

free flight • vol libre



2/01
Apr/May

My arms are still tired after flying back from Winnipeg!

Many thanks to the club for hosting the Annual General Meeting, particularly Mike Maskell and Kimberley Kachanoski for their efforts in organizing the venue, displays and events. The weather was even better than that which I had left in Toronto. At the business meeting on Saturday morning I was confirmed as re-elected for another two years. Also we were pleased to welcome Jo Lanoë. He was the victor in a closely fought campaign to represent Quebec and the Maritimes in place of Pierre, who wrote his own obituary in the last issue. Jim McCollum, our hard working Treasurer, underlined the central concern we are presently faced with which is membership. Our present levels are close to a historic low for this organization. We are at a point where, without a significant sustained increase, the funding of the Ottawa office and the services provided to the sport cannot be economically continued. This coupled with the number of clubs that are operating at bare minimum membership levels points to the need for a much more sustained effort on recruiting and retention by all clubs.

Following the business meeting, the rest of the day was filled by an entertaining and thoughtful presentation on pilot decision making given by Transport Canada. The Board, as usual, commenced its meeting which continued through to Sunday afternoon. Saturday evening we all greatly enjoyed being guests at Mike Maskell's house where he and his wife Sue put on a wonderful spread, and we were joined by their club members in their annual pre-season social gathering. Fortunately I didn't get the opportunity to visit the money I had left at the Casino on my last trip!

I would like to welcome Christine Timm, Keith Hay, Joe Gegenbauer, Stuart Gregory and Sean Kennedy, all of whom have volunteered their efforts to work on various committees. SAC cannot continue to function without the assistance of individuals who are prepared to give some of their time to helping with the work. SAC as a national organization has been negligent in the past in not providing all of its documentation in French. Progress on this has been made with the publication of French editions of *SOAR* and a number of brochures and checklists. Completion of this task is a priority and while work is continuing, any more volunteers for translation assistance would be welcomed. We hope soon to add a Daily Inspection Checklist to the SAC publications, and we are working on getting a summary of the insurance policy onto the web site, as well as a number of other housekeeping matters.



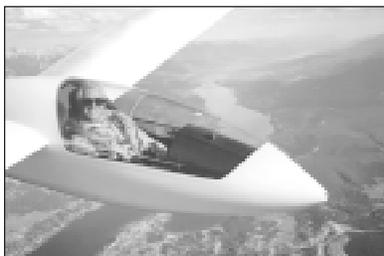
Bonjour,

Mes remerciements aux hôtes de notre assemblée annuelle, Mike Maskell et Kimberley Kachanoski. A cette réunion, à Winnipeg, ma ré-élection comme directeur de la zone Ontario a été confirmée pour les deux prochaines années. À la même occasion, nous avons accueilli dans nos rangs Jo Lanoë qui a pris la succession de Pierre comme directeur de la zone Québec et Atlantique. Notre trésorier, Jim McCollum nous a fait une présentation qui illustre le problème récurrent du recrutement. Notre membership est à un plancher historique. Sans un effort soutenu de recrutement et de rétention des membres dans tous les clubs, nous ne serons plus en mesure d'assurer les services qui sont cependant essentiel à la survie du sport.

Samedi après-midi, le conseil d'administration a tenu une réunion qui s'est poursuivie jusqu'à dimanche soir. Samedi en soirée, nous avons goûté à l'hospitalité des Maskell à leur domicile. Nous avons participé avec les membres du club à leur célébration pré-saison.

Je veux souligner la venue de Christine Timm, Keith Hay, Joe Gegenbauer, Stuart Gregory et Sean Kennedy au sein de nos comités. Sans la contribution généreuse de nos volontaires qui donnent de leur temps, l'ACVV ne pourrait offrir les services auxquels les membres sont habitués. Nous ne sommes pas satisfaits du peu de documents qui sont disponibles en français. Des progrès ont été faits avec la traduction du manuel *SOAR* et de quelques autres brochures. Nous aurions besoin de volontaires pour accélérer ce processus. Nous rendrons bientôt disponible un « Carnet d'inspection journalière pour planeur ». Un résumé des modalités de notre police d'assurance sera aussi publié sur notre site web. ❖

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Cover

A composite photo of Jim Carpenter over Invermere, BC. The air shot was taken by Jim at 6000 feet in 1999 when the cloud-base was over 12,000. The Discus was shot on the ground last fall, by Jim's daughter Nadine using an Olympus OM1, 200mm lens. The photo was assembled and retouched by Jim.

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XC fascination and fear

Sergio Colacevich
from *WestWind*

FLYING CROSS-COUNTRY IS A WONDERFUL EXPERIENCE at all levels, from beginner to accomplished pilot. In my first cross-country flight I remember oh, sorry, I was taken off track by memories. I remember every detail of that flight. Ask other pilots: they all remember their first cross-country flight.

Let me speak for a moment to the people who still haven't had that experience. On the first flight out of the home field, one distinctly feels the transition from a safe place to the unknown territory ahead ... I don't know these surroundings, I don't know where the airports are, what altitude I can consider safe to get to a landing place, where to find the lift. Is there any lift beyond the home thermals I already know, beyond the one I just left? Now I am low. Help, I cannot reach home from here! Personally, I felt the pull of invisible elastic bands attached to my back and a distrust for the air in front of me. I felt alone and vulnerable. I looked left and right to my wings, and that gave me encouragement. Trusty, strong, aerodynamically perfect, they were doing their job like loyal sled dogs. After a while, I found lift and the flight continued, but that is another story.

However, some of this still happens now, even after all these years. I am climbing in a thermal, the vario sings, the sky is friendly and it seems that I can reach anywhere. From here I plan to go there, and then there and there. But when I leave the thermal, the surrounding sink throws me down and I continue to find sink, the glider is pointing down and losing altitude fast. After one minute I have lost a thousand feet and am still descending. Can I do now what I was planning to do just a minute ago?

So many times I have been in trouble because of these overestimates at the top of the thermal. This may be one of the biggest safety issues of soaring cross-country. Because you see, *safe flying does not consist of what to do when we are in trouble, but rather what to do so we do not find ourselves in a bad situation in the first place.*

Let me expand on this. If I advise you not to go into an unlandable area at low altitude, you will agree enthusiastically and in good faith believe that you will never do that. It's like hearing the well-known adage, "Get high and stay high". A friend remarked, "I know, I try to do that every time, but then I always find myself low and scratching." If it depended on our wishes, we would always cruise at 5000 feet agl and never get below 4000.

So the most important way to do it right is to use good judgement. But judgement is based on our perception of the situation we are in, and in flight our perceptions may swing wildly from infinite enthusiasm to profound depression. Emotions are such a great part of this sport. Ultimately, the feelings generated by flying are the very reason why we fly and why we love soaring so much. Yes, we love to fly over the country for its beauty and there is such a great sense of accomplishment in knowing that every mile was gained with hard work, reasoning, good decision and astuteness.

What to do then, to live a safe life? The best antidote to finding ourselves in a dangerous situation is experience. After having been in trouble so many times, we know what not to do. But what do we do while waiting for the experience to accumulate? What about the new, improbable situation that never happened before and therefore is not part of our hoard of experiences? We cannot avoid the new, we have to pass through it. We have to have our mistakes and learn from them. Experience gathered from other pilots helps and costs nothing. You can also mentally prepare yourself by visualizing possible situations. For example, it has become my habit, when I drive out of town, to observe the

⇒ p21



The SOARING ASSOCIATION of CANADA

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

free flight is the official journal of SAC.

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

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

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

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L'ASSOCIATION CANADIENNE DE VOL À VOILE

est une organisation à but non lucratif formée d'enthousiastes et vouée à l'essor de cette activité sous toutes ses formes, sur le plan national et international. L'association est membre de l'Aéro-Club du Canada (ACC), qui représente le Canada au sein de la Fédération Aéronautique Internationale (FAI), laquelle est responsable des sports aériens à l'échelle mondiale et formée des aéroclubs nationaux. L'ACC a confié à l'ACVV la supervision des activités vélioles 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 vélioles 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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Something worth sharing

1 December 2000

Each July and each August they are there, for a total of four weeks, and it would be easy to resent their intrusion at York — the Air Cadets. We probably know that we are collectively doing something good, and no resentment is evident, but I think sharing this letter may help motivate us to extend a warmer and proactive welcome to our young student pilots. I hope you find the following as heart-warming as did I:

28 November 2000

Dear Charles:

I'm sitting here reading Graeme's grade 12 first term report card and I can't help but be absolutely amazed. I'm sure you are wondering what this has to do with you and the gliding club. I'll explain. During Graeme's first three years at high school his efforts and achievements were, to say the least, disappointing. There was never time for him to do his homework, or study, as Graeme always thought Air Cadets came first. Although Pam and I felt differently, we never said much but encouraged the 3-4 nights a week, plus the odd weekend, of cadet training and activities. The highlight of Graeme's four years in cadets was his attendance at York Soaring through a scholarship awarded by the Squadron.

We dropped Graeme off in Arthur for two weeks of training, wondering how he would survive cooking, studying, learning, flying and writing the TC exam. We seemed to get daily phone calls updating his progress. We came to visit twice during the course in hopes of seeing him fly. The second last day of the course, Graeme called with the most exciting news. He not only passed his exam but got a much higher mark than he thought he could achieve. *Talk about proud!* In two short weeks he learned more about life, hard work, and achieving goals than I think he learned in all his 17 previous years.

Pam and I would like to thank all the members at York Soaring, especially yourself, Richard and Rob, for all your patience and dedication. There is no question in my mind his level of self-confidence and pride in his achievements began to soar at York and is carrying over to his schoolwork. The entire two weeks at York could be best summed up using one of your expressions that Graeme often uses: as Charles would say — "a character building experience."

Thanks again, **Geoff & Pam Ditner**

The story within the story is that Graeme is dyslectic to some degree. He has always had exams given to him verbally because of the difficulty he has reading items. He asked that we approach TC and ask them to give him an oral exam. After consideration we decided not to do so and made him write the exam with the rest of the class. He not only passed, but passed with a 74% which is a respectable enough mark for those without this problem! Evidently the problem he has is often accompanied with a lack of self-confidence.

The fact that he was able to pass the exam the same way that everyone on course did has obviously boosted his level of self-confidence and helped him get through school in a difficult year!

Of course as an instructor I like to think the time we spend instructing does similar things for all of our students! It probably does but not to the extent of this young man. I guess you could say that learning to fly is not just "learning to fly" but a "life learning experience"!

Rob Harling, CFI
York Soaring Association

Unsure about risk and safety

I was a little confused when I read Henry Wyatt's article, *Risk management = soaring safety*. He opens basically saying that we do not have a problem with our current safety record and then does a 180 to let's look at what power flying has done to make things safer. I have read the article at least twenty times as I want to make sure that I am not misinterpreting it. I understand that Henry is very active and a leading member of the Edmonton Soaring Club when it comes to safety, but when I walk away from his article I am left with the message (feeling) that we do not need to improve our safety.

Yes he is correct, it appears that "only a small minority of flights end up in trouble"; that is an easy assumption to make if you are sitting in your club with a very good safety record. But the reality is that the gliding accident record across the country is one of the worst in the world and we are facing the very real prospect of being legislated and uninsured out of existence. I for one embrace a 'too formal and inhibiting' safety culture if that is what it takes to keep us flying. If our safety record does not improve, it will be corrected by Transport Canada.

He goes on to make the statement, "What is safe for an experienced soaring pilot may well be hazardous for a student." While I do agree with the logic, history has \Rightarrow **p20**

The international Grand Prix

Jim Carpenter, COSA

ON LABOUR DAY last year, Heri Pölzl was at the club getting the flight recorder he was going to use in the first World Club Class Competition in Gawler. He suggested that I'd have a great time in Australia, flying in an event I had never heard of ... the Grand Prix. The first *International Soaring Grand Prix* was to consist of racing in small groups around an assigned speed task, using a single start time, from a single start point, and simple place scoring. How could I even consider going — I wasn't on the SAC Seeding List and had never flown in a contest where flight recorders were mandatory. But, after strong encouragement from my wife and discovering I actually met the Australian entry criteria, I decided to go. My son Jason told me he was going to come with me to crew; the Adelaide club offered me their Ventus and lined up a car with a tow hitch, and Brian Milner loaned me a Cambridge flight recorder. What more could I possibly hope for?



