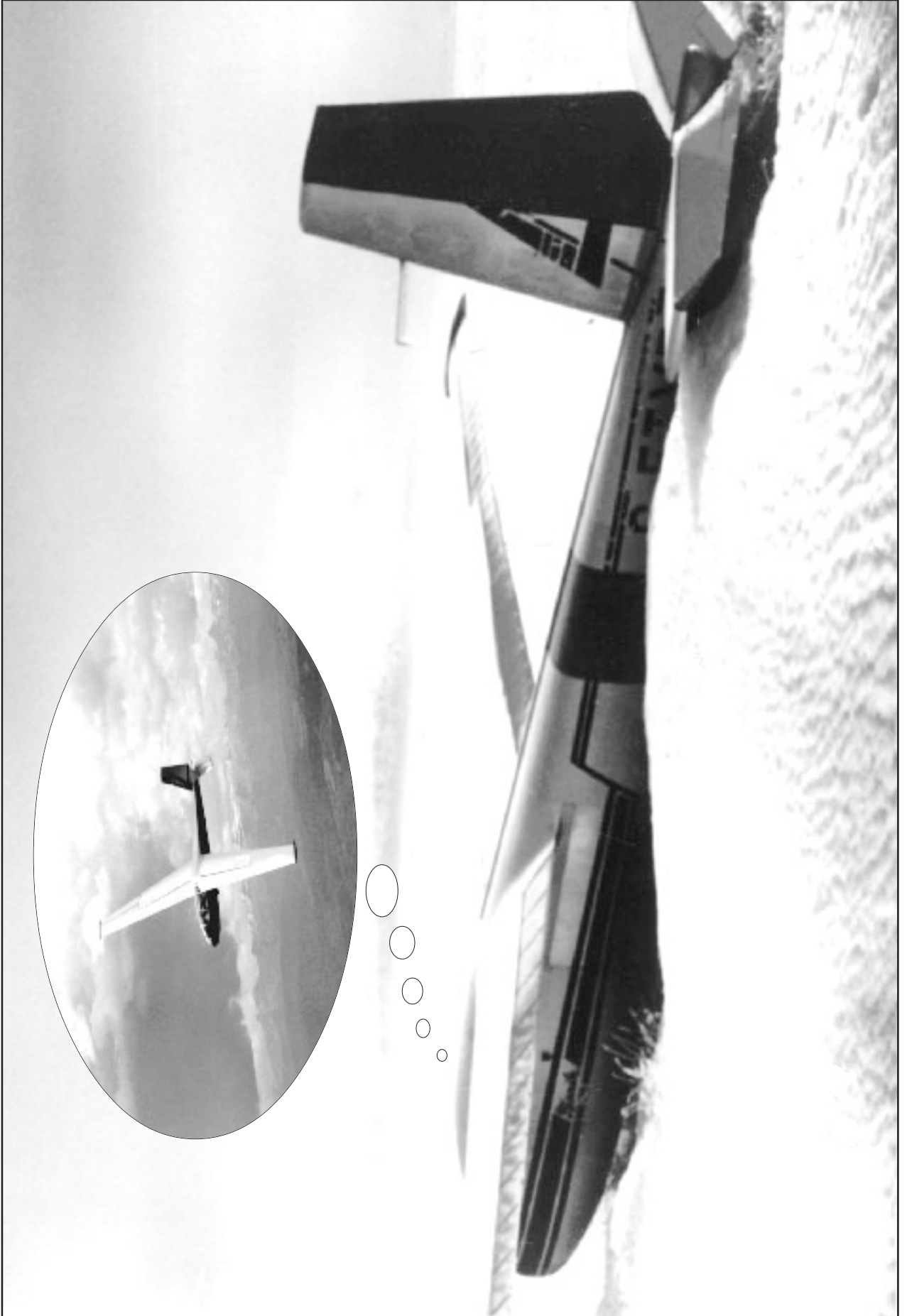




free flight • vol libre

1/97
Feb/Mar



Liaison



I have just had the pleasure of working with our executive director, Jim McCollum, for the last two days. It is a godsend that we have someone of Jim's stature and dedication looking after our interests in these turbulent times. The next time you are in Ottawa during the week, do drop in and see for yourself what a professional office we have there working for us.

By the time you receive this, the Airspace committee will have met to establish the course of action that we will take in both the short term and the long term on this issue. The committee will first establish our goals from the national perspective and also will be available to consult and share expertise with the local clubs when necessary.

