1/02
Feb/Mar

free flight • vol libre

Priorities

David McAsey, Alberta Zone Director

A few apparently unrelated incidents in my experience as a glider pilot actually share a common thread.

This spring I got a rude shock. My elderly wooden glider flunked its airworthiness inspection, and the mechanic's estimated minimum repair cost was well beyond the reach of my budget. It seemed that my glider would be grounded, at least for the season and possibly permanently.

I talked about this to friends in two Alberta clubs. One suggested I get in touch with a member who was a meticulous craftsman and had considerable experience in working with wooden aircraft. Another couple of pilots, including one I'd never met, steered this man on to an economical source of the approved aircraft grade wood needed for the repairs. The upshot was a superb repair that I found affordable, and also met Transport Canada airworthiness requirements.

A couple of days ago I received information on rates for SAC insurance. I knew that rates would increase, but was cheered that the increase was modest, considering the astronomical losses that the aircraft insurance industry suffered last year. And I also know that I'll be insurable next year, and that I don't have to fear the fine print in my policy.

Next summer I'll probably change my aircraft's licence classification to owner-maintained.

What's the common thread? All three of these events have a better outcome because of SAC. Two, insurance and owner maintenance, are partly or wholly due to the continuing dedication of SAC committees and our executive director. The third was made possible because of the informal brotherhood of SAC members.

As a retiring member of the board, I'm pleased with the many ways our association has contributed to the soaring movement. As one of more than 1000 members, I'm acutely aware of the benefits I receive. Many are beyond the obvious ones such as *free flight* magazine, flight training and safety systems, badges, awards, and lobbying to assure there will be a future for gliders in Canada's skies.

And all of these services wouldn't be possible without scores of dedicated volunteers throughout Canada serving on committees and helping in other ways, both formal and informal, to make SAC a truly effective organization.

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Le journal de l'Association Canadienne de Vol à Voile

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Cover

A great day during the 1997 Cowley Summer Camp when a group climbed 8364 foot Centre Peak to the soaring cairn and a few pilots did fly-pasts. The view is northwest. The photographer is not known.

DEPARTMENTS

Defining records

What determines the evolution of world record types?

Tony Burton, IGC Sporting Code committee member

THE INTERNATIONAL GLIDING COMMISSION (IGC) Sporting Code committee, chaired by Ross Macintyre in the UK, receives a lot of comment on the nature and extent of world records. Changes in the recent past were the elimination of motorglider and multiplace records as separate record classes and the addition of the 15m, Ultralight, and World classes.

The latest change was the introduction of the addition of "free" distance record types, that is, flight attempts not having pre-declared turnpoints. These originated with a paper by Hans-Werner Grosse (Germany) and was followed up with a proposal to the IGC by Herbert Pirker (Austria). Two arguments brought forward in support of these types of records were:

- the pilot can't know ahead of time the micro-conditions at pre-declared turnpoints at the time of arrival — it is supposed to be a soaring record attempt, not a weather forecasting accuracy record attempt.

- why should a record performance be limited by an under-called declaration — would a long jumper be required to state the length of a jump attempt and not be credited with a longer effort?

As a result, the IGC first introduced the Free Out-and-Return Distance, and later, the Free 3 Turn Point Distance record types to see how an undeclared course record would be flown in practice.

Following the introduction of these record types, there has been pressure to fill the "hole" in free records definitions by adding a Free Triangle Distance record to the list. Pirker wrote: "For logical reasons and to complete the system of free distance world records we should introduce the Free Triangle Distance world record. It is just not fair that pilots who favour the free distances have no chance to fly free triangles, whereas pilots who favour the predeclared flights can fly the predeclared triangle world records."

Personally, I saw problems with this record type for practical reasons. To actually fly an efficient free triangle, the pilot would have to have a computerized map in the cockpit to give him ongoing information on the allowed territory of "legal" turnpoint areas remaining as the pilot proceeds on course. If the pilot didn't have such software, there would have to be so much map reading and measuring as to impair one's soaring abilities, I think. If the pilot simplifies the navigational problem by pre-selecting areas, then the flight is no longer the really "free" triangle that Pirker envisions — it has become, in practical effect, pre-declared again.

Ross, having a lot of international background in sporting matters, does not support the concept of free triangle records either, on the philosophical grounds of what the essence of a world record is. He wrote:

"I do not support the addition of free triangle distance for two reasons. The first is that I consider that by not declaring the flight, the 'value' of it as a test of the glider pilot's skill is diminished, thereby making it less of a 'notable event', and is therefore less worthy of being classed as a world record alongside the 'declared' flight. ⇨ p19

The SOARING ASSOCIATION of CANADA

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

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

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

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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.

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Sporting committee 2001

Jörg Stieber, chairman

Items completed

Rules for National Championships 2001
The rules were fundamentally overhauled after extensive discussion on the Roundtable. Serious shortcomings had to be addressed. Ongoing consultation with the CAS executive, the developer of the scoring software, and the CD for these Nationals made it possible to develop a well-balanced set of rules which stood the test of the Nationals without the need for clarification or revealing holes. The essential changes/additions to the rules were:

- New scoring formula for assigned speed task to remove a discontinuity which resulted in unrealistic penalties for not completing the task. The new formula is similar to those used in international competitions.
- Time Distance Task (TDT) introduced. This task form has been well accepted. It allows very flexible task setting for assigned as well as pilot selected tasks and can accommodate a wide range of handicaps.
- Aero-retrieves permissible. This change removes one obstacle to participation in competitions.
- Full inclusion of motorgliders (sustainers as well as self-launchers). This broadens the field of potential competitors.
- Start circles simplified, providing more flexibility to accommodate individual circumstances at different competition sites.
- Finish line replaced with a finish zone, covering the airfield, for improved safety. This change brings closure to the discussion whether or not a landing at the contest site should be counted as a valid finish.
- Penalty guide introduced. This change will result in a more consistent application of penalties for comparable offences but still leaves discretionary room for the CD to fit the penalty to the circumstances.
- Sailplane handicap list updated to CH2000.

New scoring software
Parallel to the competition rules, new scoring software was developed. The software integrates analysis of the flight traces with the calculation of scores. Manual transfer of trace data into the scoring software has been eliminated along with all associated errors. The Sporting committee thanks Nick Bonnière for his contribution in testing the rules for ambiguities and his excellent work in writing the analysis and scoring software.

Pilot feedback session 2001
As it has been the tradition during previous Nationals, the Sporting committee held a meeting of competition pilots during the Nationals to receive feedback on current issues. The discussions centred around innovative scoring systems that reduce the incentive for flying in gaggles and alternative team selection policies to give Club class pilots better access to international competitions. Minutes of the meeting were posted in the document section of the SAC website.

Seeding list 2001 The Competition Seeding List for 2001 was updated based on the results of the 2001 Nationals and published on the SAC website.

Evaluation of alternative scoring systems
Based on Jim Carpenter's input, the Grand Prix scoring system was tested during the SOSA Mudbowl and the Ontario Provincials. The committee finds the Grand Prix scoring system not suitable for Canadian competitions for reasons outlined in the *free flight* article "Grand Prix is not the answer". The objective of eliminating the advantage of gaggles can be achieved using the TDT scoring system.

27th World Championships
Dale Kramer, this year's National Standard Class Champion was the sole Canadian contestant at the 27th World Championships in South Africa. The Sporting committee congratulates Dale to placing among the top 10 on five out of the ten contest days and in particular to his third place on Day 3.

Nationals 2002 The question whether or not to hold the 2002 Nationals in Uvalde, TX was discussed during the Pilot Feedback session. Strong opinion on both sides ⇨ **p22**

"It took far longer to overtake you..."

Winners rarely relate interesting howidunnit stories; the last place pilot, however ...

Seth Schlifer

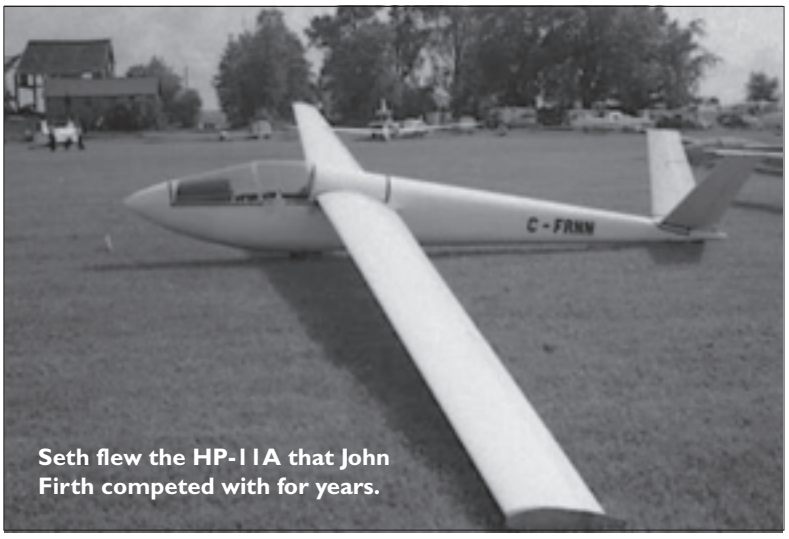
HAVING BEEN AWAY from the soaring scene since 1987, after eleven years of flying and over 1300 hours, only to trade it for a heavy involvement in hang gliding, and later still, ultralights of all things (I know, ... stop groaning), I dusted off some old notes of mine relating to tasks which I flew during the 1986 Nationals from my old home club, York Soaring. I had intended to convert these terse, point form notations and logbook references into story form someday. With the tireless editor beating the bushes for space-fillers between the ads of the latest free flight, the time is now.

THE SCENE IS DAY 2. I was unsuccessful in wrangling permission to use York's Schweizer 1-35 for the event. Their decision to refuse me was likely fuelled by the memory of my having inflicted damage to the glider during an intentional groundloop, trying to land in a schoolyard on the third day of the '82 Nats at SOSA.

To my relief, two days before the contest, fellow club members Kevin McAsey and Tim Woods offered the use of their recently purchased glider. Accepting no rental fees, they good-naturedly made it clear that they expected me to go out and win first place. Not wanting to explain that there'd be little chance of me winning, I eagerly accepted their generous offer. There was little chance of winning for the combined reasons that this was to be only my third contest, after the previously mentioned '82 Nats, and the '84 Ontario Provincials (which had the last two of its three days rained out). The other factor to consider was that my borrowed mount for this upcoming event was far from state-of-the-art, having been designed some 24 years previous. I was to fly an HP-11A which Dave Webb and Ben Price built in 1965. They flew it for awhile until selling it to John Firth in 1968.

My only hope was that some small fraction of the flying skill and wisdom of Dave and John had somehow been absorbed into the molecular structure of the aluminum from which C-FRNN is comprised! After all, this machine had flown in the big desert air at Marfa, Texas during the 1970 World Championships, reached great heights in wave at Cowley and Lake Placid, and carried John Firth to many Canadian speed and distance records in years past. In fact, this was a one-of-a-kind HP-11A, in that the builders had extended the chord of the flaps and ailerons (adding 3% more wing area), incorporated a flap/aileron interconnect system, and performed much sealing and airfoil profiling work. Unfortunately, much of the wing surface filling was now cracking and bulging in spots due to its age.

Seth Schlifer



Seth flew the HP-11A that John Firth competed with for years.

Between organizing myself for the contest, adding a hitch to my car, and begging time from work, I managed time for just two flights to become familiar with the glider and its instruments. Knowing the ship had tip extensions which would bring its span to 17 metres, some of the 15 metre guys were pressing me to use them and fly as an Open class entry. Without one more long span ship, there were not enough to make an Open class field. They openly feared the prospect of having to compete against the big birds (notably the Nimbus 3) which would then be forced to enter the 15m class under handicap rules. I agreed, and took one flight with the extensions as practice. But, after tying the ship down, someone pointed out to me that one of the tips was not mounting solidly, so at the last moment I reluctantly notified the contest officials that I was back to being a 15m entry.

On Day 1, I flew 207 kilometres of the 227 kilometre triangle task. My crew eventually found me, despite my poor directions, and after derigging in the dark by lantern and moonlight (never having derigged or trailered the ship before) we arrived back at the field at 1:30 am. In fact, a dozen pilots who had landed some 50 kilometres behind me arrived home much earlier!

