365-8378.

HP-14T, 1400 h, good condition, full ilec SB8, Delcom radio, ELT, chute, A8A O_2 system with 2 bottles, Scott mask with mic, new hydraulic disc brake, very complete, easy towing trailer with new tires. For photos see *<www.soaridaho.com/Schreder/HP-14/C-FAXH>* Asking $US12,000. Mike Thompson (604) 534-8863, *<thompson_foundry@telus.net>*.

Std Jantar 1a, C-GXTS, 540h, all ADs done, no damage, basic instruments, ATR 720A transcvr, boom mike two total energy varios with audio, trailer and ground handling gear, wing & canopy covers, solar charger, turn point camera, chute. $28,000. Al Sunley (780) 464-7948.

RS-15, C-GAYN, '74, 1200 h, Cambridge with audio & Mark 4 director, O_2, Radair 10 radio, Schreder trailer. Imron paint fall 1990. Based at York. Asking $14,500 (about 2.5 L/D points/$1000!) Alf Waymann (905) 451-2427.

LS-4, C-GTGO, best kept LS-4 in country, winner of five Cdn titles, built '84, approx 1200h, all ADs, no damage, never left outside, 4a landing gear mod, Peschges computer, Dittel FSG 50 radio, Komet trailer. $US29,950. Jörg Stieber, (519) 662-2840 ext 224, fax (519) 662-2421, *<joerg@odg.com>*

SZD-55-1, C-GENQ. New, with basic instruments. FOB London, ON. Trailer available. $US36,000. Ph/Fax (519) 461-1464.

two seat

2-22, CF-PLT, 1950 h, shown in Dec/Jan 1999 *free flight*, great trainer. Reconditioned '99, fresh paint. Asking $10,500. Dawson Campbell, (705) 686-3672.

2-22, C-FAZG, 2000 h, 1970. Hangared, new fabric in 1993. Basic instruments. Club aircraft, BSI. Sturdy trainer, trailer available. Erik Hagberg, evenings (613) 584-4636 *<Fitz@magma.ca>*

2-22E, C-FACS, 2093 h, ex-Air Cadet glider. Well maintained with open trailer, partners lost interest, $8000, Open to offers, contact Bernie Boehnke, (250) 765-8154, *<berniehpb@hotmail.com>*

Krosno - wanted, in good condition for MSC. Contact Roly Niklaus at (514) 685-2739 or George Couser at (450) 655-1801 or *<george.couser@sympatico.ca>*

misc

PIK 20B or D canopy, factory new. $1500 obo. Willi Terpin (250) 365-8378.

Glider trailer, suitable for 15m or Std class. Interior dimension - 26' long. Aluminum tube style, designed and built by SST. $3000 obo. Larry Springford (519) 396-8059, *<larry_springford@hotmail.com>*

HP-18, unfinished kit or repairable damaged ship wanted. Chris (519) 578-8044.

magazines

SOARING — the monthly journal of the Soaring Society of America. Subscriptions $US43. Credit cards accepted. Box E, Hobbs, NM 88241-7504. (505) 392-1177, fax 392-8154. *<74521.116@compuserve.com>*

NEW ZEALAND GLIDING KIWI — the monthly journal of the New Zealand Gliding Association. $US32/year (seamail). Private Bag, Tauranga, NZ. *<john@roake.gen.nz>*

SAILPLANE & GLIDING — the only authoritative British magazine devoted entirely to gliding. Bimonthly. BGA, Kimberley House, Vaughan Way, Leicester, LE1 4SG, England. £17.50 per annum. fax 0116 251-5939 *<bga@gliding.co.uk>*

AUSTRALIAN GLIDING / SKYSAILOR — bimonthly journal of the Gliding and the Hang Gliding Federations of Australia. $A40.50 surface mail, air $A55. Payable by Bankcard, Visa, Mastercard. Box 1650, GPO, Adelaide, South Australia 5001. fax (03) 9379-5519. *<AdminOfficer@gfa.org.au>*