We are fortunate to have been able to assemble a powerful team:

- Bill Green (VSA) is the chairperson. A retired captain with Canadian Airlines, he brings to us more than thirty years of airline experience.
- Ian Grant (Gatineau) is an active glider pilot and a former board member of SOSA. A professional engineer, he currently works for the Canadian regulation board for atomic energy.
- Scott McMaster (SOSA) is a professor and researcher at McMaster University in Hamilton.

As usual, we are finding disparities on what clubs are able to negotiate with their local air traffic authorities. Our members' feelings also vary, depending on severity of the problem and the type of flying they do. While it is unwise to sell the hide before you shoot the animal, I am feeling very positive that we will be able to retain the airspace we need to practise our sport. Make no mistake however; airspace is an issue that will be with us forever. Our committee, once we settle the current problems with some locations, will have to serve as a watchdog for us and develop the relationship we need with Transport Canada and NavCan to ensure that our interests are well represented and by people whose interest is dedicated to soaring.

The next twenty years could very well be the golden age of soaring. The baby boomers, those born between 1947 and 1961, are starting to turn 50. As their children leave home, they have more of what it takes to take on soaring — time and disposable income. Many of them always had that dream: to fly. They never had the time or the money. Now they do. Let's help them fulfill their dream.

• • • •

Dans dix semaines, nous serons au début d'une nouvelle saison. Malgré qu'il fasse moins 25°C ce soir, il est temps de penser au recrutement. La météo humide et désastreuse du printemps dernier nous a floué de plusieurs recrues. Dans le passé, bien des clubs ont laissé la bonne fortune amener les nouveaux membres. Ou bien, ils allaient à la pêche en exposant un planeur dans une galerie commerciale par exemple. Je suggère que ces méthodes sont très aléatoires et souvent drainent beaucoup d'énergies sans apporter les résultats escomptés. J'ose espérer que le petit topo démographique de l'avant dernier paragraphe vous donnera matière à réflexion.

Bonne saison, bons vols.

Pierre Pepin president

free flight • vol libre

1/97 Feb/Mar

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

ISSN 0827 - 2557

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Cover

Spring will come, honest! You just have to have faith – given what you see out the window today (Vancouver excepted). The Blanik in the snow is at ESC, the spring inset is over Cu Nim. Large photo - Hugh McColeman, inset photo - unknown.

New!

An easy SAC home page address

<http://www.sac.ca.html>

This should be working now, if you have a problem, the old address is still good.

"All things come to he who waits."

Tony Burton

What a winter — global warming is *really* beginning to get me down!

This issue is a little twenty pager, usual for the first issue of the year when the last thing we are thinking about is soaring. I took a couple of weeks off after Christmas the morning it got to -35C with the promise of -40 (C and F) the next day. Ursula and I piled into the car and headed for the desert southwest to thaw out a bit. At the time, my *free flight* story basket was bare, but when I got back, one week after deadline — lo and behold! — a stranger saved the day for me with an email suggesting that perhaps I might want to consider printing a soaring adventure he had last summer in Finland. You will see that the story was not only timely, but a fine one too, and photos and maps came wafting around the world with a few keystroke clicks. I'm hooked on cyberspace.

As I said in my previous editorial, sometimes stories appear out of the blue just in time, but it still isn't the type of inventory management an editor likes to use. Another reflective little piece came from *Sailplane & Gliding* by an author who really shouldn't have used a pseudonym, because he won't get all the praise he deserves for the fine way he describes the importance any cross-country flight is to the psyche of a committed soaring pilot.

Fred Kisil in Winnipeg has been busy feeding me good instructional and safety pieces which you will be seeing regularly, and Hugh McColeman in Edmonton performs a detailed autopsy on a spoiler-open launch incident which is required reading.

Many thanks to everyone who contributes towards making *free flight* what it is. Keep it up, or start now if you've been delinquent.

Pierre has an excellent point on where to look for members. It's like quoting the Bible to say that long term growth in the sport depends on attracting young people — that is the long term effort. But if you want new members for your club a couple of months from now, you should be going after people who already have a predisposition to aviation *and* who also have the time and money to pursue it. That means, for example, pilots who can no longer afford power flying, and the fifty year old who always wanted to try gliding and now has the available time and the disposable income to give it a shot. Has your club been putting notices in places and publications that 'boomers' are likely to be and see? You've got to know where your market is and let that market know you exist.

To everyone who is looking out the window now and wondering if you will ever see green again, remember: "All things come to he who waits."