I awoke on Day 2 after just five hours of sleep, and felt pretty tired. The task for Standard and 15m was a 206 kilometre quadrangle: north 37 kilometres to Dundalk, then 60 west to Mildmay, 50 south to Monkton, and finally, 59 kilometres ENE to return. The forecast conditions were for thermal strengths of 4–5 knots. Achieved climb rates were mainly 2–3 knots plus. A light north breeze provided no real challenges. I went through the unlimited height start gate at 4000 agl at 2:48. As I was still becoming accustomed to the unfamiliar metric ASI scale, and learning that the total energy vario had some quirks, I relied somewhat on my "seat-of-the-pants" indicator during the first leg.

Conditions could almost support pure dolphin flight without losing height, even at my light dry wing loading of around 6 lb/ft ^{2}. I made just two circling stops of about four turns each. The rest of the time was spent dolphin-

ing and bobbling along nicely. I shuddered to think of the field day the boys in the ballasted glass birds were having in these conditions! At 3:20, I took my turnpoint shot from 3500 agl, having arrived in company with Chris Wilson flying a Mosquito, some 100 feet above me. My speed on this upwind leg averaged just over 69 km/h.

I began the second leg by heading 30 degrees to the north of track at first. Chris later asked my reasoning behind this deviation. I had noticed some thin cirrus ahead on course which seemed to be increasing. I just wanted to follow the courseline westward, but shift it upwind a couple of kilometres as insurance against the right crosswind in case of softening conditions later on the leg. This would prevent the situation of being drifted southward, and downwind of the courseline if forced to circle in weaker conditions. This area is noted for lake effect incursions from the north anyway, and so I viewed the minor diversion as a worthwhile investment.

The second leg presented few cu, but fortunately, the thermals outnumbered the clouds. Although this leg was mostly blue, I discovered that progress went well by varying airspeed between 80 and 130 km/h, and just bumping along. With each pull-up, I experimented with a technique I'd been playing with. By concentrating to feel which side the lift was on, I would often bank steeply towards that side while reefing upward. The difference was obvious. It offered a stronger boost, or gust on thermal entry, and provided a most satisfying duration of time during which the nose could be held up, zooming steeply, yet with airspeed decaying quite slowly, till finally bunting level at the top with the climb continuing. The effect during the zoom felt as though I was carrying water.

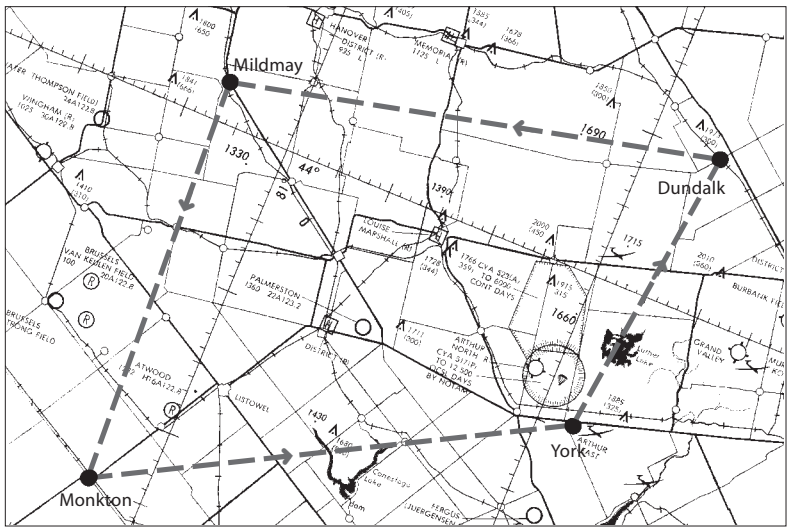
Some 40 kilometres along this leg, I stopped at 3000 in a strong bit, with the notion to gain 500 feet before continuing on. During my first circle, I spotted someone approaching from about a mile back. As I completed a second circle, he passed about 150 feet below without stopping, and I recognized the pilot as John Firth, flying a DG-400. I completed a third turn, then straightened out to follow. As expected, poor NN and I were soon choking on his dust as he gradually pulled away into the hazy distance.

Soon the call of nature was upon me, and I was eager to try my nifty new relief system. I'd scrounged up several feet of clear polypropylene tubing, and a small funnel. The funnel was simply routed up past my shoulder and over the wing spar behind me, and then down into an empty plastic milk jug secured down behind the spar. I took a long drink of water, then got the glider settled down into a hands-off trim at about 100 km/h. Flying hands off, I corrected any banks with that nasty, awkward rudder bar, slewing the ship to level the wings. As I unzipped, and generally got everything sorted out and in position, the glider sort of continued waffling along, heading in roughly the right direction. Everything was situated, and the moment of truth had arrived. Ready ... set ... go! Something was terribly amiss. I checked the system, and finding no kinks in the tubing, simply tried again. I met with damp disappointment. I had underestimated the amount of pressure necessary to force a fluid up and over my shoulder in the semi-upright seating posture. Even scrunching lower down into the seat had no effect, because the tubing was still routed over the spar.

During my wild adventures with indoor plumbing, Stan Janicek went (if you will pardon the expression) whizzing past me in the mighty "Tinbus" (this was another Dave Webb creation made with a homebuilt aluminum fuselage and tail mated to Nimbus wings). I had to wonder what Stan was thinking as he closed from behind, observing NN weaving along like a drunken sailor! I immediately abandoned my fumblings, put all the toys away, slammed the bathroom door shut, and rushed back to the controls to give chase! I flew on for several minutes until I could no longer ignore the call of nature. From necessity was borne a leap of inspiration, and I quickly gulped the remains of my water and used the now empty container fulfil my dire need. Done! Finally, I was able to return to the real task at hand.

Some 10 kilometres later, I approached the second turnpoint at Mildmay. Here, several gliders were whirling about, taking their turnpoint photos. Among them were those pilots which had overtaken me earlier. They were now only 2–300 feet above me, and less than a kilometre ahead. I took some encouragement in this as I went in for my photo at 4 pm, having averaged 90 km/h on this crosswind leg. In the time it took me to take two photos, I looked around to discover that everyone had vanished into the haze as they headed south to Monkton. Now facing towards the sun on the third leg, the effect of the haze reduced visibility to under four miles. The haze conspired with the irregular road layout of the region, and I found this leg needed lots of attention in order to navigate the courseline.

The sky here became littered with what I call *cumulus cadaverous* clouds, and plenty of time was wasted in lots of lift that wasn't there. I felt quite out of phase with the sky here, and any lift which I did find seemed to quit soon after I arrived. What lift I managed to really work at was quite feeble, and I needed to stop and circle quite often, which of course exerted a heavy toll on my speed. The cloudscape suggested to me that I should deviate in toward the centre of the quadrilateral as I went. As a result, my path to Monkton described a gentle arc rather than a straight line. Despite the questionable conditions, and the fact that I had not had any company on this leg, there were no real surprises or scary low points. Eventually, Listowel airport emerged through the murk, and as it passed beneath the port wing, I corrected my course



about 30 degrees to the right, heading southwest, directly towards Monkton.

A short while later, I spotted Ian Grant, flying SOSA's Club Libelle. He was circling about two kilometres to my left, and slightly higher. I decided against joining him, instead continuing toward the turnpoint about six kilometres ahead, and in particular, to some cu about halfway along. Before reaching the clouds, I entered a region of weak lift which enabled me to boat along at minimum sink speed while maintaining my 3500 agl. I continued flying straight in this manner until flying out the other side of the lift just short of the turnpoint. This region of rising air was a convergence zone created by a sea breeze blowing in from Lake Huron to the west. I rounded Monkton at 6 pm, took a photo, and tip-toed back out through the same lift region as I headed home. Unbelievably, the 49 kilometre leg to Monkton had taken me two hours, which cost me dearly in speed, and was now jeopardizing my chances of even getting home.

My current homeward course brought me back to the area where I'd last seen XR and I noted that the twelve kilometre round trip to the turnpoint and back had cost me only a hundred feet without circling once. Things were looking up for a change. I craned my neck, searching along the belly of the dark cloud mass, searching for Ian, looking for a clue to a good core of lift. The lift here was quite disappointing. Scarcely more than zero sink, in fact. The cloud seemed all show and no go — no surprise really, considering the late hour. The cloud was beginning to decay, but after heading east beneath the huge cloud, I was rewarded with a weak climb a few kilometres along the way, and I tightened up in 1.5 knots of lift. Peering ahead revealed an expanse of dead looking sky, and I switched solidly into survival mode.

Circling, I probed for any indications of something stronger, but with no luck. This was the only game in town. While grinding slowly upward, my mind turned lightly to thoughts of a final glide, and so the cockpit began to resound with the sound of crunching numbers. While circling, I tried without success to ascertain the wind by watching for drift as I had become unsure of its speed and direction. Not being able to include the wind factor into my fun-with-numbers game made me uneasy. Safe to assume though, that the wind was now very light indeed. I chose to assume a 10 km/h headwind as a worst case, and tossed it into the mix. This suggested that 6000 asl was the magic number to arrive home without inducing heart failure. I needed to gain 1000 feet. In a homebuilt glider which had been designed nearly a quarter century earlier, I was teeing up to begin the longest final glide of my soaring career.

Six minutes later, just below cloudbase, I straightened out and headed for home, continuing to climb slowly as I tickled along beneath the belly of the last cumulus of the day. I had hoped to reach the fuzzy mist at cloudbase and then begin accelerating, but reached the edge of the cloud too soon. I could have gained another fifty feet or so, but feeling committed, decided to carry on. Somewhere, invisible in the distance 43 kilometres away, lay the finish gate. I was thankful I was able to retract the wheel today, unlike the gear jam of the day before! Still unsure of the wind, but going on the assumption of a light headwind, I decided to fly slightly above best glide speed, and so chose 100 km/h — it's such a nice round number! I figured that would be a speed sufficient to offset any slight subsidence, or gentle headwind, if the beast existed.

The air was glassy smooth now, and there was nothing for me to do but contemplate my past sins, sit quietly, and watch the drama unfold. While waiting it out, I thought I could hear a faint imaginary drum roll. I kept myself occupied by pouring over the air chart, and my concession road map, checking my progress against the altimeter and my watch. Eventually, this exercise revealed that no headwind existed. Go, baby, go! Passing over Conestogo Lake with 29 kilometres to go, I peered down, waiting for the light to glint off the surface as I passed, hoping to read the surface wind. If anything, it suggested a light quartering tailwind, at least down low.

Home was still not visible, but through the haze the town of Arthur soon emerged into view. A couple of minutes later, the York Soaring hangars became faintly visible, and I placed a finger on the canopy, carefully lined up with the main hangar. Continuing to freeze the airspeed at 100 km/h, what I hoped to see was the sight of the hangar gradually sinking beneath my fingertip. I soon encountered a series of thin, spread out ex-cu, and held my breath, hoping they wouldn't provide any sink as I passed beneath them. My luck held out. Several minutes later, my fingertip was ever so slightly above the hangar. This could work. We droned on like this, with me holding my head and left hand stationary to form the sightline, until it became obvious that I had the finish in the bag.

Breathing a sigh of relief, I removed my finger from the canopy and massaged my now stiff neck. I must have had a gentle tailwind component the whole way. Some folks use computers and GPS to work their final glides; I must look into that sometime! At 1400 feet, Arthur passed beneath the port wing, leaving just over seven kilometres to the finish gate. I gradually accelerated, juggling the negative flap setting as the speed increased — largely guesswork due to my lack of airtime with NN. It seemed I had underestimated the old bird, because we eventually wound up bounding along at 200 km/h for the final four kilometres. It sure made for a stylish, if noisy finish, flashing by at 40 feet before zooming to 600 to join the downwind leg at 6:40 pm. My speed over this leg averaged over 88 km/h.

The still suspect gear lowered smoothly and on final, I tossed out the anchor, as those big flaps clawed through the air, providing that nice solid sensation on final approach. Just like a whiffle ball! After rolling to a stop, I sat quietly in the cockpit for a couple of minutes. It felt good to get home. As my crew and I pushed the glider back towards the tiedown area, I began to wonder about XR. Had he finished ahead of me, or outlanded somewhere? Just then, he came whistling through the finish gate. What a delicious sound. God, I love this sport.