Brian Milner

Lucky charms work – Hula Girl

For Christmas my daughter gave me a little hula girl puppet, to be carried in the glider to bring me “good luck” in Australia. Packing the gliding paraphernalia and all my personal gear into my luggage took a lot of effort, so this little female talisman (sorry — talisperson) never made the “must pack” list and was left behind.

Fast forward to Australia (oh, if only that were possible; the 14-hour flight from Los Angeles to Sidney is insufferably long). Jason, who did all the driving, picked up our right hand drive Pintara in Adelaide, and we departed for Gawler where my Ventus B, “Foxtrot November”, belonging to the Adelaide Soaring Club, was based. The first days in Gawler were spent installing the GPS systems, weighing and re-weighing, adjusting ballast and trying to get our internal clocks and thermostats acclimatized. Foxtrot November was very nice to fly with a tendency, due to the flaps, to fly fast (I like that), the cruise settings being 0, -1, -2 and S for *Schnell*.

Our three weeks in Gawler coincided with their hottest three weeks on record. How hot was it? On one day of the competition, the temperature on the airfield reached 47.4C! Better than the -20C at home reported by my wife Agda, who called to say a surprise package was on its way, guaranteed two-day delivery.

The first flight of the practice week was a straight-out tow to 2000 feet, release and a sobering, straight back, no-turn, no-lift, no-airbrakes, long final, across the city of Gawler to the runway. Whew! The remaining practice day revealed this contest was going to be flown without a functioning recorder, or a final glide computer. At least one vario, though small and silent, seemed to be okay. We were as ready as we ever would; so now the games could begin.

Contest Day 1

Take 1 — Flying was cancelled after I drew the sniffer flight; flew straight out and almost straight back, in front of forty-nine of the world's best pilots. Maybe I should have brought the hula girl after all. We all went to Parafield airport for a close-up look at the Grob G520T Egrett. Really impressive.

Take 2 — No flying, we all went swimming.

Take 3 — Flying was cancelled again, so we all went to the zoo to see kangaroos and koalas. Back at the hotel, we found the package from home had finally arrived, only nine days late (not FedEx). Opening it, both Jason and I laughed — my Hula Girl had arrived. Maybe now the weather would change. Maybe now the competition would begin. The next morning the weather was gloriously cloudless. Maybe the hula girl was nothing to laugh at. We took her to the airport and glued her to the instrument panel cover and went to the pilot briefing.

Take 4 A 317 km triangle

We have been aware, for a long time, of the risks inherent in gaggle flying. Surprisingly, gaggle flying occurred infrequently even prior to starting, because the remote starting point, a large 4 km diameter circle, was 15 km from the airfield. The 40 minute countdown to the start, begun when last competitor took off, was announced on the radio, at decreasing intervals, until we all heard, “*The gate is now open!*” In Grand Prix racing, where everyone has the same start time, there is no advantage to be gained from lingering in a gaggle.

Immediately after starting, the Australians deviated from course, straight to the “ridges” where the lift was more likely to be prevalent on this blue day. Their two Discii, at 45 kg/m², easily outran my lighter Ventus, but one of them proved to be very helpful. Simon Brown, ahead beyond the forested ridges, was really low, circling over the flat country. After a high speed, long glide, just clearing the ridges, to the thermal where Simon had been, Swaantje Geyer joined me, having followed in her Ventus. We had the pleasure of having a very good “Hexe” (*witch*) in our class, Swaantje's term for a female pilot.

The rest of the flight was at more comfortable altitudes, pushing, in an attempt to catch the others. Having left Swaantje behind, the time arrived to test my Hula Girl final glide calculator: 100 feet of altitude yields 1 kilometre with an 18 knot headwind. It worked! Foxtrot November was the only Grand Prix glider to get back. First day — first place. The Ozzies gave me a new call sign: *Hula Girl*.

Contest Day 2 147 km triangle

Much of this blue thermal day was spent with the team-flying Germans, each of us trying to outrun the other in the 20 knot south wind. They pulled ahead on the final glide and Swaantje Geyer won the day, with her teammate Benno Beeston second.

Contest Day 3 384 km quadrangle

It was obvious, after studying the recorder traces, time could have been shaved from the task, if the shortest route had been flown, so today's resolution was to fly closer to course. I met the Germans at the second turn, where we were entertained by the eagles who joined us in the thermal. I led the way across 120 km of the "dingo", a sparsely-vegetated desert with few possibilities for outlanding, but could not shake Beeston and Geyer who again left me behind on the final glide. They finished one, two, with me two minutes behind. Team flying was going to be tough to beat.

Contest Day 4 192 km triangle

The sea breeze at Gawler was a daily occurrence. This cool ocean air rolls in and extinguishes thermal activity over a large area. By late afternoon it adversely affected thermals many miles inland, necessitating long final glides from a height outside the affected area. The Gawler weather forecasters were extremely accurate and could predict what time the sea breeze would arrive, what area would be affected, and when the thermals would be cut off by this cool "terminator". Because of its impending early arrival, our start point was changed this day to another which was further inland. Ten minutes before takeoff to the north, the windssock snapped 90 degrees, right on time, and the cool air rolled across the airfield, like an invisible express train, kicking up a huge cloud of dust as it arrived. We were towed east to the release zone and climbed away in unaffected air.

Brian Milner



Today the Australians dominated, with Simpson's Discus at 109 km/h for first place and Wilson's ASW-24 a close second. They both enjoyed a great run straight back in lift all the way from the last turn. I was happy to be third, ahead of my new German friends.

Contest Day 5 161 km triangle

A long lenticular cloud formed over the ridges on the far side of the Barossa valley and today's sea breeze was to arrive early. After leaving the start point thermal at 5000 feet, a long glide in a very smooth 20 knot crosswind — the cloud shadows ahead made a turn 60 degrees inland to the sun-bathed ridges advisable.

After leaving a farm I considered visiting, my course now followed the sun across the centre of today's triangle, took me almost to the second leg, then turned to the west and, very low near the turn, I joined Swaantje who, with the others, had flown straight out on course. We climbed slowly near the paddock where our teammates Benno and Heri had just landed. Together we

flew to the next turn; the wind was still west at 20 knots; Swaantje left for home, but I chose to fly to the east, close to the north end of the big wave cloud which had been there all day. Contact! A smooth climb to 7000 feet and a final glide home for first place. Swaantje arrived nine minutes later, and David Wilson, the last finisher, was third.

Contest Day 6 374 km triangle

Our race started at 4500 feet with a 20 knot wind, again from the west. At the first turn, 117 km to the north, conditions were much better, with thermals to 10,000. Out to the east, over the desert toward Waikerie, the cu looked really promising. A long glide, burning up 6000 feet of altitude at 110 knots, to a willie, an Australian red dust devil (rotating clockwise), yielded a dividend of a climb to 13,500 and an easy run under an overcast to the turn. The last leg was blanketed with cloud, so back-tracking 70 km of the previous leg took me to another willie, which delivered me from 1500 feet above the desert floor to 13,000 and the 130 km back home to another first. Beeston and Wilson followed a similar route to second and third places.

Contest Day 7 273 km triangle

This was my worst day. Instead of following everyone else all the way around the task, turning home immediately after flying only 60 km would have been the right choice to get my 1 point. Fortunately, in the Grand Prix, a bad performance is not unduly punished. My lead was reduced to 2 points.

Contest Day 8

Take 1 — The task was cancelled in the air prior to the start due to incoming thunderstorms. Mark Simpson saw a lightning bolt pass out of the cloud to the ground just ahead of him, where it started a huge stubble fire.

Take 2 — Cancelled because of the solid overcast.

Take 3 — We walked through the rain to breakfast at the hotel, where everyone congratulated me for being the winner. Knowing it was raining, I said I would rather win after having flown another day and it ain't over till the fat lady sings, but inside I felt relieved.

At the airport we could hear rain on the hangar roof while the forecasters, who were normally right, told us of the conditions to expect on the task about to be announced. Large areas to the north were still wet and not likely to produce thermals. Cu were expected, but would be sparse. Lift would be weak. The task: 164 km. The rain stopped, the overcast broke up into scattered cu, and teams scrambled to assemble gliders which had spent the last two days in trailers, protected from the storms. We were fortunate; based at Gawler, my Ventus had been hangared and, after the briefing, we found it had been delivered magically to its place on the ramp.

With only a two point lead, I had to win today — and yes — I wanted to win. The start was good. I could hear the progress of the other pilots; I was ahead until shortly after the first turn, the cumulus had evaporated and the thermals were weak. A long time was spent low over a farmer working on a tractor in his yard while everyone passed overhead. They were only 15 km from the second turn when 4000 was again reached. Conditions ⇒ p17

On the Club class

Jim Carpenter, COSA

An opportunity, timely for our sport

I HAVE BEEN ASKED TO COMMENT on the Club class competition held in Gawler, Australia, but am able to only in a peripheral way — it was Heri Pözl and Brian Milner that lived and breathed the Club class for three weeks. Heri and I shared thermals for only part of one leg, on only one task, on only one day. Being a lone entry, Heri had a much more difficult contest in the Club class than I. He was one of 44 competitors, many of whom were team flying. I was one of only six. Due to the nature of the tasking, Heri flew alone most of the time, so his luck factor was significantly larger than mine.

Heri is an excellent pilot, and flew well. But for a single out-landing and a penalty, his outcome would have been quite different. (On Day 7, fourteen pilots inadvertently drifted in a thermal just a little inside an adjacent airspace where the ceiling was 8000 feet lower. They were all given zero points.)

Club class entries were limited to a narrow handicap range and also had weight restrictions. Water ballast was not permitted but fixed ballast could be added to reach the nominated or reference weight which was to be constant throughout the competition, and all gliders were weighed daily to assure compliance.

The tasks consisted of either Pilot Selected Tasks (PST), where time and distance are specified, and a 0.5 km radius turnpoint is used, or Assigned Area Tasks (AAT) in which a minimum task time, a flexible distance is specified by varying the sizes of the turnpoint radii. Aside from any mandatory turnpoints, the pilot is free to choose to fly where the weather is perceived to be most favourable (see illustration). Each pilot is given a daily choice of three start points. When landing back at the airfield seems unlikely (the daily sea breeze being one reason), the pilot could choose to land at a specified remote field for a 100 point penalty, rather than risk getting no speed points from landing short.

In the Club class, using PST or AAT, a lone pilot spends much of the task without company, and the decision of where to fly is subject to a large luck factor, particularly on cloudless days. The countries with multiple entries have the capability of minimizing this luck factor through team flying. The British had extensively practised this, flying with the accompaniment and guidance of former world champion George Lee. In addition, local knowledge, gained from practising near the contest site, also lowered their luck factor.

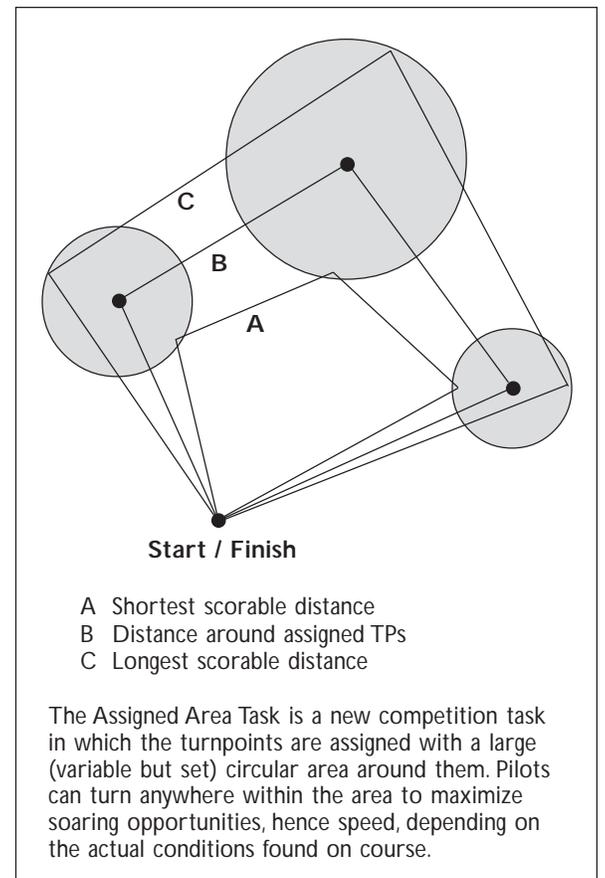
Club class scoring was extremely complicated. Two types of points, speed and distance, which for the winner may or may not total 1000, were apportioned according to an esoteric formula which took into account the number of finishers, the speed of the winner and the allotted task time, if applicable. In addition, a specially designed computer program was required to select the correct and allowable combination of turnpoints most advantageous to the pilot, apply the appropriate handicap, and automatically check

for any restricted air space incursions. Two scorers and a support team, working full time, often into the morning hours, were necessary to feed the computer and check its results to determine the scores which, barring any protest, became official after two days.