The SOARING ASSOCIATION of CANADA

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

free flight is the official journal of SAC.

Material published in *free flight* is contributed by individuals or clubs for the enjoyment of Canadian soaring enthusiasts. The accuracy of the material is the responsibility of the contributor. No payment is offered for submitted material. All individuals and clubs are invited to contribute articles, reports, club activities, and photos of soaring interest. A 3.5" disk copy of text in any common word processing format is welcome (Macintosh preferred, DOS is ok in ASCII text). All material is subject to editing to the space requirements and the quality standards of the magazine.

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

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

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

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L'ASSOCIATION CANADIENNE DE VOL A VOILE

est une organisation à but non lucratif formée de personnes enthousiastes cherchant à développer et à promouvoir le vol à voile sous toutes ses formes sur une base nationale et internationale. L'association est membre de l'Aéro Club du Canada (ACC) représentant le Canada au sein de la Fédération Aéronautique Internationale (FAI), administration formée des aéro clubs nationaux responsables des sports aériens à l'échelle mondiale. Selon les normes de la FAI, l'ACC a délégué à l'Association Canadienne de Vol à Voile la supervision des activités de vol à voile telles que tentatives de records, sanctions des compétitions, délivrance des brevets de la FAI etc. ainsi que la sélection d'une équipe nationale pour les championnats mondiaux biennaux de vol à voile.

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Les épreuves de photo en noir et blanc ou couleur sont requises; pas de diapositives ni de négatifs s'il vous plaît.

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Les articles de *vol libre* peuvent être reproduits librement, mais la mention du nom de la revue et de l'auteur serait grandement appréciée.

Pour changements d'adresse et abonnements aux non membres de l'ACVV (\$20 par an, EU\$22 dans les Etats Unis, et EU\$26 outre-mer) veuillez contacter le bureau national à l'adresse qui apparaît au bas de la page à gauche.

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Letters & Opinions

FEEDBACK ON FREE FLIGHT

...By the way, in response to your editorial [in 6/96], I want to say that I strongly support the existence of *free flight* in its current form. In my opinion it publishes interesting and informative news and articles and is produced to a high technical and editorial standard.

The soaring community seems continually to define itself as a collection of narrow interest groups. *free flight* plays an essential role in maintaining the identity of the Soaring Association of Canada. An association that loses its ability to communicate with its members will not long survive.

I pay SSA a US\$43 yearly subscription to receive Soaring magazine. *free flight* stacks up well against Soaring. Soaring has a better classified section of course, and more news, but the articles are usually no better than *free flight's* and lack local interest.

So I think *free flight* represents value for money. If costs must be cut, I could support trimming production standards and as a last resort reducing to quarterly issues. Don't kill it!

Ian Grant, GGC

• • • •

I was duly alarmed at the content of 6/96. My personal choice for the solution of our financial shortfall is to *increase our membership* There are plenty of people out there — all we have to do is reduce the deterrents; make fee payment by easy monthly contributions, reduce the power-trip content of our daily operation (if there is some there), and have the field up and running on *every* soaring day. If it should take too long to do this, then my last choice would be to reduce *free flight*. It is the glue which keeps us together. I would advocate an increase in fees and a withdrawal from the Aero Club / FAI. My absolute priorities are instructor training, sailplane insurance, and *free flight*.

Also, it looks like we need to put extra effort into airspace. We seem to have a workable arrangement at Stanley, and in this we are lucky. We have actively fostered a good relationship with the controllers at Halifax (now resident in Moncton). We recognized some time ago that the sky is safer for everyone if pilots look out of the window below 10,000 feet. Our message on ATIS gets attention from the big gear. We have been asked to continue our daily call-in under the new regime and so far the radio traffic generated by gliders is tiny; however, the workload overall has increased a great deal in Nova Scotia since the Halifax zone encompasses just about every air-

craft in the province. Other clubs are not so fortunate, I gather.

The Class F option [Alert Areas] would seem to be the most sensible, so as to contain the local training and soaring while giving time for cross-country pilots to obtain access to OUR sky.

Thanks for all the good work that keeps the Association going.

Dick Vine, Bluenose

• • • •

Tony, I just got the newest *free flight* in the mail and feel I must put two cents' worth in support of the magazine ("*Does free flight need to change?*" — editorial", 6/96)

Several years ago, I did a stint as a SAC "publicity chairman". (Please don't edit out the quotes, they're there for ironic purposes.) Although there were lots of helpful people, as far as some VIPs were concerned the whole notion of publicity for SAC seemed fine as long as it was on the same level as a church bake sale. I got to thinking maybe we were our own worst enemy.