Unfortunately for me, I had committed a pre-start blunder by exceeding the 45 minute recognition time interval and so my speed (if one could describe 54 km/h as speed) was downgraded to 41.2 km/h. No one to blame but myself, and a mistake which won't be repeated. On the start grid the following morning, John Firth approached with a smile, saying: "Seth, I saw you out on the second leg yesterday. You were doing rather well! It took me far longer than it should have to overtake you." Although he meant the compliment in earnest, I smiled and thunk to myself ... *"Why, thank you John, I think."* ❖

Soaring in Nova Scotia

Bluenose Soaring at 25 years

by **Larry Bogan**

ONE ITEM I would love to see in free flight is a series of articles, each highlighting a club in SAC. I have met only a few members of other clubs and each time I have, it has been interesting to learn their operations and experiences. Here in Atlantic Canada we are the only SAC club and get very infrequent visits from other club pilots. So, to initiate the suggested new series, here is an outline of the Bluenose Soaring Club and our activities on the club's 25th anniversary.

Background Bluenose operates out of an old WWII training aerodrome at Stanley, Nova Scotia (N 45° 6' 2", W 63° 55' 14", elevation 95 feet). Stanley is a collection of a few homes, a church, and a community centre scattered along the secondary road #236. It's 50 kilometres north of Halifax, 30 kilometres east of Windsor, and 40 west of Truro. There is a large unit of Crown land north of the field which stretches nearly to the Minas Basin 16 kilometres to the north with no fields or public roads in between. After WWII, the provincial Department of Natural Resources used the airfield and is still the landlord. We share the field with an EAA power aircraft club, Stanley Sport Aviation.

Ours is a winch operation with no towplane. We have two winches to maintain reliability of operation as well as to provide versatility to fly at other locations. We lay out about 5000 feet of steel wire along runways 02 or 20 to launch club and private gliders. Other runways, 33 and 27, are available for alternate landings on days with strong west winds. Our training is done in two Schleicher K7 gliders with transition to one of two K8s for solo flying. We have, at present, eight private gliders belonging to club members (Open Cirrus, HP-18, Ka6E, ASW-15, PW-5, PW-6). Typical launch heights are to 1500 feet.

A little history Just after the World War II, George Dunbar and others started the Gull Gliding Club and it operated for a few years at Stanley before disbanding as members moved away. In 1976, glider pilots George Graham, Ralph Olive, and Debra Burleson brought a Schleicher K7 (C-FOZA) from New Brunswick to Stanley to form the Bluenose Soaring Club. At that time there was a soaring club in NB, flying from Havelock. Earlier there had also been soaring in the Annapolis Valley and Truro but those operations had disappeared. Originally, BSC had the use of a towplane but in a few years the club built its own winch and became exclusively a winch launch club. By 1981, a 2-22 and K8 joined OZA. In that year three members privately brought a Ka6E from Hawkesbury. In the tenth year of the club there were five club gliders, with a K8 and K7 added in 1984 and 85. Club membership had grown to nearly forty members. Throughout the intervening years other private gliders have come to Stanley. OZA was lost in an accident in the mid-90s and the 2-22 had been sold earlier. In the mid-80s the club had an Astir for a brief period and is attempting to arrange finances to again have a fibreglass glider available to club members.

Flying conditions The terrain surrounding Stanley airport is relatively flat with only a few rolling hills of 500 feet height to the south and east. The airport is 16 kilometres south of the Minas Basin (the upper end of the Bay of Fundy) and about 65 kilometres north of the Atlantic at Halifax. We fly almost exclusively in thermal lift. The weather systems move from two directions in this area. Highs and lows come from the west while lows many times travel up the Atlantic coast from the south. It is the highs from the west that give the best soaring conditions. Typically, a good day will have a cloudbase of 6–7000 feet in the early summer decreasing to 5000 late in the season. We fly through October and many times into November but ceilings are lower at 3–4000 feet by then. Because of the cool water in the Minas Basin to the NW of the field, Stanley many times is in a blue hole with cu forming to the south and SW of the field. Cu usually forms first in the centre of the province. Many times cu forming over the field moves SW and it is the wise pilot who gets into the air before they retreat too far away.

On days of light winds, cumulus will form uniformly during the early afternoon, but then about 2–3 pm a sea breeze from the Minas Basin infiltrates the area and kills lift. If one is aloft before then it is possible to move south and still have an excellent day of flying.

When the wind is from the southwest, as it is predominantly in the summer months, Stanley fares better as the air moves over more land and reliable lift stays over the airport. Particularly interesting conditions develop when an Atlantic sea breeze reinforces the

Some of the private ships at the Bluenose clubhouse.

southwest wind. The Atlantic sea breeze will push to the Stanley side of the province and encounter the Minas Basin sea breeze midafternoon. When this happens an east-west convergence line develops parallel to both coasts from Windsor to Truro. This is capped with a continuous cloud-street with strong lift. Sometimes, there is a dramatic difference in cloud height from south to north. As one flies under the higher clouds (usually to the north) there is a wall of cloud hanging below the sailplane to the south. On good days this convergence can last for hours and often be relatively stationary. On other days, it will migrate north and then dissipate or simply disappear as the breezes die.

Other areas of Nova Scotia do have ridges and hills but none of any significant height. BSC members have flown ridges in Cape Breton and the Annapolis Valley. The Valley is closer to Stanley and usually an alternate site of flying in the fall. We take one of our winches and a few gliders to Waterville airport and get permission to fly from an agricultural field near the North Mountain ridge. This ridge rises abruptly 500 feet above the valley floor and runs east-west. Since this requires a south or southeast wind for good ridge lift, the associated weather is many times turning inclement when the gliders are aloft. We have successfully flown the valley ridge several years but not every year.

BSC members who live in the Valley know that wave lift also occurs since the classic cloud structure has been seen during brisk north winds. But since we have no towplane this opportunity has not been explored. On one occasion at Stanley, a tertiary wave from the eastern end of the North Mountain lifted a BSC pilot from a thermal at 3500 feet into wave lift and he climbed to 8000.

Since we rely on a winch launch that drops us at 1500 feet over the airport every time, BSC pilots pride themselves in being able to find a thermal quickly and stay with it until the sailplane is high enough to head for stronger updrafts. As with most clubs there are "house thermals" that sometimes save the day. Pilots who want to fly for hours soon learn to never leave lift no matter how weak when low.

Flying conditions are such that from time to time long cross-country flights are possible. We are restricted by the geography of the province which is long and narrow, surrounded by water. A couple of members have flown 300 kilometre triangles and once Tom Foote achieved a height of 12,500 in wave over a cumulus cloud. Members at times have flown to New Brunswick and even to Prince Edward Island (see *free flight* 6/94). Few members fly competition and we have no local event. A BSC member, Charles Yeates, flew in the US World Class Nationals in Georgia in 2001 and achieved a third place.

In order to experience other types of soaring conditions, a few members have towed their gliders long distance to fly at Ridge Soaring in Pennsylvania; Sugarbush, VT; Baie St-Paul in Quebec; and Golden, BC. This year BSC member, Charles Yeates (with member Dan Dawson), towed a PW-6 thousands of miles over the USA and Canada, flew in a variety of conditions, and demonstrated its capabilities. It is during these trips that our members gain valuable experience by meeting and learning from other soaring pilots in a different flying environment.

Stanley airport and facilities

Bluenose maintains a simple clubhouse with kitchen, bunk room and sanitary facilities near the flightline. The club has a club computer used for keeping records and accounts as well as down-loading GPS tracks. There are also open-sided hangars for the club gliders, a workshop and garage to store vehicles. The latter buildings are WWII vintage. The old big green hangar that is typical of such fields and so valuable for aircraft storage and repair has a leaking roof. With no funds for repair, the Department of Natural Resources is going to have it torn down. Private gliders are stored in their trailers near the clubhouse where there is also limited space for camping.

All BSC sailplanes have radios installed and are used for launch coordination as well as communicating with traffic in the Stanley control zone and Halifax Terminal. We also have radios in the winches, wire retrieve vehicle and for a base station. Stanley is within the Halifax control zone and BSC pilots are required to monitor the terminal frequency when above 2900 feet over Stanley and outside the 5 nm radius of the field. BSC has negotiated a CYA zone north and west of Stanley up to 5000 feet which can be activated by phone on the day of use.

A section of the Moncton VFR Navigational Chart showing the area Bluenose Soaring flies in. Stanley and Waterville airports and the North Mountain are labelled. Halifax airport is shown with its control zones and the "Bluenose Block", CYA753.

A typical year's operation

BSC operates a ground school during the winter using the Halifax education system's continuing education branch. Several of the BSC instructors teach various sections with one coordinating the effort. In a typical year we will have five or six students interested in taking up soaring plus a few just interested in learning about the sport. In late May around Victoria Day, we have a full week of flight training. We schedule in-

structors, winch drivers, and managers for each day, then provide training for the new students in the morning and evening. During this time the student also learns the management and safety aspects of our field operations. We use the afternoon period for the licensed club members who wish to soar. By the end of the week one or two students may have gone solo but usually several more weekends of flying are required to get all the students solo.

Training continues throughout the year using the weekend duty instructors. We schedule crew for both weekend days and holidays throughout the soaring season. Weekday flying occurs whenever soaring conditions are good. We maintain an internet listserver to communicate quickly and arrange soaring at these times. This server also provides a medium for discussion of club policy, operations and news throughout the year — almost every BSC member has an e-mail address. Equipment maintenance is handled by member volunteers who see that necessary repairs are done.

BSC offers introductory flights to visitors interested in experiencing soaring (or gliding on non-soaring days), and during the Labour Day fly-in at the Stanley Airport devotes the weekend to providing visitors flights. Usually we move a winch and a few gliders to the Waterville airport in the Annapolis Valley in the autumn to be close to the North Mountain ridge in case conditions are good for ridge soaring. On other days we enjoy soaring over the new scenery available in the Valley. We usually close up the clubhouse and put the gliders in storage in November. During the winter months we prepare for the ground school for the next year and repair vehicles and gliders. It is also our time to have educational seminars and select new club officers for the next year.

At our current level of membership, we are flying about 800 flights resulting in over 400 hours in the air. Of these about 250 are instructional flights, 500 are solo, and 50 are passenger flights. There are typically 60 flying days during the May through November period. In the past when we had more members, there would be about 1200 flights during the year.

Other gliding in Atlantic Canada

Bluenose Soaring is the only SAC club in Atlantic Canada but there is other gliding taking place. The Air Cadet League of Canada operates a glider training operation at the Debert airfield near Truro every summer. During a six week period they train numerous cadets in glider flying with most getting a licence. Over the years a few of those young pilots have flown with BSC after obtaining their licence. Other cadets have taken training with BSC when they were not able to get into the popular Cadet training program. Recently, some of the instructors and students from the Cadet operation have formed a glider club (ACES) operating out of Debert and have acquired a winch and a Schweizer 2-22 to enjoy the sport outside the training regime. In July of this year BSC visited Debert during a fly-in open house and flew with the ACES using their winch. We are looking for more cooperation between the two soaring groups.

Our 2001 season For the first time in many years Bluenose Soaring was unable to run a ground school during the winter and as a result had only one new student member. Our total membership was down also because eleven members that we had in 2000 did not return for various reasons, and by the end of the year we had only 21 members. One of our instructors was transferred out of Nova Scotia in the mid-year. We were able to replace the departing instructor when Bluenoser Hope Graham attended SAC's Eastern Instructor School in July.

We had beautiful, sunny weather during the fly week in May with flying taking place every available day. There were no high soaring days for good cross-country flying. Over the winter the club had rebuilt and improved our primary winch and put it on a trailer. It worked marvelously well for us the whole season. The old behemoth of a truck on which the winch used to be mounted is no more. Our main effort this year was to get six solo student members to licence. The end of the flying week was marred with a hard landing accident that took one of our K7s out of commission for most of the remainder of the year. The tail was badly bent but the pilot was not seriously hurt *(accident report on page 17)*.

Usually, the training of students leads to many short flights and less soaring. A larger fraction of members were flying solo and there was more usage of the K8s. After the fly week, June was wet and not very good for soaring. The months of July, August and September were excellent for soaring. Nova Scotia had a long spell of dry, sunny and warm weather in late summer. Unfortunately, the air temperature aloft was warmer than usual and thermals only twice touched 7000 feet and never higher. Ceilings of 4500-5500 were typical of cross-country flying this year.

In October-November flying was shifted from Stanley to the Annapolis Valley. We flew from the Kings County (Waterville) airport and an agricultural field near the North Mountain ridge. On 17 November two sailplanes caught wave lift at 4000 feet and climbed to 12,500 over the Valley *(story in next issue. ed.)*. Wave had been known to be in the area but these first successful flights proved that it was accessible. On the next weekend many club pilots enjoyed two days of ridge soaring on the North Mountain. The experience of flying in new locations such as the Annapolis Valley and Debert was enjoyable for all and valuable to BSC pilots who see nothing but the Stanley airport vicinity all year.