The scoring aside, however, Club class competition is good for our sport. Older, affordable equipment may be used, but more important, the average age of the competitors using it is lower. Younger pilots can usually afford only older — but in this class — highly competitive gliders. Oh, to be 25 years old with a Libelle H301! The British team pilots were all under 25. We must have young people active in our sport and the Club class offers us a wonderful opportunity. Who will be competing in 20 or 30 years from now? Today's Club class pilots. The only downside was the cumbersome scoring (not unique to the Club class).

Consider by contrast the scoring in the Grand Prix contest, where the tasking is also different. Grand Prix soaring races consist of small groups of similarly equipped pilots flying an assigned speed task, using a common start time and a common start point.

Scoring was wonderfully simple — a place system was used which rewards achievement without unduly punishing a poor performance. All pilots who achieve the minimum scoring distance of 60 km received one point. One point was awarded for each pilot they beat or draw with; one bonus point was awarded to the pilot who placed second, and three bonus points were awarded to the pilot who placed first. The first glider back → p17



Flying 2463 km

Klaus Ohlmann, an interview from *Sailplane & Gliding*

IN YOUR FREEZING COCKPIT, you've been racing close to Vne for much of the last fourteen hours. The sun is going down over the unlandable mountains to the north — and you've already flown over 200 kilometres further than the previous world record. Your co-pilot thinks you should turn back and land. What do you do?

If you are Klaus Ohlmann, you make a go-for-broke decision to go on... and claim a new world record with seconds to spare. A minute later, it would have been official night at the Argentinian airfield of Malargue — and the 2463.7 kilometre flight, now awaiting ratification by the FAI, could not have qualified as a world record.

The 48-year-old German dentist from near Frankfurt, who gambled and won in such a spectacular fashion, is no stranger to mountains. On his days off he shepherds compatriots on alpine soaring flights. An infectiously positive person, Klaus has 11,000 gliding hours, as well as twenty weeks of experience of wave in Argentina gathered on three visits there with the OSTIV Mountain Wave Project.

That bold decision to continue was based, he says, on the knowledge he accumulated since his first visit to the Alps 22 years and 8000 hours ago. "I didn't want to damage the glider," he explains, "but people don't realize how fast you can go in the final hour. I know it's possible to do 200 kilometres in an hour if you are at this height and know how the wave works — and I knew that the waves in the north were very good. At 20:10 we had exactly 40 minutes because the last legal time to land in Argentina is 20 minutes after sunset. We had 180 kilometres to fly."

My co-pilot, Alois Urbancic said, "No, let's go back." I said, "I will try it." ... It was fantastic because it was a race against time. It was amazing.

Not even landing was straightforward: strong winds at height had dropped to nothing at ground level. We were a little bit high, and I couldn't turn: I wasn't sure about the time, and a whole circle would need 30 seconds. So I turned right and left to use up some height. It was a very fast landing but the runway is long.

Alois, an Argentinian with 4000 gliding hours who flies from the Condor club near Buenos Aires, says, "When we landed we cracked open two bottles of mineral water! But later on we made it into the town and had a proper celebration with red wine." Klaus adds: "We needed two bottles of wine to calm down!"

Alois was chosen to fly on 26 November with Klaus after helping with work on the Stemme's landing gear. I said, "tomorrow will be a good day, let's fly together" — and then we made this flight, explains Klaus. It was unbelievable! Alois is a very good flatlands pilot but had never flown in these conditions. At 65, he was like a child. He was thrilled and for him it was really magic. To fly at 280–300 km/h and climb at 5 m/s: he couldn't believe it.

Alois adds: "It was the last part that was the most spectacular, and flying over snow-covered mountain ranges was beautiful."

The low point after launch from San Martin de los Andes was 2800 metres at Zapala, an airfield about ⇒ p18

The flight of a lifetime thanks to some bad weather

WE TAKE OFF from San Martin de los Andes around 0600 hours, a little late for a world record attempt: I want to do a 1700 kilometre out and return flight to the south.

Unfortunately, after about 500 km the initially excellent weather deteriorates dramatically. We abandon our task to try a record free flight around three TPs (Open Class) which currently stands at 2049.44 km, flown by Terry Delore in 1994 in New Zealand. At 1315 we're back over San Martin, having covered 1050 km. To the north there are lots of clouds from the approaching cold front.

After a long glide we contact rotor lift right over Zapala — the stepping stone for the wave system reaching from the Valley of Loncopue to the Cordillere del Viento. From there we continue in the lee of the main ridge via the Barrancas Valley and the Rio Grande, always above 5000 metres. At around 1600 we turn back south. If we make it home, we will have beaten the world record. But with 120 km to go we decide to exploit the extraordinarily good soaring conditions in the north rather than fight the bad weather back to San Martin. A wise decision: we learn that a Brazilian DG-500 takes forever to make it back. The

groundspeed rarely dips below 250 km/h as we race north.

Then I face a critical decision: to head to the airfield at Chos Malal for a landing — wasting a lot of kilometres — or to gamble on the tailwind and try to make it north to Malargue, risking arriving too late to land in official daylight. At 2010, with legal sunset at 2054, to decide to fly another 180 km would be a truly gutsy move. Our actual groundspeed of 300 km/h pushes me towards an all-or-nothing bid. Just in time, after 14 hours and 20 minutes, our miracle bird touches down in Malargue.

All the bells and whistles

the “Bald Eagle”

DURING THE WINTER SEASON, some people pass the time by attending cross-country clinics in anticipation of summer. Me? I decided to brush up on my trailer-towing. Always a useful skill around SOSA on a busy day. I learned a few new techniques, but mostly I gained an appreciation for the quality of the options available on finer tow vehicles. I first became aware of the value of a comfortable tow vehicle some years ago when my crew retrieved me on a very hot day in my own car, complaining bitterly about the broken air conditioner. They were in such a foul mood by the time they arrived at my landout site that they actually tried to make *me* feel sorry for how *their* day had gone. They had lost the sense of humour that is such a pivotal quality in these situations, and were unable to properly handle the stresses of derigging. Anyway, I was given the opportunity to study the issue while moving a couple of ships long distances for people who had less leisure time than me. And in the process, I was banned from two major tourist areas.

The first outing was to take this guy's Mazda pickup from Toronto to Worcester Mass. to bring back his recently purchased ASW-17, which was once owned by Karl Striedieck, of Bald Eagle Ridge fame. How could I, of all people, resist? I have always hankered to visit the Boston area, and especially to meet the people of Worcester. My father's family emigrated from Worcester to Canada in 1776 to protest the American Revolution. Dad claimed this made us United Empire Loyalists. A draft-dodger friend of mine once told him that it made us Draft Dodgers. My father failed to appreciate the comparison, but I did learn from him an appreciation for our past. Apparently we come from a long line of cowards who fear authoritarian men in uniforms with weapons. Authoritarian women in uniforms, my Dad said, are a different story. But I digress.

While in Worcester, I also wanted to find the origin of their zesty sauce, which is, of course, a key ingredient in many hangover remedies. I learned an appreciation of that from my father, as well. So there I was, heading along the Interstate, enroute to investigate my past — both the ancestors and the hangovers. Now, the entire trip was made in below VFR conditions. There might be some great scenery along this highway, but I'll never know. Visibility was marginal, and I was worried about seeing ahead, and also about being struck from behind, especially during lane changes. This fear was made worse by the lack of trailer lights and by ineffective side mirrors. Why didn't the lights work, you ask? Well, for starters, they never do. In this case, my guy claimed he had been visiting his partner Ray, and Ray's dog had chewed on the truck's wiring harness. Doesn't this sound a little like, “The dog ate my homework.” Personally, I have trouble with this story, because a guy who gets retrieved as much as Ray needs to, would always ensure the equipment is in top shape. He would also most likely need to have a more helpful dog like, say, Lassie, who he could send to get Gramps for help whenever he lands out. Anyway, a few jumper wires and lots of duct

tape later, it became apparent that the trailer lights themselves were unserviceable. With the weather deteriorating, I decided to forego further repairs and make a dash for home.

As for the mirrors, they were covered with sleet. Trying to improve the situation, I rolled down the window, by hand, so I could scrape the mirror, with the same, cold, wet, bare hand. The reason I note this manual stuff is that my next trip was in a new Jaguar with power everything including windows *and* electrically heated mirrors, which were sleet-proof. But here and now, all I could do was to reach out and smear the mirrors, making things worse. And more sleet was coming in the window and covering my glasses. As I used the windshield washers, I had an inspiration. Perhaps if I were to spit out the window, onto the mirror, it just might melt some of the ice and wash off some of the dirt. Especially since I had the foresight to have a mouthful of hot coffee. Sometimes I am so clever, I amaze even myself.

So, I calculated the aiming point as carefully as a final approach to a spot landing, raised my head to get the right angle of attack, and let go. But I didn't allow for the drift. Now, some of you may have seen how a very strong headwind can make things go backwards. Well, the Mazda-created headwind overcame my lung power, and this large, brown cumulonimbus, saturated beyond the dew point, came floating back through the window onto my glasses and did not, in fact, melt any of the sleet thereon. As dark approached, I took refuge in Niagara Falls, spending the night with my friend Wolf Gower. Wolf sort of bonded with me by showing me a historic picture of himself at the scene of the very first landout of an LS-8 in Canada. However, apparently I snored so loudly through the night that his parents have permanently banned me from the Falls. I blame sinus trouble from having to drive with a wet face and the window open.

The next trip was to use a Jaguar convertible to tow a Ventus from Toronto to Seminole Gliderport, near Orlando in Florida. Again I was trying to outrun bad weather and a Jag will outrun most things. Yet again, the lights wouldn't work — you would think that a trailer with European-style lights, hooked to a European car, would be a natural fit, but you'd be wrong. Fortunately, even though I couldn't signal my turns, the heated mirrors afforded a pristine view of the irate drivers behind me.

Now, a few years ago, I wrote about trailering through downtown Montreal in *Hour de Rushe* of a long *Fin de Semaine*, making frequent lane changes, and the effect my Ontario plates had upon Québécois feelings of federalism. Well, I'm here to tell you that on a three-day trip, if you get up at the appropriate time, and drive at the appropriate speed, and time the rest stops just right, you can hit the morning *and* evening rush hours of most major American cities on the Eastern seaboard.

As luck would have it, this was the weekend that George Dubya was being inaugurated as president. As you may know, many Canadians are concerned about his attitude toward us, and worry about a looming negative change in US foreign policy. Jean Chretien had just lobbied long and hard to be the first head of state to set up a visit, to try and stave off such things as retribution against former United Empire Loyalists. All visiting Canadians were out to make a good impression. Except me. The unsignaled stops and the Ontario plates were an international incident waiting to happen. Once again, I amazed myself and most of the other drivers around. We were crawling along in heavy traffic, when I remembered that you can electrically lower the top on the Jaguar if travelling at less than 15 km/h. So I did.

Now I was able to make hand signals that were visible to those guys behind me. I could do it on both sides by switching hands. And I would add a jaunty wave to show gratitude for their sharing the road with the world's Longest Unde-fended Trailer. It was cold, but I was in a Jaguar! So there I was, proudly sporting the old Toronto Maple Leaf's toque, and enjoying the heated seats more than the Jaguar designer could have ever imagined. I experimented after nightfall with making signals while holding my flashlight, but, after whacking myself upside the head during a complicated lane change that involved switching the flashlight between hands, I gave up and stopped for the evening.