MOTORGLIDING INTERNATIONAL — bimonthly jointly published by the Soaring Society of America and the British Gliding Association. $US34 per annum, (505) 392-8154. *<info@ssa.org>*

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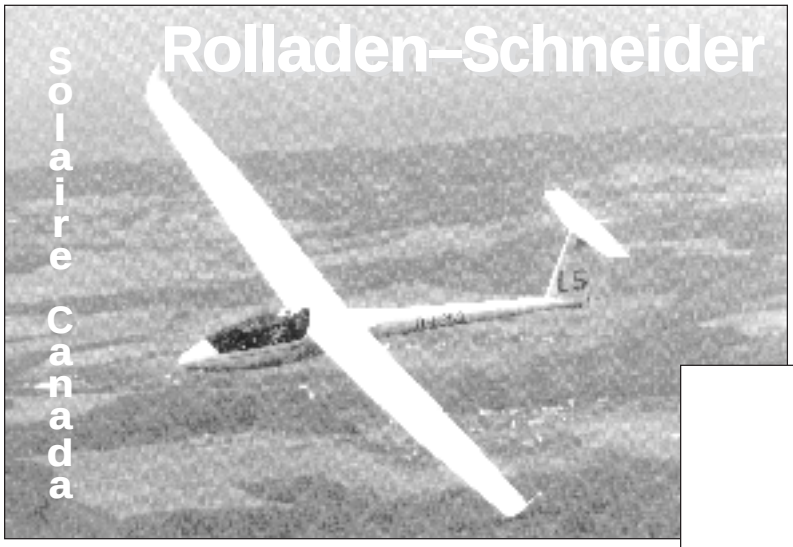
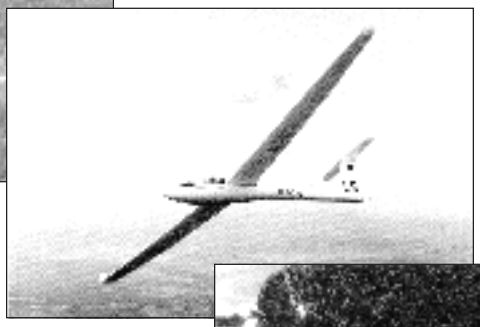
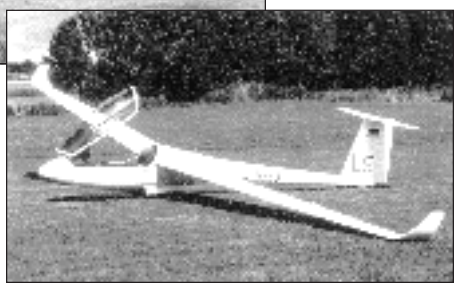


We are pleased to announce **Solaire Canada** as the Canadian representative for our line of competitive racing and club gliders.





• *LS6* The LS6-c can be ordered with many wing configurations: 15 Metre, and now 18 Metre class with full 1156 lb wingloading, both with or without winglets, etc.

• *LS8* The LS8 is not only a winner in the Standard Class, it can now be ordered with the 18m extension tips with about a 48:1 glide ratio at a very affordable price.

• *LS9* The LS9 self-launching 18m glider has reached production status and will satisfy the self-launch crowd with unequalled performance and flight qualities.

• *LS10* We anticipate the new LS10 as the new 15 Metre racer, also available in 18m wingspan in the spring of 2001, and are confident that it will meet or exceed your expectations.

• *LS4* The well-known LS4 is still in production and more than 1000 are built now. The newest version LS4-b now has automatic control system connectors. This glider with its high performance, beautiful and easy handling qualities, together with a very affordable price, makes it the ideal glider for the private owner or clubs alike.

For more information, prices, options, and delivery positions, please contact Ed Hollestelle at:

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solairecanada@sprint.ca