Three BSC members spent two weeks at Sugarbush in early October for wave flying. They were successful in using wave during at least four of the days there. They were able soar as high as 18,000 feet, as long as 8 hours, and a far as 30 nm in wave. The trip was nearly cancelled when a Notam from FAA in early September cleared VFR flights only for US-registered gliders. Fortunately, effort by SSA and friends in the US got clearance for Canadian and Mexican gliders before they left.

The extended warm autumn allowed us to fly into November whereas in 2000 we closed down in late October. During the winter we will be redesigning the ground school presentation and working to improve the appearance of our older K7. All this time we will be dreaming and working toward having a good year in 2002.

For more on the Bluenose Soaring Club see the website: *<http://www.chebucto.ns.ca/Recreation/BSC/>* ❖

Nuts & bolts – sujets d'actualité en 2001

A conversation between *Jo Lanoë* & *Jim McCollum* on matters of SAC benefits and operations.

Condensé de certaines conversations entre *Jo Lanoë,* votre directeur de zone pour l'Est du Canada, et *Jim McCollum*, secrétaire de l'ACVV.

Jo: ***Insurance — could a club get a lower premium to pay if they accept a much higher deductible?***

Jim: The main reason why a higher deductible would not help that much is that in most years a small number of accidents account for the bulk of the money that the insurance company has to pay out. Thus a higher deductible wouldn't save the insurance company that much money. Additionally, as liability claims have accounted for the bulk of the money the insurance company has paid out in recent years, a higher deductible would not have been relevant to that.

Your comments are, of course, quite relevant. A $5000 deductible could be quite a risk to take for a small club, especially if it is flying older equipment. Consider a club flying, say, 2-33s, 1-26s and L-13s; one would have to question the value of hull insurance in this case if there was a $5000 deductible. Within a club there would also be the question of who would pay the deductible if an accident did occur and this could lead to acrimonious debate and recriminations — and possibly have an adverse effect on club membership.

What are the actual differences between the SAC insurance plan and alternative commercial plans, especially regarding the coverage of instructors, students and passengers in Canadian clubs?

In considering insuring outside the SAC plan, it is very important to determine exactly what the liability portion of the insurance policy covers. In particular one wants to ensure that there is adequate coverage for passengers and students in a two-place glider, since there have been some large claims where this has been an issue. Apparently many insurance policies limit this to $100,000 per claim — even though there is say $1–$2 million overall liability coverage. Not having adequate coverage in this area could expose not only the club to considerable financial risk, but also instructors and passenger-carrying pilots as well as club officials. In one recent case the club, the instructor, the CFI, and the club's board members were all named as defendants in a potential litigation case. Had the club had one of the competing aviation insurance policies, the club could have been wiped out and a number of club members could have been subject to considerable financial damage.

An article by Herb Cunningham that was published by COPA noted that many power pilots were having difficulty obtaining any insurance coverage at all. Additionally, difficulties of obtaining insurance and the cost of insurance was one of the main issues of concern discussed at a meeting that I attended with Transport Canada officials and interested parties from other recreational aviation groups. The general point here is that insurance companies have lost a considerable amount of money in the aviation area and the market for aviation insurance has become a difficult one for insurance buyers.

Assurances — un club aurait-il avantage à accepter un beaucoup plus gros montant de déductible pour abaisser le coût de sa prime d'assurances?

Un déductible plus élevé ne signifie pas que la compagnie d'assurance fera beaucoup d'économies, car le nombre d'accidents est relativement faible et ce sont surtout des réclamations portant sur la responsabilité qui ont constitué le plus gros des remboursements. On ne doit donc pas s'attendre à une grosse motivation de la part des compagnies d'assurances pour baisser leurs primes de façon significative.

D'un autre côté, le risque pour les clubs peut devenir insupportable si le déductible est augmenté par exemple à 5,000$. Un petit club qui a une flotte de vieux 2-33, 1-26 et L-13 aurait-il encore besoin de s'assurer pour la coque de ces planeurs? À qui refacturer le déductible dans le club quand l'accident est partiellement dû à la faute du pilote, ou de l'instructeur, ou du mécanicien, ou des trois à divers degrés? Faudra-t-il amender les règlements pour faire face à de telles situations? Quel impact démotivant cela aura-t-il sur les bénévoles les plus actifs et la vie au club?

Quelles sont les différences les plus significatives entre le plan d'assurance négocié par l'ACVV chaque année pour tous les clubs du Canada et les autres plans offerts sur une base commerciale, en particulier pour la protection des instructeurs bénévoles, des étudiants et des passagers?

Il faut d'abord bien examiner la portion responsabilité civile de la police d'assurance proposée. Il faut une protection adéquate pour les passagers et les étudiants des biplaces, car c'est historiquement là que les grosses réclamations surviennent. Une police peut offrir 1 ou 2 millions de protection, mais la limiter à 100,000 dollars par accident! Ce n'est plus seulement les finances du club qui sont exposées, mais aussi celles des instructeurs, des pilotes emportant des passagers, et des membres du conseil exécutif du club.

Dans le monde des pilotes d'avion de tourisme, nombreux sont les pilotes qui ont du mal à s'assurer auprès d'une compagnie commerciale, comme le témoignent des articles qui circulent à la COPA, des discussions à Transports Canada et dans des regroupements de pilotes de loisirs. On peut réussir à s'assurer, jusqu'à ce que la première réclamation arrive et que le renouvellement de l'assurance devienne problématique, sinon inabordable. Les assureurs d'aviation se plaignent qu'ils font de mauvaises affaires, et pour eux, un planeur, c'est juste un avion, même qu'il lui manque un moteur! Les assureurs ne se bousculent pas à nos portes pour nous offrir leurs services à un taux qui nous est agréable. Restons donc

Safety initiatives — what has SAC put in place to improve our safety record and insurability?

Some of the safety initiatives that SAC has undertaken in recent years, such as mandatory club safety audits, have been at the insistence of the insurance company that we be more proactive in trying to improve our claims record. Quite apart from that, we're concerned that our sport be practised in such a way that members and equipment are not exposed to undue harm.

Why doesn't SAC provide a detailed report on each accident?

There are at least four reasons why a detailed analysis of each accident cannot be provided:

1. Some accidents involve legal proceedings — and the provision of detailed analysis of accidents may compromise these.
2. In order to encourage clubs and individuals to report on accidents they are assured that any detailed information will be kept confidential. Release of detailed information could discourage reporting.
3. As you mentioned there is the workload on members of the Flight Training & Safety committee. If on-site examinations were required, expenses of the committee could also rise considerably. Investigation of accidents is really the work of the National Transportation Safety Board and Transport Canada.
4. Finally, SAC could become unnecessarily legally entangled.

What does SAC do to counter the lack of growth in membership?

With respect to number of members, a couple of background factors that should be kept in mind are:

1. The decline in recreational aviation has not been limited to gliding. At the November meeting that I mentioned, concern was expressed by representatives of all areas of recreational aviation.
2. The decline in number of soaring pilots has been world-wide. A number of countries have undertaken fairly detailed examinations of this, but the results have been inconclusive and no convincing strategies for reversing the situation have emerged. The main declines in the number of soaring pilots occurred in the 1980s. The numbers have been fairly flat during the past decade. There are, of course, a number of factors involved in the decline and many of them are interrelated. A major factor seems to have been the elimination of the tax deduction for pilot training expenses in the early 1980s — overnight this doubled the cost of taking glider pilot training and the numbers fell off dramatically. Another factor was a sharp, but short, recession in the early 80s, where a number of people dropped out of gliding and later, when the economy recovered, the numbers in gliding did not. Finally, there are background factors, such as demographic and sociological changes, reductions in disposable time, and the development of competing activities.

As you mention the major work here has to be undertaken at the club level. At the same time SAC has not been idle, either. Generally speaking we have tried to concentrate our efforts in areas where we would not overlap clubs or where there are economies of scale or which make sense at the national level. Let me mention some of them:

1. Media relations. SAC has assisted in various television productions. Generally speaking this involves putting media personnel in contact with relevant persons. An example was the program on gliding produced and shown on the *Discovery* channel. SAC has also assisted and sometimes authored articles in magazines and other publications. There are usually a couple of these a year.

unis pour amortir nous-même notre risque sur un plus grand nombre de pilotes et de clubs, et mettons nos efforts en commun pour diminuer nos risques.

Initiatives sur la sécurité — qu'est-ce que l'ACVV a fait pour améliorer notre assurabilité et notre historique de risques?

Certaines des initiatives prises par l'ACVV, comme l'imposition obligatoire faite aux clubs de mettre en place des évaluations relatives à la sécurité, l'ont été sur l'insistance des assureurs qui voulaient voir des preuves tangibles que nous prenions des actions concrètes pour améliorer notre feuille de route désastreuse. Il n'y a pas d'argent à faire pour une compagnie d'assurance quand les réclamations qu'elle paye dépassent les primes reçues. Ou bien on nous proposait des primes beaucoup plus élevées, ou bien on sensibilisait tous les clubs à être proactifs en termes de sécurité. Les Safety Audits répondent à cet objectif mercantile, et aussi à l'objectif beaucoup plus primordial de ne pas exposer nos membres à des risques matériels et personnels dont ils oublient parfois l'omniprésence. Maintenons nos Safety Audits du mieux possible, c'est le meilleur investissement pour la sécurité.

Comment se fait-il que l'ACVV ne fournit pas des rapports détaillés sur chaque accident?

Les raisons ne manquent pas:

1. Certains accidents impliquent des procédures légales qui empêchent une telle divulgation.
2. La formule des Safety Audits encourage d'en dire le plus possible tout en préservant la confidentialité. Utilisons plutôt cette information pour nous éduquer sur des erreurs, pas pour pointer du doigt des individus facilement identifiables.
3. S'il fallait que l'on demande aux membres de la commission sur la formation et la sécurité d'aller faire des enquêtes sur le terrain, quand donc ces volontaires pourraient-ils voler, et qui accepterait de payer pour les dépenses encourues. Ne dupliquons pas le travail de Transports Canada et du Bureau de la Sécurité et des Transports.
4. Voulons-nous vraiment que l'ACVV s'implique légalement dans l'appréciation des causes de chaque accident? Utilisons plutôt ses ressources humaines limitées à nous obtenir année après année les moins mauvaises conditions pour nous assurer sur la responsabilité civile.

Que fait l'ACVV pour contrecarrer la stagnation du nombre de membres actifs?

La stagnation ne se limite pas au vol à voile, et elle est mondiale. En vol à voile, le déclin a commencé au début des années 80, au moment de l'élimination de la déduction de taxe pour la formation de pilotes (ce qui a doublé le coût de formation instantanément), puis s'est stabilisé dans les années 90. Les circonstances varient d'un club à l'autre, et certains clubs s'en sortent mieux que d'autres car ils sont plus entreprenants. Encore faut-il qu'il y ait assez d'instructeurs bénévoles pour faire face à un accroissement de clientèle.

L'ACVV fait des efforts en direction de problématiques communes à tous les clubs du Canada, et laisse aux clubs le soin de compléter par des actions spécifiques à leur bassin régional de clientèle.

2. There is the marketing paper by John Broomhall which you mentioned. John's booklet probably needs some updating.
3. SAC has arranged for the production of a *PowerPoint* slide presentation. This is available free from SAC, however, it is currently only available in English — it was produced by some volunteers at the Gatineau club and provided to SAC free of charge. A club can modify the presentation to suit its own purposes. Gatineau uses the presentation for promotional events.
4. SAC has posters that can be overprinted by a club to add club information. These are in colour and are available free of charge.
5. In cooperation with DND and the Air Cadet League of Canada, SAC has taken a number of steps to encourage cadets to join clubs. The number of cadets in SAC has jumped from 6 only three years ago to around 75 this year.
6. SAC regularly receives inquiries about where to soar in Canada. Often these occur because of the SAC website. In responding, the organization provides information about the closest clubs (contacts, location), general information about soaring (costs, training, etc.) and often a complimentary copy of *free flight*.

Generally speaking, clubs have not taken advantage of promotional materials that SAC has available.

What is the return on the investment made by SAC when they offer free membership to Air Cadets — could any club in Canada retain Air Cadets after their privilege of free SAC membership has expired?