The next day, I did the regular Daily Inspection on the lights, and found that part of the problem was some burnt-out bulbs. I also found that European bulbs are difficult to find in the southern USA. That night found me in Atlanta, visiting my friend Tom, a retired Special Forces colonel who generally wears a shirt reading, "I am an American Paratrooper. I visit exotic places, meet interesting people, and kill them." Tom lives in the country and wasn't home when I arrived, and I set off the burglar alarm while attempting unlawful entry. This meant I had to answer a lot of questions from the Georgia State Patrol. Men in uniforms, with weapons. I decided to apologize for the 1993 World Series in order to distract them from either a vehicle light check or embarrassing questions regarding 1776. (How many of you remember Kelly Gruber mocking the Tomahawk Chop?)

Lest you think that I exaggerate my fear of being shot by Tom or the cops, may I say that while in Atlanta I dined with Tom's minister, who noted that in their church the Men's Gun Club meets in the basement on Thursday evenings. Tom's unit used to practise with paper targets that resembled hippies, communists, and other Enemies of the State. I asked what the church targets resembled and he said, Lutherans. Anyway, when Tom arrived, I noticed that he had a Mercedes that he brought home from a tour in Germany and, *Gott im Himmel*, it had the same type of light bulb. I say "had", because three of them are now installed in the Ventus trailer. I departed very early one morning, at a time of day Tom's army buddies call Oh-Dark-30. Under cover, and with my face blackened, I stealthily snuck up on the unsecured vehicle and carried out a search-and-seizure mission. Pretty brave I thought, all things considered. In payment, I left him a coupon good for one free intro ride at SOSA.

Similar to the previous trip, rain was my frequent companion. An interesting option on the Jaguar is a sensor that automatically turns on the wipers when moisture is present. This meant I could relax, listen to Willie Nelson, and be assured of good vision. As I entered Florida, the rain stopped. I really liked playing with all the electronic toys, and I was curious to see just how sensitive the wipers were. I briefly debated lowering the power window and trying to spit onto the windshield, but then remembered Ian Oldaker's Rule of Primacy.

Another feature on this car is an outside temperature gauge. I was monitoring this closely, and when it finally read above freezing, I slowed to 15 km/h, pushed the "TOP DOWN" button, and activated the heated seats. I was somewhat mindful of my father's admonition not to leave the door open in winter. He wouldn't have had to worry about that if we hadn't moved to Canada.

That evening, having impressed the gang at Seminole by arriving with the top down and the heater going full blast, they invited me to join them for ribs and fried greens at the Beaches Country Store and Truck Stop. Sophisticated woman that she is, Barbara Weir, snowbirding with husband Walter from COSA, ordered wine with dinner and it came in one of the four wine glasses that the place saves for discriminating guests. I suspect that the rest had been broken during Happy Hour, which starts at 5:30 and generally goes until the first fist fight. Walter noted that last night the wine came in a frosted beer mug. Real classy joint. Probably most people just drink out of the bottle. I think I saw Worcester sauce on the breakfast menu. (On a related topic, SOSA is hosting the Nationals this year. For one of the dinners, Steve Burany wants to get some home-made Hungarian wine — I cannot resist asking if anyone knows how to make a Hungarian wine.)

Now, I had just spent several days reading the extensive Jaguar user's manual, and trying out all the gadgets. In addition, I'd become something of an electrical expert, what with all the lighting issues on both trailers. I figure it → p21



... and carried out a search and seizure mission.

SAC accident report 2000

Dan Cook, National Safety Officer

THE REPORT FOR LAST YEAR includes both good news and bad news. On the positive side we have reduced our (reported) accident rate by about one half from the previous year. Unfortunately, we had another death as a result of a stall/spin accident. Our goal is to reduce our accident rate four-fold ("Safety times Four") so we are on the right track but still have a way to go.

The safety audits and safety seminars last year have been a proactive means to achieve this goal and more follow-up is planned. It is too soon to say if this is having a real impact. Although saddened by the loss of a highly respected member, I am encouraged by the change in direction and pray that it's not attributed to a poor weather season and reduced flying activity! In 1999 we had 25 accidents, 4 deaths, 3 injuries and 18 aircraft destroyed. In 2000, we had 14 accidents as follows: 1 fatal accident, 5 aircraft destroyed, 5 aircraft substantially damaged, 3 aircraft with minor damage. How does this compare to previous years?

Year	89	90	91	92	93	94	95	96	97	98	99	00
Flying	-	19	15	16	30	31	20	13	10	-	16	12
Total	9	29	22	23	34	33	23	18	12	8	25	14
Fatal	0	4	1	2	0	0	0	0	0	0	4	1

What happened in 2000?

Fatal Standard Austria entered a stall/spin from 50 feet on a winch launch. Slight tailwind gust noticed at take-off by witnesses. Glider observed lowering nose, then pitch up 20 degrees before stall. Pilot experienced.

Write-off Schweizer 1-36 was destroyed in off-field landing attempt when glider was ground looped to avoid collision with trees. Pilot experienced heavy sink shortly off tow and tried to return to the airfield where no good off-field landing options existed. Pilot experienced.

Write-off Pilatus was destroyed in a ground loop at a small private airstrip during an off-field landing recovery by aerotow. Tall grass/crops on the side of runway caught wingtip on lift off. Take-off was second attempt after first attempt was aborted when the wing tip brushed the crop. Pilot experienced, but had low time on type.

Write-off Maule towplane flipped over during hard breaking on landing to avoid deer. Pilot experienced.

Write-off Krosnos trainer landed in trees in off-field landing attempt in heavy sink. Pilot became disoriented after release at 3000 feet and could not locate the field. Glider drifted too far downwind to make final glide when position was identified. Pilot was newly licensed and had two check flights at the field without difficulty. Pilot inexperienced and low time on type.

Write off SZD-55 stalled on base leg approach during an off-field landing attempt after aborting a final glide. Pilot opened spoilers when approach speed appeared too fast. Final turn would have been less than fifty feet. The pilot sustained minor injuries. Pilot experienced.

Substantial damage DG-400 motorglider struck a wing on ground during turn to final. Pilot had attempted to start motor after determining two gliders were ahead and higher in the circuit. Drag of engine and mast reduced glide slope in circuit and the pilot was distracted until impact. Pilot experienced.

Substantial damage L-13 Blanik was hard landed and broke the tailplane off following an undershoot approach where contact was made fifty feet from runway threshold with a tree, bushes, and then a fence post. Spoilers observed fully open throughout base leg and final approach. Pilot experienced.

Substantial damage K7 two seat trainer undershot the runway threshold during a landing on a passenger flight. The pilot had noted heavy sink and turbulence on base leg and closed spoilers. Spoilers partially opened unnoticed on final contributing to the undershoot. Wings and spoilers damaged. Pilot experienced.

Substantial damage Citabria towplane undercarriage collapsed while it was taxiing back to the apron after landing. A king bolt holding the gear under the fuselage sheared off. Later analysis determined that the under-torque of the king bolts during gear removal/installation for non-destructive testing had led to fatigue/failure of the bolt.

Minor damage Libelle collided with the rudder of another glider on the runway following a heavy landing on a soft field. Full direction control was not maintained after landing and the glider veered towards a previously landed glider. The tail of the second glider in the collision was still partially on the active runway due to difficulty in moving it on the soft field and long turf. Pilot experienced.

Minor damage Discus had minor damage in an off-field landing attempt in difficult desert terrain. Pilot experienced heavy sink, which reduced final glide. Pilot experienced.

Minor damage ASW-27 ground looped on a take-off attempt in gusty crosswind conditions (10 knots). Pilot experienced but low time on type.

Minor damage Krosno canopy was broken. No details available.

Accident analysis

These accidents can be grouped into two take-off related, ten landing related, and possibly two maintenance related. In some of these cases, very few flying hours were identified in the previous month indicating currency and low time on type may have been significant factors. Four accidents were related to off-field landing attempts and trying to return to the departure point despite lack of height when other options were possibly available. Some may have involved a reluctance to follow established off-field landing procedures. Often pilots feel pressure from the perceived inconvenience or embarrassment of a landout and opt to push on in the hope they can make it back.

A recurring theme surfaces for the two accidents involving spoilers being sucked out without the pilots noticing. Both the aircraft involved have a poor track record for this type of incident/accident causing undershoots. However, pilots will continue to make this type of error. How can we mitigate this problem? Possibly by adapting our circuits to allow for a potential reduced glide angle when flying this type.

Accidents related to maintenance are often a question of when do you invest your effort and money, before or after the accident? In gliding, as in other safety-related activities, we employ a double check system. When something is repaired or reassembled, a separate knowledgeable person should check the work done. This is a tried and proven practice used in commercial airline maintenance.

Preoccupation or distraction when landing an aircraft is critical. This is one of the most risky phases of flight, especially for glider pilots. Motorgliders provide a great advantage and freedom for pilots but many have got into trouble if they rely on them when planning their flight. A glider should be treated as such when circuit height is reached.

The accident occurring in an off-field recovery on a narrow runway involved catching the crop with a wing tip on the attempted take-off. No matter how skilled we are, when these margins of safety are removed our risk goes up exponentially. Take-offs and landings are where most accidents happen. A trailer recovery can greatly reduce this risk.

The next item deals with the understanding of Air Cadet training which may have been a factor in one of these accidents. These pilots are very well trained to fly and are very enthusiastic. However, they lack a great deal of experience (weather, different site conditions, flying beyond gliding distance of field, thermalling, etc.) compared to SAC-trained pilots, and are not used to operating in a much less supervised flight environment. This means we have to assume nothing about the scope of their experience and we must provide them with the mentoring they need. Most often this will mean dual practice of the "SOAR" technique, off-field landing situations, site checks and thermalling experience before they leave the field on their own recognizance. If we apply the SAC recommended licensing standards for all pilots new to the club, it will serve us well. Air Cadets can and will contribute greatly to the soaring movement.

The last issue to address involves the fatal accident. At most we can make our best guesses and we rely heavily on observations at the accident location (the Safety Officer, Richard Vine, wrote an excellent accident report). The glider involved (a Standard Austria) is reported by pilots to be very unforgiving at slow speeds. A Vee-tail trim-actuator was reported missing from the wreckage, which (according to the report) could lead to control stick forces being reduced by half. This would have made control difficult, but this is inconclusive as being the cause of the accident.

Other factors such as thermal gusts and winch speed may have affected the situation. For example, the club was in the process of changing ends because the wind was now favouring the other end. However the pilot elected to make the take-off in any case. Note that there could have been a tailwind gust at or immediately above tree height that was not felt on the ground. This means the airspeed would have been reducing as the glider climbed, and if the pilot was "pulling up" hard, he would have had problems with lateral control if close to the stall speed — a classic entry to a snap roll. The situation appears to be an unfortunate case of several factors all occurring together to become the necessary sequence that led to the accident (again, the Swiss cheese model).

Where do we go from here?

Risks

What we have been talking about so far are the risks and the management of risk. Most accident/incident analysis deals with the risk after the fact. What needs to be done now at the club level, to make this report of any use, is to review your club's safety audit along with this accident report and last year's (*in free flight 4/2000*). Based on the information available, clubs can identify and evaluate their own hazards and make a risk assessment (see Table A below). Each hazard can be assigned a value based on

	<i>Catastrophic</i> (1)	<i>Critical</i> (2)	<i>Marginal</i> (3)	<i>Neglig.</i> (4)
<i>Frequent (A)</i>	1A	2A	3A	4A
<i>Probable (B)</i>	1B	2B	3B	4B
<i>Occasional (C)</i>	1C	2C	3C	4C
<i>Remote (D)</i>	1D	2D	3D	4D
<i>Improbable (E)</i>	1E	2E	3E	4E

<i>Risk index</i>	<i>Suggested criteria</i>
	Unacceptable
	Undesirable (club decision required)
	Acceptable with club review
	Acceptable without review

its possible frequency and impact assessment. This allows hazard comparison, prioritization, and provides guidelines on acceptability of risk.