Even then, the Great Airspace Grab was starting to leave its infancy behind. Now that it's a truly obnoxious teenager, should we shoot down *free flight*? No way. We need the magazine more than ever. We also need more glider pilots — and more friends on the outside.

By the way, I'm sure I'm not the only one who reads the magazine cover to cover, issue to issue. Please keep up the good work. If keeping *free flight* in my mailbox is going to cost a little more, that's okay with me. Cheers...fly lots...

Terry McElligott, SOSA

• • • •

The last thing we should do is to cut back on the six issues of *free flight* or shrink the number of pages in each issue. The magazine is a powerful glue and much needed sounding board (if you'll forgive the mixed metaphor) for a geographically strung out sport.

Beyond that, I hope that members across the country are willing to pay for a substantial increase in national membership dues. For the sake of argument, let's assume that a \$50 increase is needed. Taking into consideration glider cost and insurance or rental as well as the tow or launch and indirect costs, the total amounts to less than three flights, a tiny percentage of an active member's direct and indirect costs for a season. Members longer in the tooth who still recall the Pogo comic strip with fondness ⇨ p16

Finnish fool's gold

An expatriate from Erin Soaring tackles his first 300 in a far north land.

Robert Hellier

NESTLED between Sweden, Russia and the Baltic, astride the Arctic Circle in a remote corner of Europe, Finland has surprisingly good thermal activity from May to September. But this is no news to Europeans; the world's first 1000 kilometre triangle was flown in Finland in 1975 by Germany's Hans-Werner Grosse. And many others have been flown since then, mostly by European pilots.

A more recent reminder of Finland's soaring conditions was the European Gliding Championships, held last May-June at Finland's national gliding center, Räyskälä. Despite lousy weather throughout Europe, the EGC had only three days of unsuitable conditions over two weeks, with Standard class tasks averaging 293 kilometres.

This is all due to a good mix of continental weather patterns, long summer days and gently undulating countryside. Together they generate large areas of thermal activity which are active to 5000 to 8000 feet and up to ten hours. It is also one of the few European countries with a relatively open airspace and authorities that are understanding (but not always!) of the special requirements of powerless flight.

In this context it would seem not too difficult to manage a Gold distance flight, even for a relatively inexperienced (150 hour) pilot like myself. Though I had been flying on and off for twenty years, it was only after I had settled in Finland from Canada in 1988 that I began to seriously consider breaking the "rubber band" that had always kept me close to home field. In '95 I managed my Silver badge flights, with a 110 kilometre cross-country and 6:41 endurance, bringing me to my current challenge.

The early summer of '96 did not cooperate, however, with only a few days of good conditions at my field, "Kymi", located near the port city of Kotka. Nonetheless I had a flexible enough work schedule during the spring/summer to take advantage of whatever came along, allowing me to move up from the ASK23 that I'd flown previously to the club's Astir G102 and LS-4A. Concentrating on familiarizing myself with their thermaling and landing characteristics, I managed several flights of 3 to 7 hours and cross-country tasks of up to 150 kilometres, all of which contributed to my assurance that gold was within my reach.

Summer at last A drastic improvement in weather occurred in mid July, with a series of slow moving high pressures replacing the chill winds, rain and overcast of earlier weeks. Due to the summer's poor start, the competition for club planes was now fierce, with pilots showing up at 0700, a sight not seen at Kymi since the 70's! Since I live in Helsinki — some 200 kilometres from the club — I would need to stay overnight at the airfield to be sure to reserve the LS-4 for the task (the club runs on a first come first serve basis). So, with permission from "home control" I packed my gear, bussed and cycled to Kymi and checked into the ex-fighter field's WWII vintage sleeping quarters.

The first day (July 21) was unsuitable for longer flights. High winds from the passing of a cold front prevented the production of anything other than week, broken thermals. In addition, several pilots arrived at the field while I was finishing my breakfast, leaving me the Astir instead of the higher performance LS-4.

The time on the ground allowed me to discuss possible tasks. Marika, one of the club's few female pilots, suggested a triangular course that she was hoping to attempt which she had calculated to be 302 kilometres: a 58 kilometre leg to Lummäen church, 136 kilometres to another prominent church near the town of Koski, and a 108 kilometre return to Kymi.