Recall that we have around 75 Air Cadet members, who do not pay SAC fees. It appears that we will have around 1350 members this year. The odd membership is still straggling in.

Here is an example to consider. There were eight cadets in the Ottawa region who graduated from the air cadet glider pilot program this summer. The Gatineau Gliding Club sent a letter to each of them, inviting them to the club for a "complementary flight" in a higher performance glider (almost anything is higher performance than a 2-33). The result? — six out of eight joined the club. Any club could try the same thing.

As you say, for younger people it seems important to have a critical mass. At GGC we ended the season with twelve teenagers — out of a total pilot membership of 98. They were very enthusiastic, often washed the gliders and had the flightline operational by 7:30 some Saturday mornings! We trained several from the beginning through to solo and some were even flying the L-33s by August.

Why is SAC keeping our magazine in paper form, when more and more people have access to the Internet? This could save a lot of money!

We have looked into this issue in some detail. The question of not sending *free flight* to those that are willing to receive it by e-mail is an all-or-nothing proposition. Going half-way would actually increase our costs. This is largely because of the structure of postage rates. If our mail distribution drops below a certain level, we would be obligated to use first class postage, and put *free flight* in envelopes for those who still wanted a hard copy. This would more than wipe out any savings related to the lower number of copies mailed, unless the number of mailed copies fell to a very low level indeed. The required level is so low (I seem to recall under 300) that printing the magazine would be called into question. The conclusion seems to be, either you print it and distribute as we currently do, or you do not print it all.

1. Relations avec les médias à la télévision, dans les magazines et autres publications, une à deux fois par an, principalement en anglais. Les clubs francophones sont mieux à même de faire des actions similaires à leur échelle locale, mais nous ne demandons qu'à les aider sur des projets spécifiques.
2. Le document produit par John Broomhall (Alberta) est une excellente source d'inspiration pour promouvoir notre activité. Il suffit là encore d'adapter ses recommandations au niveau local.
3. L'ACVV a favorisé la production d'une présentation *PowerPoint* préparée par le club de Gatineau. Elle est disponible gratuitement auprès de l'ACVV.
4. L'ACVV dispose d'affiches en couleur qui ont un espace pour des surimpressions locales. L'ACCV les offre gratuitement aux clubs.
5. L'ACVV encourage très activement les Cadets de l'Air à joindre les clubs de vol à voile. Résultat: leur nombre est passé de 6 il y a trois ans, à 75 cette année. Sont-ils allés dans votre club, les avez-vous bien reçus, qu'avez-vous fait pour les garder? Les jeunes, c'est notre relève.
6. Le site de l'ACVV renvoie aux clubs locaux.
7. L'ACVV a de nombreux matériels promotionnels qui dorment sur les tablettes à Ottawa. Demandez-les.

Les Cadets — l'ACVV leur offre la gratuité. Est-ce un investissement rentable? Comment les garder après que leurs privilèges ont expiré?

Cette année, il y a 75 membres de l'ACVV qui sont des Cadets de l'Air, sur un total de 1350 membres. Un pourcentage de 5,5%, çà commence à faire une "minorité visible". Que diriez-vous si votre club grossissait de 5% l'année prochaine? Voyez l'expérience de Gatineau. Dans votre club, avez-vous une expérience différente à conseiller?

La dynamique de groupe des jeunes est différente des "habitués de longue date". Sommes-nous prêts à les accueillir, à les intégrer à nos règles de fonctionnement de façon harmonieuse, ou nous résignons-nous seulement à les subir, allant même jusqu'à les blâmer pour nous avoir quitté à la fin de la saison.

Le magazine Vol Libre — pourquoi continuons-nous à le produire, ne serait-il pas plus économique de le publier plutôt sur Internet?

Ou bien on l'envoie à tout le monde sous forme papier, ou bien on l'envoie à tout le monde par courriel, sinon çà coûtera plus cher, le contraire de l'objectif recherché. Le volume de copies actuellement envoyé nous permet d'avoir un bon taux d'affranchissement postal, si le nombre venait à baisser, il faudrait payer le tarif de première classe.

À la table ronde de l'ACVV, la discussion a déjà eu lieu, et il y avait une forte résistance à l'envoyer par courriel, même de ceux qui sont des adeptes de l'Internet. Le coût de production n'a pas augmenté au fil des ans, autour de 27,000 dollars incluant l'édition, la publication et la distribution. L'édition et la mise en page du magazine coûte de 8,000$ à 9,000 dollars par an. Cette dépense resterait sensiblement égale si on ne l'imprimait pas. Par contre, on perdrait sans doute nos revenus de publicité. L'économie envisageable si on abandonnait la version imprimée tomberait finalement entre 12,500$ et 14,500$, soit 10 dollars par membre avant taxes, ou près de 5 dollars net. Pour une économie de 5 dollars par membre, est-on vraiment prêt à laisser tomber notre revue *Vol*

You may recall that when this issue was discussed on the Roundtable, there was considerable resistance to distributing the magazine by e-mail — even by some members who were quite computer literate, used e-mail regularly, etc. After a day in an office spent looking at a computer screen, not everyone wants to go home and read *free flight* on the computer.

The costs of producing and distributing *free flight* have been held more or less constant for a number of years. Suppose that we eventually decided to drop the printed publication, in favour of making it available on the web or distributing it by e-mail, how much would be saved? (The calculations below are a bit rough.)

free flight costs around $27,000 per year to edit, publish and distribute. The editing part runs around $8000 to $9000 a year (this includes the editor's expenses and charges for assembling the magazine). These same costs would occur whether the magazine were distributed by mail or electronically. This leaves $18,000. An additional $1000 to $1500 or so can be deducted, because I managed to negotiate lower printing and mail distribution charges in moving to a different printer. This leaves $16,500 to $17,000. Additionally, advertising revenue as well as outside subscriptions would drop to zero — if people do not advertise on our main website, why would they advertise in an electronic version of *free flight*? The reduction in revenues would be $2500 to $4000. This leaves a net savings of $12,500 to $14,500 from eliminating the printed version. SAC had 1350 members in 2001 — assuming this number were to stay constant, the nominal saving would amount to an average of $9.25 to $10.75 per member. I say nominal, because SAC fees are tax receiptable. The net after-tax savings would be around $5, or to use a more universal figure — a Big Mac.

I agree with you that a decision on this is some years down the road. A necessary, but not sufficient, condition would probably be that most members had high-speed or instant web access.

Is there a way to reshuffle the budget of SAC to further decrease costs and increase services at the same time? What has been done by SAC in recent years?

I put two articles in *free flight* around three years ago that discussed in a fairly detailed way the costs and benefits of SAC. If you look at a time series of SAC's revenues and expenses, a couple of things stand out:

1. Adjusting for inflation and taxes, SAC fees have fallen significantly during the past 15 years or so. The past two or three years they have been more or less flat — this is because the increase in fees has not fully offset inflation, but taxes have fallen — and these two developments offset one another to some extent.
2. Adjusting for inflation, SAC's total expenses have been on a fairly downward path as well. In my view it would be very difficult to cut further without seriously hampering the operation of SAC, which would ultimately, I believe, lead to higher overall costs to the soaring community.

Let me give you a couple of examples. Suppose we did not have the Ottawa office: SAC fees would unlikely have been eligible for tax receipts (we're the only aviation group that issues them), it's unlikely that we would have played an effective role in reducing or eliminating various TC fees, and it is likely that we would be faced with a more hostile regulatory environment.

Consider a private-owner at a club. The SAC fee in 2001 was $106. After tax this is around $56. SAC, however, was instrumental in eliminating the radio licence fee a couple of years ago. This saves our pilot $45 per year. Additionally, we negotiated the Class IV medical and assisted in having the medical certificate fee reduced. The cost of a Class III medical exam is around $100, perhaps a bit more, every five years and is usually not covered by government medical insurance. The medical certificate fee fell from $85 to $55. So the total potential savings on medicals is around $130 every five years, or $26 per year. The net effective cost of membership is now $106 – 50 – 45 – 26 = minus $15. That is to say, he or she is $15 better off by virtue of SAC's existence and membership in it. These calculations are only meant to be illustrative of why SAC is ultimately a bargain and on a net basis costs Canadian glider pilots very little.

Of course, a glider pilot could have the same radio and medical benefits regardless of whether he or she belonged to SAC — ie. they could free-load off the system. I do not mean to suggest that the radio and medical benefits are the main benefits of SAC to members — I do not think they are. ❖

Libre en 2002? Je crois qu'il faudra encore attendre quelques années et quelques avancées technologiques convaincantes.

Mis à part Vol Libre, y a-t-il un moyen de réorganiser le budget de l'ACVV pour diminuer ses coûts de fonctionnement et augmenter ses prestations en même temps? Qu'est-ce qui a été fait dans les dernières années?

Deux articles parus dans *Vol Libre* il y a de cela trois ans présentaient en détail les coûts et bénéfices de l'ACVV.

1. Si l'on tient compte de l'inflation et des taxes, les cotisations ACVV ont chuté de façon significative depuis les 15 dernières années.
2. Si l'on tient compte de l'inflation, les dépenses totales de l'ACVV ont elles aussi diminué. S'il fallait couper dans d'autres activités de l'ACVV, il faudrait que les clubs les reprennent chacun à leur charge, ce qui équivaudrait à une augmentation de coût à un autre endroit.

Ainsi, si on n'avait pas de bureau à Ottawa, notre cotisation ne serait peut-être pas déductible, on aurait encore moins accès à Transports Canada (on sait comme c'est difficile de savoir à l'avance ce qui pourrait menacer notre activité).

Prenons l'exemple d'un pilote privé au sein d'un club. Sa cotisation en 2001 à l'ACVV était de 106$ (environ 56$ après taxes). Grâce en partie à l'ACVV, il ne paye plus de redevance pour sa licence radio, une économie de 45$. L'ACVV a négocié la catégorie médicale Classe IV et la réduction du coût du certificat médical de 85$ à 55$. Un classe III coûte autour de 100$. L'économie potentielle sur 5 ans est donc de l'ordre de 26$ par an.

Toutes ces économies mises bout à bout font que le 106$ investi à l'ACVV revient à 106 – 50 – 45 – 26 = MOINS 15$. C'est une bonne affaire pour les pilotes de planeur canadiens, même si ce n'est pas la principale raison pour laquelle ils deviennent membres de l'ACVV. ❖

The 1st rule of safe flight

The overriding determinant of pilot safety is the quality of your decision making. Skill level, experience, quality of equipment — all those things are *not* determinants. All that those things do is determine one's upper limits. More skill gives you a higher limit, as does more experience or better equipment. But safety is *not* a function of how high your limits are, but rather of how well you stay *within* those limits.

Get a clue

I've noticed that pilots enjoy learning how their machines work and how to maintain them; they learn about weather, memorize regulations and airspace rules, and love flying stories. But they don't spend much time learning how their bodies function and how to maintain themselves.

There are sound reasons for this. First, a healthy body doesn't need much maintenance — it works well without our having to think about it. But flying an airplane is not a natural action like flirting or picking your nose, so doing it well requires study and training. Second, aircraft are exotic objects whose operation and maintenance demand education. Each comes with a manual. Our body's manufacturer provides no manual. Experts in medicine and physiology have written many "manuals", but rarely for pilots without medical training.

Most accidents — say 80% — are due to pilot malfunctions, not to aircraft malfunctions or to environmental conditions. The soft squishy thing that operates the controls is a lot more complex than the machine it operates. An aircraft is just a prosthetic bird with a removable brain. What the soft squishy part understands about itself and how it maintains itself has much to do with whether the life insurance policy gets paid off.

When a pilot does something truly hazardous, talk amongst the spectators tends to imply that the pilot was dumb, inadequate, untalented, or poorly trained — different from the rest of us, who have never done anything dumb. Well, maybe we did, once, but it was an accident, an aberration; we've learned better — we're beyond that now. I've never, ever, heard a spectator say, "Wow, that was scary!, that's something I might do."

You — yes, you, with all your intelligence, experience, good training, sound judgement, and knowledge — might do something that looks really, really, dumb some day. Not only that, there's a very good chance that if you fly enough you will, without necessarily knowing that it's happening, get into circumstances in which everything will seem perfectly proper and in control but that are very dangerous. You may crash, full of confidence. There are many different ways in which you can do this to yourself. You need to listen to clues that your body is trying to tell you that the thin edge of trouble is closer than it seems (do you feel thirsty about now?).