Once your risks are identified you can develop counter-measures to mitigate the risks, keeping in mind ⇨ **p18**

Hangar flying

2000 Sporting committee report

After the 2000 SAC AGM Tony Burton resigned from the Sporting committee to take on other soaring related challenges. Tony's contribution has been invaluable over the years and I personally have very much enjoyed working with him. His expertise in Sporting Code matters is greatly missed. Fortunately Walter Weir accepted the invitation to join the committee. Walter brings a wealth of knowledge and experience to the table. He has extensive and up to date experience in Canadian and US competitions. As holder of many current Canadian Records and acting as the SAC Badge chairman, he is very familiar with Sporting Code issues, both from the pilot's perspective as well as from the perspective of the approval authority.

Completed projects

2000 National Soaring Competition rules

Changes to the Nationals Rules which had been extensively pre-discussed on the Roundtable were wrapped up during the Sporting committee workshop at the SAC AGM in Montreal and forwarded to the Board for approval. The document *2000 National Soaring Competition RULES AND REGULATIONS* was issued and the scoring software changed accordingly.

Competitor feedback session

During the 2000 Nationals competitors were invited to comment on the Nationals Rules during a session hosted by the Sporting committee. The suggested changes are listed in the document *Pilot Feedback 7-2000* and will be further discussed on the Roundtable.

Team selection policy and seeding list

At the 2000 AGM Sporting committee workshop, a 1999 ruling of the committee to allow pilots of all classes to qualify for Club class Worlds was confirmed. However, during and after the 2000 Nationals this team selection policy was questioned by a few Club class pilots. The reasons for selecting pilots for the Club class Worlds from all classes are:

- At the Worlds level, Club class is highly competitive whereas it is the goal of our current Canadian Club class to introduce novices and club pilots to competitive soaring.
- The sailplanes used in the Club class Worlds are essentially the same as used in Canadian Std and 15m classes (LS-4, DG-400, etc), therefore our Std and 15m pilots are well trained for this contest.
- Selecting the team exclusively from the Canadian Club class would result in top pilots from 15m and Std competing in Club class, effectively shutting out traditional Club class pilots.

Significant time was spent corresponding with a few Club class pilots on this subject. As it turned out, no 15m or Std class pilot elected to fly in the first World Club class Championships in Gawler, Australia. The only participant was the winner of this year's Club class Nationals. Having learned from this episode, the Sporting committee will strive to improve effective communication with competition pilots and the general membership. The 2000 seeding list and team for the Club class Worlds were established after the Nationals and published.

Registration of the Canadian competitor at the World Club Class Championships

The Sporting committee provided the liaison to the organizers of the World Club class Championships and registered Heri Pözl, this year's winner of the Canadian Club class. Our best wishes for a safe and successful competition accompany Heri to Gawler.

Ongoing Projects and Issues

Review of the rules for the 2001 Nationals

A Roundtable discussion on the suggestions from the competitor feedback session is currently underway. There are also editorial changes necessary to remove ambiguities.

New scoring software

Nick Bonnière has developed scoring software that transfers scoring data directly from the flight data analysis software, eliminating the need to re-input data with the possibility of typographical errors. The software is currently being tested for approval by the Sporting committee with the goal to use it for the 2001 Nationals.

Review of Canadian scoring formula

The current Canadian scoring formula results in overly severe penalties for landing out on days where there is only one or very few finishers. As a result, one lucky pilot finishing on such a day can gain a large advantage over the rest of the field that catching up on regular speed days can be almost impossible. An analysis of the Canadian system alongside the US, UK and Worlds scoring systems has shown that we have the only system with a discontinuity in the speed/distance points ratio (as soon as there is one finisher we jump from 0.0 to .333). The graphs in Colin's document *scoreegs.doc* illustrate the problem. The committee is currently discussing the issue with the goal to find solutions.

Team selection policy

World class In 1998 it was decided to seed World class pilots in Sports class due to the lack of a viable PW-5 class in Canada at the time. This arrangement was carried over

when Sports class was transformed into Club class since a viable World class still did not exist. The introduction of Club Class World Championships has attracted high performance gliders into the Canadian Club class. PW-5 pilots are now facing the difficult task of competing against high performance sailplanes. The handicap system is not suitable to bridge such a large performance gap. A new seeding policy for World Class World Championships should be developed.

We could consider to determine the seeding for PW-5 gliders from a subset of Club class participants with handicap factors equal or greater than 1. This issue will be discussed at the Roundtable.

18m class At this time there is no viable 18m class in Canada. Considering the difficulties of finding reasonable numbers of contestants for the Std and 15m classes it is questionable if an 18m class would ever be feasible. However, the 18m class is very popular at the World level. It seems reasonable to select participants in 18m events from the Canadian Std and 15m classes using the regular seeding list for the following reasons:

- 18m gliders are similar in handling to Std and 15m gliders. In fact, many Std and 15m gliders in Canada today can be flown with extended wingspan.
- Std and 15m classes in Canada are both equally competitive which is evidenced by the combined scores which have been prepared for several recent Nationals.

However, due to limited funding, priority in this area should remain with Std and 15m classes

World Air Games The IGC sees the World Air Games as the highest priority competition and is asking the National Aero Clubs to give funding priority to World Air Game participants. Notwithstanding the fact that the soaring competitions in the WAG will utilize World class gliders, the committee feels the qualification for the WAG should not be limited to World class gliders for the following reasons:

- There is no viable World class in Canada
- The best pilot in Canada should be sent to such a high profile event.

Timing of team selection

Last year the committee recommended to select the Team for world championships at least ten months in advance to allow pilots a reasonable time to prepare. It was further recommended to implement this rule so it would be in effect before South Africa 2001. The committee feels there was not enough opportunity for consultation before the 2000 Nationals which would be the basis to determine the Team for South Africa if this rule were implemented.

Recommendation: Discuss on the Roundtable and implement after South Africa.

Lithuanian entrepreneurship

The scene is the World Soaring Championships at Borlange, Sweden in 1993. Lithuania had just escaped from Russian oppression and gliding was starting to operate under a free enterprise regime.

Very short of money, the Lithuanians could not afford the entry fee for the contest but they believed they had an idea that just might get them to the start line on Day 1.

Three days before the championships started, a Russian Antonov (AN-2), the largest biplane in the world, a 10-12 seater with a 1000 hp radial engine, took off from Lithuania with two gliders in tow. Flying at 500 feet above the Baltic Sea, they made their way towards Sweden without a flight plan — a journey of over 600 miles! Midway they triggered Sweden's air defense system, and interceptors were dispatched to get the answer to the blips on their radar screens.

They were allowed to continue on their epic journey, customs were alerted, and they finally broke radio silence to let the authorities know that they would arrive at Borlänge at 4 pm. In reality, they knew they would get there at 2 pm, giving them time to unload their marketable consignment of Lithuanian booze and aircraft instruments.

They quickly got to work and sold the load, so the entry fee was taken care of with enough left over for competition tows. But they didn't have enough money for fuel for the return trip.

The Antonov created immense interest as few had seen one before. Despite having no licence to do so, despite the aircraft not being commercially rated, they took the oppor-

Attracting novices to competitive soaring

The recent Roundtable discussion in regards to holding Nationals in Uvalde and east vs. west is revealing a disturbing trend: there is little enthusiasm left for eastern pilots to travel to Nationals in the west and there was never much western participation in eastern competitions. The fact that the price for gasoline has risen by 50% over the last two years is making matters worse.

It is quite possible that Canadians from all parts of the country will not come together in one Nationals any more. Furthermore, it may not even be feasible to hold Nationals in the west due to low participation. The western competition scene would certainly wither as a result. However, technology may offer us new ways to compete. Today, flight data can easily be shared and analyzed over the internet. In this case distance is no factor.

The introduction of an ongoing, decentralized competition all across the country would be one way to keep contest pilots interested and to also draw novices into the field of competition. This type of competition has been very successful in other countries, such as the UK and Germany. CAS is currently trying to expand this concept nationwide as the Decentralized Nationals by dropping the requirement for CAS membership and offering cash prizes.

Recommendation: Support CAS in this effort and align the various SAC trophies and awards with the rules for the Decentralized Nationals.

Contest Cookbook

The *Contest Cookbook* was created by Tony Burton as a how-to manual for contest organizers. Since contest rules now require GPS evidence, Tony felt it would be better to

hand off this responsibility to someone with current contest-running experience. Larry Springford, who has extensive experience as Contest Director, has accepted the responsibility to update the *Contest Cookbook* in conjunction with the Sporting committee.

IGC meeting Last year Hal Werneburg attended the IGC meeting in Lausanne in March 2000 on behalf of SAC. The cost to SAC was low since Hal was travelling in Europe at the time. This year Hal is not available. Although I usually travel to Switzerland in March, my travel schedule was different this year. If we cannot find a suitable representative who can combine his attendance at the meeting with travel in Europe we will have to decide if attending the IGC meeting is worth the expense of sending a delegate to Europe for the sole purpose of having Canada represented at the meeting.

Records administration So far, no volunteer has come forward to take over the responsibility of processing Canadian record claims. If this position cannot be filled before the season starts it could be a serious problem. It would make sense to combine the processing of record claims with the processing of badge claims. However, Walter's workload between the Sporting committee and handling badge claims is already high. In a volunteer organization there is always the danger of burning out the volunteers.

On a personal note, I want to thank my fellow committee members, Walter and Colin, as well as Larry Springford for their support and dedication. I would also recommend that SAC give recognition to Ursula Wiese for maintaining historical records such as the *Book of the Best* and monitoring the awards policies for trophies.

Jörg Stieber, chairman

SAC SUPPLIES FOR CERTIFICATES AND BADGES

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

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

ARTICLES ACVV POUR CERTIFICATS ET INSIGNES

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

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

tunity to give paying joy rides and carried on doing so until the end of the championships. That gave them the funds to buy the fuel required. Full marks to Lithuania!

John Roake, from NZ Gliding Kiwi

Another win for Steve

More good news for Steven Liard of SOSA, a professional photographer who recently won the *Aviation Week & Space Technology* magazine annual photo contest with a spectacular soaring shot. He was called by the National Aviation Museum in Ottawa who sponsor a photo contest for the best of aviation photography in Canada. The contest and display at the museum is called *Artflight 2000*.

Guess what photo won the Grand Prize. Yup ... it was him again. Steven said, "This time the prize was the nice sum of \$2500. So, coupled with the *AW&ST* prize money, this photo has earned me over \$4000 these past few months. Should pay for a few tows at least. And the photo (16" x 20" matted and framed) will now become part of the permanent collection of the museum. Great advertising for soaring. By the way ... I had to officially title the photo so it is now called "*Chandelle Apogee*" which I thought sounds kinda neat."

CAS Decentralized Nationals 2000 results

The winners of the Decentralized Nationals for 2000 are shown in the table below. The table lists the competitors and results in each class. We hope to have more people enter the competition next year. To enter, simply go to the Decentralized Nationals section of the CAS web page and enter your flight online. There is no paperwork, and there is no requirement to submit proof of a claim unless you win your class.

pilot	class	score	club
Tony Burton	Open	3848	Cu Nim
Trevor Florence	Open	3770	ISC
Dave Springford	Open	2009	SOSA
Jörg Stieber	Open	1424	SOSA
Gille-André Séguin	Open	802	MSC
Dave Springford	Weekend	2009	SOSA
Ian Grant	Weekend	493	GGC
Denis Trudel	Novice	177	AVVC

In the Open class, Tony accumulated a total of 3848 points from four flights. Tony's best flight was a 607 km 3TP distance flight at a raw speed of 90 km/h in his RS-15. His other flights were 535 km, 440 km and 198 km. A close second in the Open class was Trevor Florence, with 3770 points from four flights. Trevor's best flight was a World class record of 638 km at 87 km/h in a PW-5 flown out of Invermere. His other flights were 687 km, 580 km, and 322 km in an ASW-20.

Dave Springford, in the Weekend class, accumulated 2009 points flying his LS-6 around four tasks of 502 km, 417 km, 370 km and 245 km (all in SW Ontario) with a best speed of 92 km/h around the 370 km task.

In the Novice class Denis Trudel, flying a Pilatus B4, earned 177 points from one flight that included his Silver height gain.

Congratulations to the winners — each of them will receive a \$100 cash prize donated by Heri Pözl.