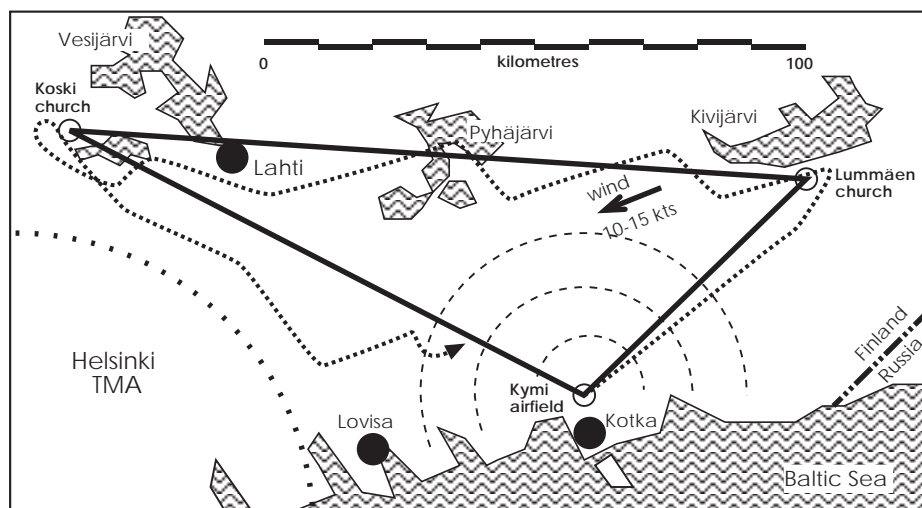
Between these morning discussions I went aloft twice to work with the Astir. Though not ideal cross-country weather, it was

perfect for improving low level thermaling and crosswind landing skills. On my third launch, at 1340, I caught one of the first solid thermals of the day. Reaching a maximum height of 5400 feet, I tried to make the most of the conditions which — due to a stiffening sea breeze — quickly deteriorated. In the end I shared the sky with the sole remaining cumulus cloud and the club's Discus (it on top and I underneath). Both of us stayed with the disintegrating cloud, struggling in zero lift until it began to drift beyond gliding distance to the field. In the end I managed the day's second longest flight of 4:14 hours, which I considered a good omen for the next.

The Day of Reckoning Indeed, day two started off better. First of all I learned my lesson about lazing about in bed and was at the hangar at 0700, followed within seconds by another club member, Jyrki Laukkanen, a Finnish Air Force (retired) test pilot. We pulled out the LS-4 for me, Discus for him (he was attempting a 500 out and return), did our daily checks and speculated on the weather while we loaded our cameras, barographs, batteries, maps, food and liquids into the cockpits. It looked promising. Winds were moderate and no sign of high cloud. The freshness in the air promised unstable conditions.

By 0930 the first cumulus were already popping over the field, the winch and its two cables were lined up and the club gliders (ten in all) were at the starting line. With permission from Pentti Lehtinen, the club's senior instructor, I had selected Marika's triangle and decided to take the first leg into the northeast wind.

Strapped into the LS-4, wings level, with the Discus, Janus and Puchacz already working thermals in the forming cloud streets, I was impatient to feel the pull of the winch cable. As it slowly drew tight I made a final visual check and noted a cu directly overhead just as the radio man (who communicates with the winch operator via a buried phone line) gave the "all out" command. Twenty seconds later I released from the tow cable at 1400 feet and could immediately feel the pull of a thermal. In another



few minutes I had approached cloudbase at 4100 feet and headed upwind along a dense cloud street.

In the first leg I never left that cloud street or dropped below 3200 feet. The area over which I was flying contained few suitable fields and I wanted to be sure of the conditions before taking any chances. As I approached TP1 one — located on the edge of Kivijärvi, a lake of the Saimaa Lake district — the cloud streets dissipated into a ten kilometre blue hole followed by a few straggly cu. I wondered whether these would be any use to regain height after my turn but, halfway into the hole, I unexpectedly encountered strong sink — followed by a definite kick in the seat! Easing back on the stick and turning into the rising wing, I was surprised to find a strong, turbulent thermal. Looking up, there was no sign of forming cu and after a few minutes I was happy to discover that this clear air turbulence was taking me to the top of the surrounding cloud at 5400 feet. Completing the turn-point was no longer a problem except to get a clear shot through the scattered cloud below me.