Daniel Johnson, from *SOARING*

Advice on getting advice

This past summer, I decided to accept Mike's generous offer to fly his ASW-19 (after checking with his partner Drew). So, cleared for takeoff, I proceeded to get some advice on this new type of airplane. It has a C of G tow hook, very sensitive on pitch and poor aileron control at low speed. Takeoff consists of partial spoilers and being very active on the rudder to keep her straight. When Mike and Drew first bought the 19, there was lots of talk around the club on the handling characteristics and great concern of ground looping on takeoff. So I proceeded to milk my fellow club members for all the advice they had to offer and it was plentiful:

"Use full back stick to keep the tail on the ground, that will keep you tracking straight until the rudder is working",

"Don't worry about closing the spoilers too soon, with our 260 hp Pawnee, you could take off with the spoilers open",

"She likes to jump off the ground, PIOs will be your biggest problem",

"Don't pull back on the stick, think back on the stick and she will take off",

"Tow in a high position, if you go on a low tow you will be all over the sky",

"Don't retract the undercarriage until after you release, the tow hook is inside the wheel well, besides the extra drag will help you keep the rope taught",

"You will lose sight of the runway when you flair ..." and, oh yeah, "... have fun!"

After a couple of delayed attempts (I did not feel 100%) I decided that my birthday would be a good day, my car had other ideas. Two weeks and one radiator later I was strapped in and ready to go. After spending a good twenty minutes in the cockpit getting familiar with all the controls (fun toys that beep and chirp), I had worked out how to squeeze my 6"- 2' frame in. Lined up for takeoff and another glider enters circuit for landing. I decided not to be rushed and we pulled back. Back on the line, I now had a glider off the side of the runway (pushed well back). I decided to leave the spoilers out until after I was past the other glider, did not want to drop a wing and 'meet' the other glider.

With full power (we usually keep some in reserve) we were quickly rolling, and I mean quickly. Full stick back, half spoilers, dancing with the rudder I passed the parked glider. Checked the ailerons, they responded well and I could feel the ship starting to lighten. Time to close the spoilers, she leapt into the air (okay, observer accounts say I was already airborne). Stick forward to correct and bounce! Wow, she is pitch sensitive, back into the air, overcorrecting and BOUNCE! Hard but no damage, with all that advice floating around in my head I forgot the most important thing of all, fly the plane. I think I experienced a brain fart that was cleared by a good solid encounter with terra firma.

After my third 'takeoff', I stabilized and flew an enjoyable and uneventful flight. When I announced joining the circuit, there was a friendly reminder to lower the wheel. It's great

to have such a supportive and knowledgeable group to draw on, but sometimes too much advice can be a bad thing. I over analyzed and forgot that I need to feel the ship and figure it out on my own.

So my advice to anyone transitioning to a new ship (especially a higher performance one): read the manual, talk to people who have flown it, familiarize yourself with the cockpit, don't rush, and most of all relax, think and fly!

David Donaldson, Great Lakes Soaring

How a heavy landing can affect your club

Dick Vine, Bluenose Soaring

THIS YEAR, A HEAVY LANDING occurred at our club, Bluenose. The glider, a K7, was high on final, the speed was allowed to decay with dive brakes full out. It bounced, dragged a wing and rotated 180 degrees. The pilot got out, then was immobilized and transported to hospital. The back injury sustained proved to be less severe than first feared and a complete recovery is expected.

Glider damage

The fuselage aft of the wing was bent downwards when the glider pancaked onto the ground. The wheel assembly was undamaged. The trailing edge of the starboard wing was damaged about 1/3 outboard of the fuselage when the wing struck the ground on the ground loop. Repairs where made and the glider returned to service three months later. On return to service, minor friction in the elevator control was noticed at full back deflection and only when the stick was vertical. This was discussed with the check pilot who could barely sense the problem and considered the matter of no consequence. The check-flight proceeded and no further action was taken. The glider was flown several times that day with no further comment.

The next day, the daily inspection team again noticed this minor friction, investigated, and determined the cause. The under-fuselage tubing which supports the skid rubber shock mounting was found to be bent upwards enough so as to rub on the underside of the elevator control tube which runs fore and aft under the seats. This contact was only observable with the stick fully back and vertical.

The impact of the accident had been on the skid and not on the wheel as was supposed, thus producing this damage. It is good to be able to report that those involved followed up on suspicion of trouble to finally find the cause.

Although the restriction of control movement was hard to notice, a further heavy landing would have made matters worse or caused another accident. The glider was again removed from service and repairs were carried out. It's obvious that the care and dedication of members have saved us from further grief caused by the initial accident, but also that more care is needed in future to be sure that gliders are

how a heavy landing ... from page 17

always in safe working order. Like most clubs we try to run a tight ship, but this is a complex process and it is easy to miss critical matters which can have serious future consequences.

Pilot seating support The club has two Schleicher K7 two-place trainers. The seats are designed to take high back parachutes. The K8 single-place seating is similar, and we also have two of these as club-owned ships. The molded plywood seat can cause back injury since the curved surface can impact the base of the spine if no parachute is worn.

The club had a member look into the use of parachutes in these gliders but we decided that since the K7s are used in training at winch launch altitudes much of the time, and changing chutes would delay the training sequence, and the correct containers were difficult to obtain — nothing was done.

It was soon realized that a heavy landing in these gliders would result in back injury so, with the urging of the SAC Safety committee, a member was asked to investigate energy-absorbing foam cushions. The history of heavy landing accidents is full of regrets that these were not available at the time — in this case we were ahead of the game.

A considerable effort went into obtaining the foam and making a set for each glider of two thicknesses for pilots of varying height. Softer foam was used for the back support. These have been consistently used ever since. In a few cases it has been difficult to prevent rearward movement on winch launch. If the cushion arrangement is correct, this can be overcome. It is important that those supervising the loading of persons into the gliders are aware of the need to get this right. This is explained to new members and the results have been satisfactory.

The back injury to the pilot in this accident might well have been extremely serious without the proper support afforded by these cushions.

Club culture

Clubs must have a plan for the future and all members strive to keep the welfare of the club in view. This will mean reducing the work required to have a happy day at the club. We can no longer expect members with family to turn up at the crack of dawn and work all day, to return exhausted and fall into bed.

Clubs must design their operation so as to reduce as much as possible the labour required to get ready and put away the gear and to launch and retrieve gliders.

The "5 Year Plan" at Bluenose has been a good guide for the improvements we have made so far. It will provide the income to build facilities which will further reduce the work and add to the comfort of members so that the members will be more current and have more fun in return for the work we do.

The need to provide soaring experience and flight time for beginners is a major problem. A winch launch requires great care in the first few minutes after the launch to find lift, centre it, and climb away. This is not easy for those with limited skills who are mind-scrambled by the departure and have less ability to recognize the nearby thermal which will get them away.

We have old, safe gliders which are inexpensive to fly, can be landed in a schoolyard, and sit in the hangar by the hour. We must design our operation to encourage morning launches which will increase skill and currency so that thermals for soaring flights will be easier to find, and promote cross-country within the capabilities of pilots with floater gliders.

I hope this report will be of value to other clubs in Canada. There has been an effort to attract Air Cadet licensed pilots into the SAC fold. For us it has had limited success, even with reduced club membership fees and free SAC fees. There may be more we can do since the induction of skilled pilots is a major work reducer for clubs. ❖

Coming Events

3-7 June **SAC Eastern Instructors Course**
SOSA. Contact: Tom Coulson (519) 651-2779, *<tcoulson@istar.ca>*.

26 Jun - 5 Jul **Canadian Nationals**
Practice 24-25 June. All classes, Hawkesbury. Info: SAC web site.

27 Jul - 5 Aug **Cowley Summer Camp**
Sponsored by ASC. Tony Burton, *<free-flt@agt.net>* (403) 625-4563.

defining records

from page 4

"For the second, I will have to take you back in IGC history for a few years as it is based back in the very concept of having world records. Some years ago, I chaired a committee charged with looking at the then current records and recommending a restructuring. We brought together many thoughts and ideas which resulted in the present records, all that is, except the free records — I'll get on to them in a moment. We went right back to the principle of what constitutes a world record. Without going into the mass of e-mail that flowed on the subject, the basic requirements of a world record were that it must be:

- the best performance in the world of a particular type of task for the class of aircraft,
- rare, and to that extent valued for both the rarity and the excellence of the performance indicated.

"It follows from this that records should be clearly differentiated from each other, that is, they should not duplicate one another. The number of classes must be kept to a reasonable minimum and the types of records should not be allowed to expand significantly. For instance a record for, say, the speed flying a two-seater glider (additional category) by a 21 year old pilot (age records) for a pentagonal course of 300 kilometre (type of record) whilst only doing right hand turns, (special restrictions) was more for the *Guinness Book of Records* than a serious gliding achievement. Obviously I exaggerate to make my point.

"Now, after the acceptance of the report of this committee and the consequent restructuring of the record list to the present categories, classes, and types of record, the proposal to have free records was brought forward. After some serious debate, it was decided to accept only a free out and return flight as a new free record as a trial. That is still the situation with the Free Out & Return record, it is still a trial. Later at the IGC meeting in Seattle in 1998, it was decided that the 3 TP Distance record should be changed to a Free 3 TP Distance record. There was little time for the meeting to consider the implications of such a move, but that was what was decided.

"The addition of a free triangle distance as proposed by Herbert Pirker at the last meeting would certainly fill the gap in the free record types available, but to my mind would go against the basic policy on World Records in that it would duplicate the current Triangle Distance records.

"A little research last year proved to me that the current Free O&R was more often than not flown as a declared flight, and two records were being claimed from the one flight. The triangle would undoubtedly follow the same pattern. Therefore there is no good reason why we should duplicate the distance around a triangle record by creating a further "free" record.

"I can see that there is a body of opinion which wants to have free records, although I personally may not agree with them ...."

At this point Ross suggested one possible alternative to the current record definitions (though it would not be appropriate to "go public" with it before it is more fully formed). Ross' opinion on record philosophy brought some comment from a proponent of free records:

... I follow your thoughts now as to why you are not happy with the amount of records that are on the market. But I think if you look from the pilot's point of view, it is very hard to beat the records of the existing classes.

Ross: That is one of the reasons we have records, they are the best performances in the world. Of course they should be hard to beat! The mere fact that there seems to be a plateau in performance in Open and 15m classes at the moment is no reason to proliferate the number of record types. In the future, who knows what advances there will be in technology that will allow records to be broken in the same way that fibreglass changed the record book from the wood and fabric days.

... The only chance at the moment is the World class and the Ultralight class.

Ross: That is true; they are new classes and not all record types have been claimed.

... I still think that there is quite a big difference between free flying and predeclared flying.

Ross: There are those who say the same about motorgliders and "pure" gliders, but our deliberations found that there was little to choose between them as far as performance was concerned, so we put them all together, as was done for two-seaters and single-seaters. For the same reason, if we have a free record, we should not also have a declared record of the same type of flight and visa versa. It devalues the record because in only a few cases does the record flight not qualify for both records. Records should be rare and, to that extent, valued for both the "rarity and the excellence" of the performance.

... I rather like having more records for marketing reasons. We also need records for public response to our sport. For the public, a world record is a world record regardless of how it was made.

Ross: To my mind, publicity is a useful but secondary benefit of record performances. The major use of a record is to measure the best performance in the world of a type of flight for the benefit of other glider pilots ....

But discussions carry on — a formal motion on the free triangle distance record has again been forwarded to the Sporting Code committee. The committee will comment on it, then pass it to the Bureau, (the "executive committee" of the IGC) to look at its policy implications while the Sporting Code committee will look at the wording of the proposal to see what detailed changes would occur in the Sporting Code and make recommendations for the full meeting of the IGC to consider and vote on.

So you see that defining new world records is *not* easy — there are historical, philosophical and practical factors. The Sporting Code committee gets a huge amount of feedback on the content of the Code and its annexes.

Comment from Canadian pilots is as useful as any and can be forwarded to the committee for its consideration (and the approval of the IGC if a proposal amounts to a change of policy). Our current International Gliding Commission delegate is Jörg Stieber. ❖

letters

free flight 6/01 a keeper

What a wonderful issue! This is a KEEPER for sure! There are almost all the reasons for pursuing this activity right there in front of us including how to stay successfully operational. How overpowering a feeling to realize, how blessed we actually are to be part of such a diverse and talented group in our soaring activity. Such caring, open-minded and varied thinking — all on a volunteer basis — acquired through individual efforts and observations is most certainly second to NONE!