Dave Springford

Order info – NZ promo video

The Alberta Soaring Council recently received 450 of the great soaring videos from New Zealand for the Alberta clubs.

Clubs can give them away for their membership promotional efforts or sell them as a fund raiser. Good luck to them; it's all about spreading the word on the sport. All that's required is an e-mail to John Roake at <john@roake.gen.nz> with your Visa or MC number. The videos (US\$2.90 each) are shipped air freight and arrive within a week. John reports that over 13,000 copies have been sold in English, French, German, Dutch and Spanish language versions are ready. John notes that he has an outline on paper for a 2002 video release, designed to re-energize the pilot with a Silver C (say after about three years) and is about to exit the sport.

On delivery to the airport of your choice, you pay brokerage, duty, and the GST. For our delivery, the total cost per video worked out to \$6.23. The videos are sold in boxes of 45 and the minimum order is 3 boxes. I would recommend that nearby clubs get together for a bulk order if you don't need the minimum quantity individually.

Tony Burton

Sporting Code update

The annual IGC meeting on 9-10 March has dealt with recent concerns regarding the interminable suggestions to make changes to the Sporting Code. On one side were calls to have a moratorium on changes since it was getting difficult to get a handle on understanding on the Code. On the other side were calls to leave it to the intelligence of IGC delegates to decide on what changes are really necessary. Part of the problem was that proposed changes could go on a meeting agenda without the ability of delegates to take a hard look at the potential long term consequences prior to a vote.

The decision was a third choice — henceforth, change will be required to go through a well-defined pre-screening process that will allow detailed consideration prior to a vote. More about this later.

Tony Burton



Coming Events

19-27 May **Invermere Soaring Camp**
The Camp is again an informal meeting, run in conjunction with Invermere Soaring Centre and the Canadian Rockies Soaring Club. Pilots' meetings held each morning for weather briefings, task planning, and coaching. The ISC has great weather info and pilot resources (check ISC's web site for local info: <www.soartherockies.com>. A PW-5, Lark, 2-33, and Duo Discus will be available. For rental details and rates, see ISC.

3-8 June **Eastern Instructor Course**
MSC in Hawkesbury. For info and applications contact Tom Coulson (519) 651-2779, <tcoulson@istar.ca>.

17-23 June **Western Instructor Course**
Chipman, AB. If interested, call Terry Southwood, (403) 255-4667.

27 Jun - 6 Jul **National Soaring Contest**
SOSA. Practice days 25-26 June and the contest runs from 27 June. CD Larry Springford. See details on SAC web site.

28 Jul - 6 Aug **Cowley Summer Camp & Alberta Provincials**
The great soaring event & locale. Fun provincials mid-week. Contact: Tony Burton, <free-flt@agt.net> (403) 625-4563.

TORONTO AREA GLIDER PILOT GROUND SCHOOL
Spring 2001 Session starting 9 May

York Soaring will be hosting a Glider Pilot Ground School directed at beginning pilots to prepare them both for basic flight training and the TC exam.

The spring course will start 9 May and will be held at the University of Toronto's Erindale Campus in Mississauga. The eight session Ground School will be taught on Wednesday evenings from 7:30-10:30 pm. The course meets Transport Canada's licensing requirement for 15 hours of ground school and to prepare the student to write the Glider Pilot exam. However, other aspects of soaring of a more general nature will be covered as well. The material will be presented in a lecture format supported by videos.

Erindale College is on the east side of Mississauga Road just north of Dundas Street in Mississauga. For registration information or if you have any questions on the course itself, please contact Ulf Boehlau: days <ulf@problem.org> (416) 410-3883 eves <uboehlau@yahoo.com> (905) 884-3166

For more info, visit the York Soaring web site: <www.yorksoaring.com>.

Grand Prix

from page 7

after the second turn had deteriorated, enabling me to catch up and join a gaggle of six low in their thermal, but just as I arrived, Benno left us and disappeared toward Gawler. The lift faltered; I pushed off and was just one weak thermal ahead of the others, when enough height was finally gained for a final glide into the 20 knot headwind.

Passing the contest's remote landing field about 20 km out, my "100 ft = 1 km" glide path had no cushion; I would have to bump through some lift to get back. At 15 km, I called Canada Ground to "stand by for a possible landout". At 10 km out, the sink had increased; a field was reluctantly chosen, and I resigned myself to being at best second, or even third. However, the landing pattern was, by design, directly over a large dark field.

At Gawler, a lady with binoculars focussed on a glider disappearing behind the trees on the horizon. My son apparently said, "I wonder where that poor idiot is going to end up." From their vantage point, they could see nothing but buildings. I was the poor idiot and I was going to end up with some sheep. My turn at 200 feet entering the base leg was in very weak lift. Zero. A complete circle revealed a thermal. Weak, but a thermal. Two turns, then three. Brian called. I replied, "Busy!" Everyone else had probably passed overhead. Gradually the thermal grew stronger.

At the finish line, the lady with the glasses reported the glider had reappeared, just above the trees, slowly climbing. Then they heard, "Foxtrot November, ten kilometres." Jason told me the finish line burst into cheers. My "On final" radio call on the approach was acknowledged with, "Congratulations, Hula Girl!" I landed, just glad to be back, still thinking I was third at best. I felt drained, weak, dehydrated, and my hair and clothes wet, soaked from sweating. Only after seeing the empty tie-down spaces on the grass did I realize the "Congratulations, Hula Girl" was not for just getting back, it was for winning. ❖

On the Club class

from page 8

wins, or the glider that flies furthest wins. Simple. On every day I knew immediately on landing what place had been achieved. To be closer to a level playing field, a restricted range of competing gliders was allowed; gliders with performance comparable to the Discus a/b, LS8, ASW-20/20b, -24, -27, Ventus a/b/c and the LS6. Gliders could use water ballast to a max wingloading of 43 kg/m² or 45 kg/m² for Standard class gliders. This was done to ensure minimum performance variation between different glider types, and the gliders were weighed daily at the maximum permitted wing loading.

There is another difference between the two classes, possibly more significant — the luck factor. In the Grand Prix, having a start time and task (and consequently, weather conditions) in common contributed its pilots enjoying a common, but lower luck factor.

We have been aware of the risks inherent in gaggle flying for a long time. I believe the Grand Prix, in this regard, to be much safer. Surprisingly, gaggle flying occurred only occasionally prior to starting (infrequently even then) due to the remote, 4 km diameter starting point 15 km from the airfield. We would seldom meet, even at turnpoints. We certainly chased one another, but rarely saw large gaggles and only when the paths of the two classes crossed. Consider this — there is no advantage to be gained from lingering in a gaggle when everyone has the same start time. Followers followed, but lingering in a gaggle did not happen.

Gaggles would be even less likely to form at the start if, for example, in a task where the first turn is 100 km away, the start line was the circumference of a circle around the first turn. A start would be made the moment the GPS started counting down the 100 km.

A Grand Prix competition offers many advantages. It is simple to run and simple to score. I have never been an advocate of either PST or AAT tasking and really object

to having my score depend on a large luck factor, a winner's speed, or on the numbers of finishers. And why use the term, race? PST or AAT are not really races. What kind of a race is it when no one knows when anyone started or who won when it's over? Think about it — you get back from a race which you may have really enjoyed, perhaps even won, but you may have wait hours in suspense, possibly even till the next day, for the hapless scorers to produce the results. And then you may very well find out that your performance has been devalued because of a faster pilot or a poor showing by a large number of them. Ridiculous.

"The place scoring system rewards achievement without unduly punishing a poor performance." I believe the second part of this statement is more significant than the first. When a large portion of the points in a contest is awarded for speed, God help the pilot unfortunate enough to land out. In today's punitive scoring system, any possibility of winning will have been lost merely by landing as little as a few kilometres short. All the aspirations, the plans, the emotional and financial investment will have been for naught. You may as well pack up and go home; the contest is effectively over. But in a Grand Prix, a landout is no big deal. The scoring is the same, regardless of the number of finishers; one or none makes no difference. The current scoring system, which has evolved over many years, has become today's dinosaur — a well-intentioned, old, patched up, heavily modified and slow dinosaur.

How can we ever expect to increase participation in sailplane races, or even in our sport, when we are unable to explain in simple terms what a gliding competition is, let alone the scoring, to anyone interested enough to inquire? Qualified and willing volunteers to organize and run contests are also becoming progressively more difficult to find. Let's make things easier for everyone concerned. Soaring should be simpler, it should be enjoyable, and it should be safer.

Let's start racing in that direction. ❖

DG-303 Elan Club/Standard	1:41.5/43, acro +7, -5g
DG-800S 15/18	1:46/51.5
DG-808B 15/18 SOLO 53hp	1:46/51.5
DG-505 ORION 17/18/20	1:acro/40/44
DG-505 MB 20/22 SOLO 64hp	1:44/47
DG-1000 18/20	1:acro/43/46.5

DG 800 photo



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zero risk is unlikely (which is why we will always need insurance). The responsibility for acceptance of risk rests with the club leadership/management, *not* the CFI or Safety Officer. Next, take action to make the necessary changes, procedural, operational constraints, or operator improvements. An example of our control over risks involved a discussion with a gliding club about the "rights" of our pilots. The questions were: "Do we (clubs) have the right to tell our members when they can or can't fly their own aircraft, or to not buy a certain aircraft, or to prevent them from flying it?"

These are difficult questions to tackle when they challenge the personal freedoms of choice we all enjoy. On the surface you might agree, but what are the risks to pilot, club, and soaring organization as a whole? As a club organization we have the right to refuse to tow someone, or refuse to let him or her use club property/equipment. Club membership is not an exclusive right to ignore club rules or the CFI's determination of fitness to fly! If a member does not like a club's rules, he or she is free to go fly their personal airplane of choice from their backyard. All this is to say that we *do* have control over what really happens on and in our clubs.

Soaring on Discovery TV

The date for screening the soaring episode on the *Flight Path* series on Discovery Channel has been set (finally). Tune in 2 May, and check your TV schedule for repeat dates.



Unclear on the concept — pilot seating.

The last element of the risk management "Safety Cycle" is assessment and measurement. This is a means by which you look at your accidents and, more importantly, your incidents. Talk to and have safety discussions with the membership, and follow up earlier safety audits to provide feedback on the effectiveness of your club's safety program. This is then linked back to the first step of hazard identification/risk assessment.

I would like to mention here that small clubs are at the greatest risk. Fewer people to do the work from year to year can create burn-out and more shortcuts are taken for convenience. Loosening of safety rules and procedures is often more likely. If you find your club in this predicament be ever-vigilant. One serious accident has caused many clubs to fold. On the personal level, the table below shows you where we stand compared to other risks. Where do you want to be?

Table B	
High risk	requiring immediate action
Moderate risk	requiring action
Low risk	requiring planning
Very low risk	requiring monitoring only

Conclusion

We still have a long way to go and, unfortunately, injuries and the total amount of our insurance claims still means we have challenges to meet, safety-wise. The analysis above can help to identify many risk areas that require mitigation strategies at the club and national levels.

The key to improved safety is thorough follow-up action at the club level. Use your incident analysis and safety audits as tools, and let's try to halve the accident rate again with *no* deaths or injuries. ❖

150 kilometres away. Klaus' only mistake during the flight, he says, was falling out of the wave into turbulence. ("We had good luck," he adds, "and found 2 m/s.") The high point was around 6500 metres. "With 500-700 m more than I wanted, it was not possible to fly faster. You are always so close to the sailplane's speed limits. I respect a speed of something like 200 km/h at 6000 metres."

The rarefied atmosphere and the cold are also problems. "You can't economize on oxygen," says Klaus, "because all your decisions — and there are many — must be good. We used oxygen from the ground up: two bottles of five litres at 200 bars [2900 psi] for each pilot." A solar panel recharged the main battery for the engine and the auxiliary one powers the instruments. A third runs the flight recorder.

The engine, usually seen as a safety feature, is nothing of the sort. "At -35C outside," says Klaus, "not even a car motor would start!" Instead, he noted several small airstrips in the mountains and planned to land at one of them if necessary to warm the engine for a relaunch. You cannot say, 'I'll use the motor if there's nowhere to land'; or one day you will have a problem".