I remember being moved about this before, when I attended AGMs and while listening to what was being said and accomplished by our select group of people. We deserve to survive as a sporting and a recreational activity. Our struggles to remain a viable alternative to other activities should be made easier if we *sell* the many aspects to thinking people with a genuine love expressed with "light up the world" enthusiasm.

This issue of *free flight* will help towards this end.

Harald Tilgner

SAC records

Roger Hildesheim

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(613) 838-4470, <*lucile@istar.ca*>

The following record claim has been approved:

Pilot	**Tracie Wark**
Date/Place	14 Aug 2001, Rockton, ON
Record type	300 km triangle speed, Feminine, territorial
FAI category	DFG 3.1.4h
Sailplane type	ASW-20, C-GLTW
Speed claimed	99.1 km/h
Task completed	Rockton / Mount Forest / Alymer / return
Previous records	55.6 km/h, Ursula Wiese, 1983

The following record claims have been received:

Pilot	**Spencer Robinson**
Date/Place	4 December 2001, Tocumwal, Australia
Record type	Free 3TP distance, Club, citizen
FAI category	DOG 3.1.4c
Sailplane type	Std. Cirrus, VH-GZR
Distance claimed	501 km
Task completed	Tocumwal/GPS point 35° 25.303 S, 146° 08.642 E to GPS point 34° 09.132 S, 146° 56.983 E to GPS point 33° 52.291 S, 147°17.083 E to landing at 35° 34.866 S, 145° 48.927 E
Previous record	Not claimed

Pilot	**Spencer Robinson**
Date/Place	4 December 2001, Tocumwal, Australia
Record type	100 km speed to goal, club, citizen
FAI category	SAC only
Sailplane type	Std. Cirrus, VH-GZR
Speed claimed	91.5 km/h
Task completed	GPS point 34° 58.226 S, 146° 24.136 E to GPS point 34° 10.222 S, 146° 56.597 E
Previous record	Not claimed

Pilot	**Patrick Templeton (Spencer Robinson)**
Date/Place	7 December 2001, Tocumwal, Australia
Record type	200 km triangle speed, multiplace, citizen
FAI category	SAC only
Sailplane type	Duo Discus, VH-GIE
Speed claimed	82.1 km/h
Task completed	Tocumwal / Bundure / Daysdale / Tocumwal
Previous record	79.5 km/h, Charles Yeates (Kris Yeates), 1987

2001 Records Report It was quite a busy year in 2001 with regards to processing old and new record claims. Here are the statistics:

Claims received	14	Claims pending	4
Claims approved	10		

Please review all the information contained in the FAI Sporting Code and its Annex C (the OO and pilot guide) before you attempt a record flight. Both of these documents can be found on the SAC web site and will help ensure that your claim is approved.

Looking at the current Canadian records table, there is a huge hole in handicapped Club class. This category has been created to encourage record flying in lower performance aircraft. So go for it and become famous! Fly safe, fly well, and fly often. ❖

FAI badges

Walter Weir

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The following badge legs were recorded in the Canadian Soaring Register during the period 6 November to 3 December.

SILVER BADGE

942	Ron Walker	Gatineau

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

Ron Walker	Gatineau	305.4 km	Glasflgl 304	Pendleton, ON

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

Philip Stade	Cu Nim	5420 m	Std Cirrus	Cowley, AB

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

Ron Walker	Gatineau	305.4 km	Glasflgl 304	Pendleton, ON

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

Philip Stade	Cu Nim	5420 m	Std Cirrus	Cowley, AB

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

Ron Walker	Gatineau	305.4 km	Glasflgl 304	Pendleton, ON

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

Andrzej Konarzewski	Winnipeg	6:12 h	Krozno	Starbuck, MB
Ron Walker	Gatineau	6:00 h	Glasflgl 304	Pendleton, ON
Marc Arsenault	Champlain	5:38 h	Ka6-CR	St-Dominique, QC
Ron Hunt	Rideau Valley	5:26 h	1-34	Kars, ON
Mark Chanachowicz	SOSA	5:09 h	Twin Astir	Rockton, ON

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

Ron Walker	Gatineau	2130 m	Glasflgl 304	Pendleton, ON
Philip Stade	Cu Nim	5420 m	Std Cirrus	Cowley, AB

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

2687	Andrzej Konarzewski	Winnipeg	6:12 h	Krozno	Starbuck, MB
2688	Miguel Londono	York	1:13 h	1-26	Arthur E, ON
2689	Hans Vetterli	Toronto	1:02 h	2-33A	Conn, ON
2690	Philip Stade	Cu Nim		see Diamond alt.	
2691	Ron Walker	Gatineau	6:00 h	Glasflgl 304	Pendleton, ON
2692	Nic Kirschner	Vancouver	1:20 h	Blanik L-13	Hope, BC
2693	Craig Kirschner	Vancouver	1:32 h	Blanik L-13	Hope, BC
2694	Marc Arsenault	Champlain	5:38 h	Ka6-CR	St-Dominique, QC
2695	Ron Hunt	Rideau Valley	5:26 h	1-34	Kars, ON
2696	Mark Chanachowicz	SOSA	5:09 h	Twin Astir	Rockton, ON
2697	Jack Humphries	Vancouver	1:20 h	Blanik L-13	Hope, BC

2001 Badge Report
This year many more badge legs have been flown with GPS flight recorders. The new badge claim form, available on the SAC website, makes FR claims much easier for the pilot, the OO, and me. Many clubs are buying FRs for use by their members. Some are a bit non-user-friendly — but it's worthwhile to learn how to use them because it makes the flight much easier and leaves no doubt of your accomplishment. There are two main things to remember — declare your flight before takeoff and be sure to fly far enough to enter the observation zone, which is the 90 degree sector beyond your turnpoint centred on the inbound and outbound legs.

We read a lot about the fading popularity of gliding. Do you want to help keep the gliding hobby alive? Encourage badge flying. Promote badges. Create an atmosphere of badge awareness in your club and foster friendly competition in badge achievement among your members. Recognize badge and badge leg achievers at your AGM or

Christmas party. The result will be better pilots, more flights and fewer members lost due to boredom.

Once you get it started it grows on its own. With his 300 kilometre claim form one pilot wrote, "That was my first real cross-country flight, ie. a long flight with a purpose. Before undertaking it I was somewhat ambivalent about badges. Now I want them all!"

I have noticed that the more successful clubs are prolific badge earners and I am sure there is a correlation. Actively promote badge flying and your club will thrive.

The table of statistics presented herewith shows that we are up a bit from last year but still quite a bit down from most of the nineties. Let's try to make 2002 a record year! ❖

SAC Badge and badge leg statistics 1992 – 2001

	92	93	94	95	96	97	98	99	00	**01**	5 yr avg	% of avg
1000 km	0	1	1	0	2	0	0	0	1	**0**	0.2	–
Diamond	1	3	1	2	4	1	0	3	2	**1**	1.6	71%
Gold	5	1	2	4	6	3	2	4	5	**5**	3.8	132%
Silver	11	3	11	12	16	8	17	17	7	**8**	13.0	70%
C Badges	28	44	55	42	39	30	34	33	15	**38**	30.0	127%
Badge legs	65	45	87	93	91	79	87	79	67	**71**	76.6	93%

Introduction of the WGS84 ellipsoid

The earth is no longer spherical! As of 1 Jan 2002, for the purpose of FAI distance calculations, the earth model used may be either the WGS84 ellipsoid or the current sphere of radius 6371 km exactly. It is up to the IGC to determine when and how to implement this. The WGS84 ellipsoid is very close to the real shape of the earth, while the FAI sphere is a simple approximation. A short PC-based distance calculation program for both earth models is available by e-mail from the FAI office.

The WGS84 ellipsoid is now in common use for measurement purposes and is universally accepted as a world model by other organizations such as ICAO and is used in modern navigation systems such as GPS. The intention of the FAI could be to eventually phase out the sphere as experience is gained with use of the ellipsoid and as the various Sporting Codes are revised.

Some point to point distances show an average difference at the equator of over 0.4% between using the sphere and the ellipsoid. The error is less at mid-latitudes.

The IGC will be considering how to implement this change. It may come down to the use of the ellipsoid model for calculation of world distance records while retaining the simpler spherical calculation for badge flights which are not too close to the cut-off distance of various badge distances.

Tony Burton

Canadian RECORDS (as of 1 Jan 2002)

C indicates a record by a Canadian citizen originating outside the country.
T indicates the corresponding record set within Canada. (These are noted only when a greater "C" record exists.)

RECORD TYPE	OPEN	CLUB	MULTIPLACE (OPEN)	FEMININE
DISTANCE (km)				
3.1.4a **Free distance**	Marsden/Apps 1093 1984		Chester Zwarych (R Adam) 495.0 1986	Ursula Wiese 607.0 1986
3.1.4b **Free out & return**	Walter Weir 519.4 C 1995		Charles Yeates (K Yeates) 259.9 C 1999	
3.1.4c **Free 3 TP dist.**	Tim Wood 776.1 T 2001	Trevor Florence 770.4 2000	Trevor Florence (D Turner) 521.3 T 1999	Sue Eaves 508.7 T 1995
	Brian Milner 1394.0 C 1993			Tracie Wark 592.6 C 2000
3.1.4d **Strt dist. to goal**	Marsden/Apps 707 1984		C Zwarych (H McColeman) 310.0 T 1984	A Williams 305.0 C 1975
			J Proudfoot (G Fitzhugh) 304.0 C 1981	
3.1.4e **Out & return dist.**	Tony Burton 652.3 T 1993		Dave Marsden (E Dumas) 421.5 1979	Ursula Wiese 328.0 1984
	Brian Milner 1128.9 C 1999			
3.1.4f **Triangle distance**	Hal Werneburg 803.7 T 1982		John Firth (D Webber) 510.4 T 1986	Jane Midwinter 317.6 1988
	Peter Masak 1007.0 C 1987		C Yeates (K Yeates) 510.2 C 1989	
SPEED, Δ (km/h)				
3.1.4h **100 km**	K Bennett 131.1 T 1989		Dave Marsden (M Jones) 98.1 T 1975	A Williams 54.5 1976
	P Masak 141.4 C 1985		Charles Yeates (K Yeates) 102.7 C 2001	
SAC **200 km**	J Firth 110.6 T 1984		Lloyd Bungey (T Burton) 76.0 T 1983	Marion Barritt 68.7 C 1970
	C Yeates 116.3 C 1994		Charles Yeates (K Yeates) 79.5 C 1987	
3.1.4h **300 km**	K Bennett 113.1 T 1988		Dave Marsden (E Dumas) 69.9 T 1975	Tracie Wark 99.1 2001
	P Masak 148.9 C 1985		Ian Spence (J-R Faliu) 128.5 C 1991	
SAC **400 km**	J Firth 99.0 T 1987			
	C Yeates 119.7 C 1994			
3.1.4h **500 km**	W Weir 105.7 T 1991		John Firth (D Webber) 88.8 1986	
	P Masak 151.2 C 1985			
3.1.4h **750 km**	W Krug 108.8 1982			
3.1.4h **1000 km**	P Masak 106.5 C 1987			
ALTITUDE (m)				
3.1.4i **Absolute altitude**	B Hea 10485 T 1981		Bob Shirley (P Campbell) 9083 T 1961	Deirdrie Duffy 8986 T 1991
	W Chmela 12449 C 1974		W Chmela (VanMaurik) 10390 C 1975	A Czervenka 9772 C 1969
3.1.4j **Gain of height**	D Mercer 8458 1995		Bob Shirley (P Campbell) 7102 1961	Deirdrie Duffy 6575 1991
SPEED, O & R (km/h)				
SAC **300 km**	H Werneburg 115.2 T 1983		Walter Chmela (H Rominger) 65.0 C 1976	U Wiese 59.6 T 1984
	W Weir 191.3 C 1989			Tracie Wark 132.3 C 2000
3.1.4g **500 km**	K Bennett 126.3 T 1992			
	W Weir 150.9 C 1996			
SAC **750 km**	W Weir 145.0 C 1994			
3.1.4g **1000 km**	B Milner 147.0 C 1999			
SPEED, GOAL (km/h)				
SAC **100 km**	L Springford 125.1 T 2001	Tony Burton 93.3 1999	Trevor Florence (N Marsh) 105.1 2000	
	W Weir 147.7 C 1992			
SAC **200 km**	K Bennett 125.9 T 1992			Tracie Wark 129.1 C 2000
	W Weir 143.0 C 1995			
SAC **300 km**	W Mix 108.6 T 1966		Jock Proudfoot (G Fitzhugh) 70.2 C 1981	
	W Weir 145.9 C 1994			
SAC **400 km**	T Burton 81.5 1990			
SAC **500 km**	D Marsden 97.1 T 1970			
	W Weir 138.4 C 1993			

club news

Les Staples

"Our dear friend has flown on ahead of us, while doing what he loved to do, and I'm curious as to what projects and creations he will have to show us there." Larry Rowan

On 6 November, Les died when the Cessna 172 he was flying crashed in Gatineau Park north of Ottawa. He had been flying for 57 years when the accident took his life.

In the early 1970s, alongside Larry Rowan and Glenn Lockhard, he helped launch the Rideau Valley Soaring School near Kars, south of Ottawa, and as a result introduced hundreds to the joys of soaring. Even in the flying community, however, there were few who knew the full scope of his extraordinary talents.

He spent 30 years as a civilian engineer in an RCMP section that was the forerunner of CSIS. "From the little I know of his work he was every bit as innovative there as he was at home or in the hangar," says Larry Rowan, a retired RCMP officer. "It's no exaggeration to say Les was to the RCMP what "Q" was to James Bond."

Bill Glover worked with Les at the RCMP for 15 years. "I have never met a man with such a wide range of knowledge and skills in technical matters. He was equally at ease creating a complicated mechanical part with a lathe or milling machine or building an electrical circuit. He built his own home, his own aircraft, and the hangar to house the aircraft. He was also a skilled photographer, and combining his mechanical, electronic and photographic knowledge he developed, among other things, remote controlled photographic systems that were ahead of their time. Together with Larry, he built an airfield."

Les designed and installed a burglar alarm for GGC's hangar after several break-ins. The next time an intruder forced an entry into the remote hangar, the alarm worked perfectly — but there was nobody to hear it. To add injury to insult, the thief stole the alarm system!

After Les became an instructor, one of his earliest students at Gatineau was Larry Rowan. They became close friends and then partners in the airfield project near Kars. Glenn offered to supply the towplane if they agreed to help start a gliding club. The two partners rented a 2-33 from North Bay. After some exhausting tussles with paperwork and a muddy airstrip that at times threatened to swallow their tractor and grader whole, the RVSS was born.

Untold numbers of glider pilots, veterans as well as rookies, could tell you how Les Staples influenced them with his knowledge and positive attitude.

Geoff Johnson

Sporting committee

from page 5

of the issue were expressed. A subsequent survey conducted by CAS was evaluated. Pilot opinion on this issue are split fairly evenly. However, there is strong opposition from a minority of pilots. Based on the fact that there is no clear majority for Nationals in Uvalde and that holding a national competition outside the country is very controversial, the Sporting committee opted for having the 2002 Nationals in Canada. Since at this time there is no interest in the west to host the Nationals, MSC has offered to be the host for the 2002 Nationals.

Ongoing Projects

Decentralized Nationals
The Decentralized Nationals are an excellent means of involving new pilots at the grass roots level. The enrolment in the Decentralized Nationals has increased in 2001. This is probably due to the increased profile of this competition as well as the availability of a cash prize. The Sporting committee thanks Heri Pölzl for sponsoring first prize for the 2001 winner.

There have been suggestions to score the Decentralized Nationals using the automated scoring of the Online Contest Website. The Sporting committee is currently moderating a Roundtable discussion on this topic.

Team selection policy
Due to competitive changes in the Club class, the current team selection policy needs to be reviewed. Suggestions have been made to base team selection on a combined handicapped score of all classes currently represented at the Canadian Nationals. This would provide a good mechanism to select participants in classes that are currently not represented in Canada, such as World class, 18 metre class, and Open class. Furthermore, the TDT scoring system accommodates a wide enough range of handicaps for a meaningful combined score of all classes. The committee is currently moderating a Roundtable discussion on this subject.

Now, with the Worlds in the southern hemisphere behind us, the committee recommends implementing the provision to select the Canadian Team 10 months prior to a world level competition in order to ensure there is sufficient time for the team to prepare.

Refinements of TDT scoring
TDT tasking and scoring worked well during the Nationals 2001. However, the Sporting committee is currently considering reducing the home bonus from current 10% to 5% for arrivals under 500 feet agl to reduce the chance of multiple low and slow arrivals from different directions.

Align SAC trophies with Decentralized Nationals
The criteria for several SAC trophies should be aligned with the Decentralized Nationals in a meaningful way. This issue needs further study.

Individual SAC membership
The committee recommends that SAC reactivate individual SAC membership. Some Canadian competition pilots have no affiliation with Canadian clubs either because their clubs failed or because they usually fly in the USA due to lifestyle choices. Denying these pilots individual SAC memberships places unnecessary barriers in their way if they desire to fly in Canadian Nationals. In 2001, one of these cases caused a very divisive and destructive exchange on the Roundtable.

At the present, participation in Canadian Nationals has declined to the point where hosting the Nationals is financially only feasible at a few locations. We welcome US pilots to fill out the field. Under these circumstances it doesn't seem prudent to turn away qualified Canadian pilots over the issue of SAC membership.

Thanks In closing, I want to take this opportunity to thank my fellow committee members, as well as the CAS executive, for donating their time. Furthermore, I recommend that SAC recognize Nick Bonnière for his excellent work creating the scoring software and Ursula Wiese for maintaining the "Book of the Best" as well as records and criteria for SAC trophies. ❖

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.
Ad will run 3 times unless you renew.
Tell me if your item has been sold sooner.
Subject to some editing for length.

single seat

Tern, CF-BWA, 195h, basic instruments, enclosed trailer. $5000 obo. Walter Mueller (780) 539-6991.

Ka6E, 1474h. Std panel, encl. metal trailer. Wings and fuselage recently refinished. Chute and fresh annual included in price. $11,800. Based at Invermere Soaring Centre, BC. Call Ernst or Trevor (250) 342-7662 or 1688. <*info@soartherockies.com*>
Photos under <*www.soartherockies.com/classifieds*>

L-33 Solo, 1997, zero hours, basic inst, Becker radio, excl cond, located in BC. US$23,500 obo. (604) 894-5727, eves (604) 894-5707, <*pemsoar@direct.ca*>

Slingsby Skylark 4, C-GFAI, #1396, 1488 h, always hangared, in excellent cond. Full instrument panel, fully enclosed metal trailer. A proven Gold/Diamond performer. Asking US$5,000 obo. Contact: Tom Milc (GGC) *tmilc@istar.ca* or (613) 673-5206 (home), (613) 271-7929 (bus)

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, camera, chute. $28,000 obo. Al Sunley (780) 464-7948, <*alsunley@freenet.edmonton.ab.ca*>.

HP14T, C-FAXH, 1450 h, good cond, elec vario, Delcom radio, chute, A8A O_2 with 2 bottles, Scott mask with microphone, hydraulic disc brake, very complete package, easy towing trailer with new tires, construction drawings, excel value for this easy flying X-C sailplane, best built HP-14 in Canada. $16,500 obo, Mike Thompson (604) 534-8863, e-mail <*thompson_foundry@telus.net*> Check these links:
<*www.soaridaho.com/Schreder/HP-14/HP-14_ Construction_Index.html*>
<*www.soaridaho.com/Schreder/HP-14/C-FAXH*>
<*www.soaridaho.com/Schreder/HP-14/hp-14*>

RS-15, C-GPUB, 2100h. Honest almost-Cirrus performance, Hollestelle winglets give big gain in low speed handling. Cambridge & Filser varios, O_2, encl trailer, misc RS-15 plans & odds & ends. $16,000. Tony Burton (403) 625-4563, <*free-flt@agt.net*>. For fine photo, go to <*www.soaridaho.com/Schreder/*>.

Cirrus 75, Toronto, 660h, plane and trailer refinished in 1996. Trailer modified for ease of use. One-man rigging. Filser LX160 computer with GPS. Delcom radio, Winter barograph, Security parachute. $27,000. <*keithmck@idirect.com*>.

ASW-20B, 1985, 1450h. Excel gel coat and general cond, never damaged, Dittel FSG60M, Sage vario, Winter ASI, and 2 π vario, Cambridge L-NAV, relief system, wing covers, tow-out gear, Komet trailer, outstanding performer. $59,000 (US38K). Ulli Werneburg, (613) 826-6606 or <*wernebmz@magma.ca*>

ASW 20, newly refinished with Simtec Prestec, flip-up instrument panel like a 20B, new water ballast bags, Dittel ATR 720 radio, Filser LX4000 glide computer, Filser LX20 recorder, Komet trailer. $57,000 firm. Chris Eaves: <*mail@xu-aviation.com*> or (519) 452-7999 days, (519) 268-8973 evenings.

SZD-55-1, C-FCYF, 450 h since new and 120 h since complete refinish with Simtec Prestec in 1999. Tinted canopy, new custom interior etc. With basic instruments, older trailer and Security chute, $55,000. Call Ed Hollestelle for details, (519) 461-1464.

Ventus B, 1000h, NDH. Ball vario, Ilec SB8, LX400 GPS flight computer, ASR/GPS, flap position lights, Dittel 760 radio, Security chute, Masak winglets, O_2, Cobra trailer. US$37,000/C$56,000. Can deliver. Ian Sutcliffe. View at <*www.IanSutcliffe.com*>, details (416) 817-1787, <*iands@attglobal.net*>.

Strojnik S2A, C-FGBY, homebuilt motorglider, excellent work. Basic instruments, ICOM IC-A3 handheld radio, Security 150 chute. Kawasaki 340 engine. Encl. homebuilt trailer. $16,500 More info at <*http://lark.gawd.mb.ca/~sps/s2a*> Contact Bruce at (204) 783-4983. or <*s2aforsale@lark.gawd.mb.ca*>.

two-place

L-13SL Vivat motorglider, 930 h, MTV-1 electric adjustable prop, Becker radio, basic instruments, turn and bank, strobe/nav lights, beautiful in and out, US$41,000. Pemberton, BC. *pemsoar@direct.ca* (604) 894-5727, evenings (604) 894-5707.

misc

Monerai, unfinished kit / glider wanted. Call Gregory at (905) 568-1280 or <*o_sachs@sympatico.ca*>

A14 regulators, diluter demand O_2 regulator – serviced and pickled. Four avail. $200 ea. Dave Fowlow, (403) 974-7541.

Winch, 350 cu in Chrysler V8, on one axle with trailer hitch. Will launch all two-seaters. Call Kurt at (519) 948-8227 evenings, (519) 966-7300 days.

Wanted, motorglider, I'm looking for something older and cheaper. Contact Rob at (306) 764-7381, <*ka7@sk.sympatico.ca*>.

suppliers

Canadian Soaring Supplies Borgelt instruments and soaring software. Svein Hubinette, 343-150 rue Berlioz, Ile des Sœurs, QC H3E 1K3, (514) 765-9951 <*svein@videotron.ca*>

MZ Supplies Dealer for Schleicher sailplanes and parts, Becker radios, most German instruments, *SeeYou* flight software. Ulli Werneburg, 5671 Ferdinand St, Osgoode, ON K0A 2W0 ph (613) 826-6606, fax 826-6607 <*wernebmz@magma.ca*>.

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

Flying High Parachute sales, repairs, repacking, custom containers. Al MacDonald (403) 687-2225 <*www.flyinghigh.net*>.

Invermere Soaring Centre
Schempp-Hirth sailplanes, PW-5. Glider import and brokerage, glider rental, mountain flying instruction. Ernst Schneider / Trevor Florence, Box 2862, Invermere BC, V0A 1K0, ph/fax (250) 342-1688, cell (250) 342-7662, web site: <*www.soartherockies.com*>
e-mail: <*info@ soartherockies.com*>.

magazines

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

NEW ZEALAND GLIDING KIWI — the monthly journal of the New Zealand Gliding Association. US$33/year (seamail). Private Bag, Tauranga, NZ. <*gk@roake.gen.nz*>

SAILPLANE & GLIDING — the only authoritative British magazine devoted entirely to gliding. Bimonthly. British Gliding Association, Kimberley House, Vaughan Way, Leicester, LE1 4SE, UK. US$43 per year airmail, US$33 surface. <*beverley@gliding.co.uk*>

MOTORGLIDING INTERNATIONAL — bimonthly jointly published by the Soaring Society of America and the British Gliding Association. US$34 per annum, (505) 392-8154. <*info@ssa.org*>

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