The story of this flight began four years ago, when Klaus visited Argentina with his wife, Sidonie, an airline pilot. They instantly saw its potential and returned in 1998. "That was my first experience here of wave," says Klaus. "It was great and I saw the chance of making the biggest flight in the world. If there's anywhere you can do it, it's here; the country is so big and the conditions are so good. But you need local experience, even if you can already fly wave cross-countries."

It took three years to realize his dream. In 1998, he spent five weeks at Chos Malal, and seven more in 1999 when he and Sidonie flew 1833 kilometres (his previous longest flight). He decided to stay for three months over 2000–2001, flying from San Martin, partly to test conditions in January. October might also be good for distance flights, though strong winds are a risk (once in the Rio Grande area, Klaus had an indicated airspeed of 100 km/h and a groundspeed of 20 km/h – backwards).

During November and December 2000, he thinks there were more than twenty 1000 kilometre days; and two when more than 2000 kilometres could have been flown. The first was 26 November, the second Christmas Eve. On the latter, he managed 1700 kilometres. What does he think is the longest flight possible? Perhaps, he says, he could have started forty-five minutes earlier, or abandoned his out and return attempt fifty minutes sooner. An hour could be worth 150–200 kilometres. So if all factors were favourable, 2600 kilometres might be on. ❖

SAC Clubs

Atlantic Zone

BLUENOSE SOARING CLUB
Pat Tye (902) 864-7736
club (902) 632-2088
www.chebucto.ns.ca/Recreation/BSC/

Quebec Zone

AERO CLUB DES OUTARDES
Gérard Savey (514) 621-4891

AVV CHAMPLAIN
Sylvain Bourque (514) 771-0500
www.echomtl.com/avvc/

CVV QUEBEC
Bruno Bégin (418) 337-4905
www.cvvq.net

MONTREAL SOARING COUNCIL
Peter Trent (514) 739-6182
airfield (613) 632-5438
www.flymsc.org

Ontario Zone

AIR SAILING CLUB
Oscar Boesch (416) 769-4000

ARTHUR GLIDING CLUB
10 Courtwood Place
North York, ON M2K 1Z9

BASE BORDEN SOARING
Ray Leiska (705) 424-2432 H
(705) 424-1200 x 2479 B

BEAVER VALLEY SOARING
Doug Munro (416) 466-1046
http://www.interlog.com/~kwithrow/
beaver.html

BONNECHERE SOARING
Iver Theilmann (613) 687-6836

CENTRAL ONTARIO SOARING ASSN
Bob Leger (905) 668-5111 H
(416) 973-8534 B

ERIN SOARING SOCIETY
www.erinsoaring.com

GATINEAU GLIDING CLUB
Andrew Robinson (613) 226-7616
www.gatineauglidingclub.ca

GREAT LAKES GLIDING
Richard (416) 385-9293 (H)
Longhurst (416) 540-3132 (cell)
www.greatlakesgliding.com

GUELPH GLIDING & SOARING ASSN
Paul Nelson (519) 821-0153 (H)
www.thinkage.on.ca/~GG&SA/

LONDON SOARING SOCIETY
Sue & Chris Eaves (519) 268-8973
www.lonet.ca/res/mkeast/soar.htm

RIDEAU VALLEY SOARING
club phone (613) 489-2691
www.cyberus.ca/~rvss/

SOSA GLIDING CLUB
Pat O'Donnell (519) 753-9136
www.sosaglidingclub.com

TORONTO SOARING CLUB
Alex Foster (905) 773-4147
www.home.istar.ca/~boblepp/

YORK SOARING ASSOCIATION
(519) 848-3621 airfield
(416) 250-6871 info
www.YorkSoaring.com

Prairie Zone

PRINCE ALBERT GLIDING & SOARING
Keith Andrews (306) 249-1859 H
www.soar.sk.ca/pagsc/

REGINA GLIDING & SOARING CLUB
Jim Thompson (306) 789-1535 H
(306) 791-2534 W
www.soar.regina.sk.ca

SASKATOON SOARING CLUB
Brian Galka (306) 652-7966 H
(306) 956-7200 B
www.ssc.soar.sk.ca

WINNIPEG GLIDING CLUB
Susan & Mike Maskell (204) 831-8746
www.wgc.mb.ca

SWAN VALLEY SOARING ASSOCIATION
Brian Tigg (204) 734-5771

Alberta Zone

ALBERTA SOARING COUNCIL
Tony Burton (403) 625-4563
www.soaring.ab.ca

CENTRAL ALBERTA SOARING CLUB
Brian Davies (403) 318-4577 H
ve6ckc@ccinet.ab.ca

COLD LAKE SOARING CLUB
Box 5108, Stn Forces
Cold Lake, AB T9M 2C3
(780) 594-SOAR
www.jetnet.ab.ca/clsc

CU NIM GLIDING CLUB
Al Hoar (403) 288-7205 H
(403) 569-4311 B
www.soaring.ab.ca/free-flt/cunim

EDMONTON GLIDING CENTRE
(Air Cadets) Jason Acker
1203 - 11307 99 Avenue
Edmonton, AB T5K 0H2

EDMONTON SOARING CLUB
John Broomhall (780) 438-3268
www.freenet.edmonton.ab.ca/soar/

GRANDE PRAIRIE SOARING SOCIETY
Walter Mueller (780) 539-6991
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shown that it is in fact those experienced pilots who are having accidents. It is not until we are comfortable enough that we relax ourselves into an accident. I took a look at the previous *free flight* 5/2000, and of the seven glider accidents listed, only one was NOT an experienced pilot. I do fully agree with Henry that safety is an exercise in risk management; however, relabelling the issue does not fix the problem. He talks about only dealing with "manageable" risks, I think all risks can be dealt with, we should be talking about prioritizing and mustering the effort necessary. No, analyzing accidents cannot undo them, but it can raise awareness that can prevent the same thing from happening again. How many times have you stopped someone from doing something stupid because you had seen the result before? We do not purposely have accidents, it is usually because we are unaware. We need to raise awareness. Henry was dead on when he said "The biggest difficulty ... is for members to believe change is worthwhile..."; without that belief, there will be no change.

Let there be no misunderstanding, we have to improve our safety record nationwide. I would like to commend Henry for writing that article and the work he has done to help improve safety, but I was concerned that if I walked away with the wrong message, who else did? The moment you say, 'I am safe and do not need to worry about it', is the moment you become unsafe. Fly safely; if you are not part of the solution, you are part of the problem.

David Donaldson,
Great Lakes Soaring

Henry responds:

Thanks to David for his commentary. Rather than respond point by point it may be easier to explain how the article came to be written. As preface I must say that I believe our attitudes to these matters are determined as

much by what we feel about things as by what we think about them — cultures are extraordinarily powerful.

I am in no way opposed to the safety initiatives of the SAC towards improving our safety performance. I accept that our standing in the world is poor. But the fact is that the exercise is worthwhile in its own right without that background because the hazards are always waiting for us and a major part of flying training from the pre-flight inspection onwards is learning how to manage risk.

We did our best in the club to work through the SAC Safety Audit questionnaire in the spirit of the thing. Some of our members voiced opposition, holding that our safety record was fine. Others saw hazard around every corner and adopted a censorial attitude. Some took part in the discussions but in the end were passive. Finally, some picked up on the intent of the exercise and did what they could. It seems as though each of the cultures defined by Ian Oldaker could be found within the one group. I understand that our SAC initiative has been met with a similar variety of responses; certainly not with over-whelming enthusiasm. I understand that our SAC initiative has been met with a similar variety of responses.

Why should this be? I began to wonder if there is something about the word "safety" that implies regulation, an inhibition of our freedoms. I have sympathy with that perception. It seems sometimes that we are becoming a society where everyone must be wrapped in cotton wool for fear they might harm themselves, where the fine taste of fear as we pluck the flower from the edge of the precipice is too heady for our societal tastes. If it were not for that hint of danger to keep us on edge and give zest to our sport it would soon become boring. Could it be that the very words we use might block communication and defeat our purpose.

Hence the exercise in defining the issue in different ways. Instead of whipping people to fly more, perhaps we could find ways to make it easier to fly. Instead of labelling issues as unsafe perhaps we should define them in terms of comparative risk, and so on. Let's change the title of what we are trying to do — Risk Management.

But then David's comment that relabelling the issue does not fix the problem is absolutely right as I realized after submitting the article. If using the term risk management is no more than an attempt to disguise a difficult debate, it serves no purpose.

My friends and I talked this through for a while, trying to perceive whether risk management could be seen as different from safety programs. If not, I would apologize for the article and stand aside. Though the thoughts are yet half-formed I think there is a difference, best summed up in the crude feeling that safety programs are things that others do to us, whereas risk management is something we do for ourselves.

From the first flying lesson onwards we need to recognize that flying carries risks to ourselves and others, that risks can be graded in levels of seriousness and that most can be managed, and that as we learn more about the subject and share it with each other the adverse outcomes of those risks will decrease.

Our biggest difficulty is in creating a climate where pilots of different views can engage in useful discussion, where each others prejudices can be identified without rancour. How else can we include those whose risk management seems unacceptable or whose insights are different? It's a rocky road.

Finally, I do want to make it clear that I am no expert and that I cannot claim to speak on behalf of my club. ❖

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surrounding terrain looking for possible landing places.

Now for the safety tips that inexperienced and experienced pilots should know:

- Know where airports or safe landing places are. Know where you are and maintain situational awareness.
- Go only when you know that you can make it to the next landing place. In case of doubt, don't go (but one can almost always go).
- When evaluating the safe altitude to begin a glide to an airport or possible field landing, plan to arrive at 1000 feet above its elevation.

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- When evaluating a safe altitude to begin a glide, the further one is from the landing place, the more reliable the calculation is, because areas of sink and lift tend to equalize over long distances. The reverse is true for short distances; many pilots have landed short from close by.

When everything has gone wrong and you are in trouble:

- Select a field that is large, smooth, up-slope, and aligned into wind — in that order.
- Look hard for obstacles (wires are the least visible). Use your brain as well as your eyes. If you find wires in your path, aim to pass underneath them.
- Never be afraid. Caution and fear are fine, but panic is a killer. Fly the ship to the last second as if you were landing on a good field. The great majority of the accidents occur on local, not cross-country flights.
- Maintain your flying speed. It is better to fly into a row of trees at 50 knots than stall in front of them at 35 knots. Forget the ship at this point, think about yourself. When an aircraft stalls, it will go nose-first into the ground — and in the nose is the pilot.

Do not feel frightened by thoughts of damage to the point of avoiding going cross-country. It happens so rarely, and it depends on you. Yes, local flying may be less dangerous. Even less dangerous would be not to fly and go to the beach. Better yet, stay home. Even better, stay in bed. But when will you live? Live now, in the lift, and your spirit will be lifted forever.

The author lives in Sacramento, CA and does a lot of his cross-country soaring over the US southwest desert. ❖

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the complete history of soaring achievement in Canada is freely available on the SAC documents web page.

wouldn't be that difficult to rewire some of the sensors on the car to activate certain functions when you get a combination of no rain, temperature above freezing, and IGS (indicated ground speed) less than 15 km/h. I would program it to make the wipers stop, the top automatically lower, the heat come on as required, and the CD player seek out an Eagles disk — they have far better "Driving Fast" songs than Willie does. Believe me, you do drive a lot faster with the top down.

Later that night, I made a trip out to the car to get something from the trunk, er, boot, and decided to use the remote keyless entry, another excellent feature which helps you prevent scratching the car door with the key in the dark. Useful for those late retrieves. Clearly though, the owner hadn't given me enough dual, and I didn't realize that I was arming the alarm system. Shades of Atlanta again. I truly learned the full meaning of the phrase, 'All The Bells And Whistles'. Good thing the trailer was disconnected or the strain of constant flashing lights would have burned out the sensitive wiring. "Platypus", writing in that English magazine, refers to the action at Seminole as "Geezer Glyde." These guys retire early, in both senses of the phrase. They were so incensed at the noise and resultant sleep disturbance that I am now also banned from the environs of Orlando, as well as Niagara.

Finally, I had just seen the movie, "American Graffiti", and needed to visit an A&W for old time's sake on my way out of town. The waitress skates over and, naturally, is impressed with my car. Evidently they don't get a lot of people in convertibles wearing tuques in Orlando in the winter. She begins asking about all the buttons and features, and I caution her not to spill any root beer on the windshield unless she is standing clear of the wipers. As luck would have it, I had taken in a little golf, and there were a couple of tees on the console beside me. She asked what they were for, and I replied, "You rest your balls on those while you're driving." She said, "Golly, those Jaguar people sure do think of everything!"

Well, I think I have finally done my "Author Selected Task", as conceived and promised to you last spring in *free flight*. Near as I can figure, this piece is appropriate to the magazine, yet I never once used the G-word or the S-word. You gotta have a goal, and that was mine.

A friend at SOSA who raised goal-setting to new heights was Karl Raufeisen. He enjoyed leaving the ground in his heavier-than-air device, climbing higher than release height for long periods, and attempting to travel prescribed long distances more than anyone I know. He passed on while I was away, and I regret not being able to attend his memorial service. So long, Karl, we'll miss you. ❖

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TC Approved Maintenance Organization 24-88

CURRENT CANADIAN RECORDS (as of 1 Jan 2001)

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	FEMININE	MULTI - OPEN
DISTANCE (km)				
3.1.4a Free distance	Marsden / Apps Walter Weir		Ursula Wiese not claimed	C Zwarych (R Adam) Charles Yeates (K Yeates)
3.1.4b Free out & return	Trevor Florence	770.4	607.0	495.0
3.1.4c Free 3 TP dist.	Brian Milner Marsden / Apps	2000	508.7	259.9 C 521.3 T
3.1.4d Straight dist. to goal				
3.1.4e Out & return dist.	Tony Burton		305.0 C	310.0 T
3.1.4f Triangle distance	Brian Milner Hal Werneburg Peter Masak		328.0	304.0 C 421.5
			317.6	1984 1988
				1975 1984 1988
SPEED, Δ (km/h)				
3.1.4h 100 km	Kevin Bennett Peter Masak		A Williams	Dave Marsden (M Jones)
SAC 200 km	John Firth Charles Yeates		Marion Barritt	Lloyd Bungey (T Burton)
3.1.4h 300 km	Kevin Bennett Peter Masak		Ursula Wiese	Charles Yeates (K Yeates)
SAC 400 km	John Firth Charles Yeates		not claimed	Dave Marsden (E Dumas)
3.1.4h 500 km	Walter Weir Peter Masak		not claimed	Ian Spence (J-R Fallu)
3.1.4h 750 km	Willi Krug		not claimed	not claimed
3.1.4h 1000 km	Peter Masak		not claimed	John Firth (D Webber)
			not claimed	not claimed
			not claimed	not claimed
ALTITUDE (m)				
3.1.4i Absolute Altitude	Bruce Hea Walter Chmela		Deirdre Duffy A Czervenska	Bob Shirley (P Campbell) Walter Chmela (VanMaurik)
3.1.4j Gain of Altitude	Dave Mercer		Deirdre Duffy	Bob Shirley (P Campbell)
SPEED, O&R (km/h)				
SAC 300 km	Hal Werneburg Walter Weir		Ursula Wiese Tracie Wark	W Chmela (Rominger)
3.1.4g 500 km	Kevin Bennett Walter Weir		59.6 T *131.0 C	65.0 C
SAC 750 km	Walter Weir		not claimed	not claimed
3.1.4g 1000 km	Walter Weir Brian Milner		not claimed	not claimed
			not claimed	not claimed
SPEED, GOAL (km/h)				
SAC 100 km	Kevin Bennett Walter Weir	Tony Burton	not claimed	T Florence (N Marsh)
SAC 200 km	Kevin Bennett Walter Weir	93.3	not claimed	*105.6
SAC 300 km	Walter Weir Wolf Mix	1999	not claimed	not claimed
SAC 400 km	Walter Weir Tony Burton		not claimed	70.2 C
SAC 500 km	Dave Marsden Walter Weir		not claimed	not claimed
			not claimed	not claimed

Note: Some record claims flown in 2000 (shown by an *) have not been approved yet.

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P14 *The Hot Air Blimp* 60 min
Take the thermal with you – yet keep control.

C11 *Soaring at GGC in the early 70s.*
Soaring before fibreglass (from 8mm).

C12 *AVV Champlain (French)* 5 min
Intro flight over Eastern Townships.

Professional videos

P1 *Running on Empty (USA)* 22 min
Top pilots compete in Arizona. Narrated by Cliff Robertson.

P2 *Free flight (UK)* 51 min
Soaring in the UK, its history, and how gliders are made.

P3 *Pure flight (UK)* 30 min
Cliff Robertson tells power pilots about soaring in Vermont and Colorado.

P4 *Soaring (USA)* 20 min
A history of soaring and the 1988 Region 8 competition.

P5 *Soaring in harmony with the wind (USA)* 14 min
Excellent ridge soaring from Stowe, VT.

P6 *Delta Fox (France)* 24 min
A flight over the French Alps (to music).

P7 *Riding the Mountain Wave* 27 min
The 1982 Cowley wave camp (produced by CBC Edmonton).

P8a *Wind Born* 55 min
A young lady learns to fly gliders and then goes on a spectacular trip across the Southern Alps.

P8b *Champions of the Wave* 52 min
World championship in New Zealand. Good time lapse footage of wave.

P9 *Soaring in France*
Collection of 20 professional and amateur soaring films from 4 to 35 minutes.

P10 *25ème Championnat* 37 min
1997 World championships in France.

P11 *Segelflugschule Wasserkuppe 1992*
Soaring school where ASKs are made.

P12 *Bayreuth 1999*
The World championships in Germany.

Canadian Club videos

C1 *SAC 50th anniversary (eng & fr)* 15 min
Soaring from Hope to Halifax.

C2 *GGC and Pendleton's 50th anniversary*
Tiger Moth gathering, giving rides and tows. Displays, aerobatics and speeches.

C3 *Base Borden Soaring Group*
Winch soaring at its best.

C4 *Chasing Phantoms, Hope BC* 8 min
A professionally done filmed slide presentation with musical background, and some breathtaking aerobatics.

C5 *Winnipeg Gliding Club* 29 min
TV documentaries and some interesting amateur shots at the field.

C6 *1982 Nationals at SOSA* 27 min
High quality documentary by Molson's.

C7 *Bluenose Gliding Club* 90 min
a. The Harris Hill Soaring Museum
b. The quiet challenge
c. A motorglider visit from Florida
d. Sailors of the sky

C8 *1989 Flying Week at Bluenose*
A documentary of activities at Stanley, NS, and a visit to St. Raymond, PQ.

C9a *Interview with Tony & Ursula* 32 min
TV interview answering many layman's questions about soaring in general and is very useful in introducing the public to soaring.

C9b *Building the AV-36* 37 min
The flying wing gliders built by the "Tenardee" club members in Calgary in the early 50s. Flying activities in southern Alberta that led to the discovery of the wave at Cowley. Transcribed from 8mm film by builder Bill Riddell who does a "voice-over".

C10 *SOSA in the 60s*
When club in Brantford (from 8mm).

Educational videos

E1 *To be a Pilot (TC)* 21 min
Overconfident student prangs the club's Cessna 150 in a crosswind landing but is given a second chance.

E2 *The Wrong Stuff (TC)* 51 min
A warning to complacent pilots.

E3 *Ian Oldaker et al (SAC)*
Eight interesting 1 hour lectures.
a. *Dangers on tow* – Ian Oldaker
b. *Airspace use* – Kathy Fletcher (TC)
c. *Stall prevention on final*
d. *Joining gliders in a thermal* – Ian
e. *Stress overload* – Ian
f. *Dehydration* – Dr. Hanson (TC)
g. *Post-solo training*
i. *The important first flying lesson* – Ian

E4 *Collision Avoidance in gliders (SAC)*
How to enter a gaggle safely.

E5 *Why Airplanes Crash (NOVA)*

E6 *Better Communication for Better Safety (TC)* 26 min

E7 *Safety by Stress Management (TC)* 40 min

E8 *Accidents and Pilot Planning (SAC)* 24 min

E9 *When in Doubt (TC)*
About ice on the wings.

E10 *Bon Voyage. But ... (External Affairs)*
Travel tips for Canadians abroad.

E11 *Speed to Fly*
Karl Striedieck from a cross-country video series.

E12 *CAS Symposium* ~60 min ea
Eight lectures in Hawkesbury in 1999.

E13 *Soaring – Your Sport for the new Millennium* 15 min
A great soaring promotional video for clubs to use.

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7 Eagle/gull ball point pen (bulk –12 for \$10)	1.00				✓	Stylo – aigle/mouette motif (12 pour \$10)
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9 SAC flag – dark blue with gold logo, 3' x 5'	85.00				✓	Drapeau de l'ACVV, blue foncé, logo doré (3 pieds sur 5)
Books from international authors						Livres des auteurs internationaux
✿ 20 <i>SOARING CROSS-COUNTRY</i> – ed. 2 Helmut Reichmann	47.00					<i>SOARING CROSS-COUNTRY</i> – ed. 2 Helmut Reichmann
21 <i>SOARING WITH THE SCHWEIZERS</i> Bill Schweizer	30.00					<i>SOARING WITH THE SCHWEIZERS</i> Bill Schweizer
22 <i>SOARING ACCIDENTS THAT ALMOST HAPPENED</i> • Steve Dupont	12.00					<i>SOARING ACCIDENTS THAT ALMOST HAPPENED</i> • Steve Dupont
23 <i>SOARING METEOROLOGY FOR FORECASTERS</i> • SSA	16.00					<i>SOARING METEOROLOGY FOR FORECASTERS</i> • SSA
✿ 24 <i>FROM THE GROUND UP</i> , ed 27 • Isabel Pepler expanded & revised	34.00					<i>FROM THE GROUND UP</i> , ed 27 • Isabel Pepler
SAC crests, pins, cards						Ecussons et epingles de l'ACVV
40 Crest "SAC•ACVV", embroidered	3.50				✓	Ecusson "SAC•ACVV", brodé
41 "SAC" lapel pin • enamel	3.50				✓	Epingle "SAC" • émail
42 "SAC" lapel pin • pewter	6.00				✓	Epingle "SAC" • étain
43 Lapel pin • Glider (white)	10.00				✓	Epingle • Planeur blanc
44 Postcards (set of 5 sailplane photographs)	1.25				✓	Cinq cartes postales (photos des planeurs)
45 Postcards (set of 25 sailplane photographs)	5.00				✓	Vingt cinq cartes postales (photos des planeurs)

	Price Prix	Size Taille	Qty Qté	Amount Total	T a x	
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70 FAI 'A' badge, silver plate pin	6.00				✓	Insigne FAI 'A', plaqué argent
71 FAI 'B' badge, silver plate pin	3.00				✓	Insigne FAI 'B', plaqué argent
72 SAC Bronze badge, pin (available from your club)	3.00				✓	Insigne ACVV bronze (disponible au club)
73 FAI 'C' badge, cloth, 3" dia.	6.00				✓	Insigne FAI 'C', écusson de tissu, 3" dia.
74 FAI Silver badge, cloth, 3" dia.	12.00				✓	Insigne FAI argent, écusson de tissu, 3" dia.
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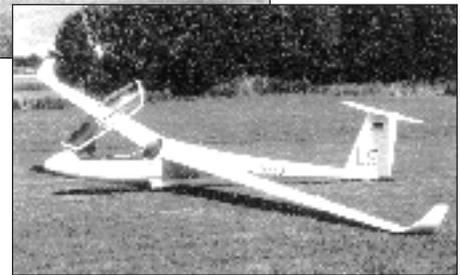
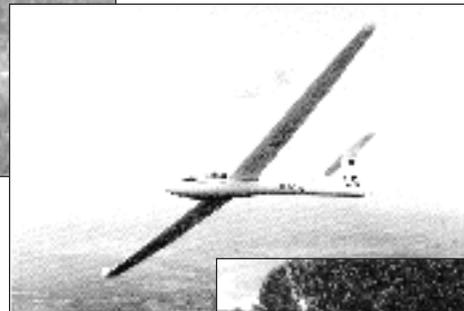


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