The second leg was the longest in distance but, being downwind, was the shortest to accomplish, despite having to traverse cloud streets. Passing over the town of Lahti, however, I was exposed to another blue hole from the cool air rising off Vesijärvi lake. A new layer of cirrostratus didn't help either and the cumulus, whose bases were now between 5000 and 6000 feet, were starting to fall out in some areas.

Gaining speed in the last spiral of my thermal, I made a bee line to the turnpoint, covered by the shadow of a large, ill-formed cu. At 2600 feet and 4 knot sink I had not reached my turnpoint and began to get worried. The overhead cloud seemed to be producing only sink, so I informed the club of my height and position in case I was unable to resolve the situation. On hearing my message, Jyrki, who had given up on his 500 kilometre attempt due to deteriorating weather in the west, suggested I seek lift above the nearest sunny patch of land. Taking his advice, I moved to an edge of shadow and soon found an area of weak, indefinite lift.

With the fields and forest uncomfortably close at 1600 feet, I concentrated intensely to find some kind of centre. After a few minutes I was relieved to get a steady one knot, gradually strengthening to 3 knots all the way back up to 5600 feet. With a sigh of relief I positioned myself over the turn-point, snapped a few photos of the prominent white church and headed back into the blue hole, southeast towards Kymi.

Final Leg By now it was almost four o'clock and the conditions had definitely peaked. I was also facing a somewhat strengthening wind, with widely spaced large cu, some of which were beginning to perspire more than I was! After an hour and a half I'd managed to get to 5900 feet and

photo not available for pdf file

An LS-4 is a very inefficient scythe!

50 kilometres from the field. Following the more promising clouds, however, I had allowed myself to stray south of my intended route, placing myself into an area affected by the sea breeze from the Baltic. In either direction the conditions did not look good. The direct route to Kymi was all blue and flat. Disintegrating cu to the north didn't look promising either but I could hear from the radio chat that some lift still operated to my northeast, so I attempted to reach it.

The glide to this promised land was in sink and, with a headwind, too long. At 1600 feet and 25 kilometres from home I decided that an off-field landing would be the most likely climax to my first Gold distance attempt. There were lots of fields to choose from — or so it seemed — but as I approached each one there seemed to be a conspiracy of power lines preventing clear approaches. Being July, most fields also still contained their crops of barley, rye and wheat.

While searching for a field I was also trying to find that elusive lift. At a point when I had finally thought to have found a short but otherwise good landing site I also noticed a slight twig in the wings and slowly circled to find the core. The thermal was extremely weak, however, allowing me only to maintain my 1300 feet altitude for several minutes. Finally, with the headwind pushing me away from my chosen field into a forested area, I committed to land and set up for a circuit. After radioing my position I tightened my restraints 'til they hurt, lowered the gear and set the trim. Unable to penetrate into wind far enough for a proper downwind leg I entered a right hand circuit on the base leg.

It was then that I noticed yet another power line cutting diagonally across the near end of the recently cleared field! Having never done a field landing I couldn't believe they could be so hard to detect. But, with the sun at my back and the green-brown colour of the poles a perfect match for the barley, there were few visual cues to go by. It was only when I was approaching the field from an angle relative to the sun

that the shadows of the poles in the waving barley gave them away.

A tense decision At this point I perceived I had two choices — modify the approach to hop over the power line and stop the aircraft before the trees or choose an adjacent, longer, unobstructed field which, unfortunately, still had a crop in place. In that instant I chose the latter, hoping that the crop would not be too high and grab a wing as I landed.

Lining up for final I had to consciously control the fear that was a physical presence in my stomach. Though I had practised short field landings at airfields and had gone over off-field procedures hundreds of times, this was the real thing! Instead of thinking of what may happen, I had to focus on the job at hand, making the most of everything I'd heard, read or been taught.

Passing over the ditch delineating the field I began a slow flare to minimize my airspeed. I could see the waving barley in detail and knew now that it was high. The tail of the LS-4 made a swishing contact and, as my main wheel descended into the crop I had the momentary impression that it would be like stalling onto a big fluffy pillow. As my eyes reached the level of the swaying mass, however, reality intruded with a sharp jolt as my left wing dipped into a swell of barley and stopped.

What happened next was a loud wooshing noise, a hard tug against my restraints and a swirl of green and blue. In the stillness that followed it took me a moment to realize that I was now staring in the direction from which I had just approached!

The tightened restraints had done their work to prevent personal injury but what about the LS-4? Gathering courage, I looked beside and behind me to see if the wings and tail were still where they should be. They were! Releasing myself from the ship and my parachute I opened the canopy, stepped into the four foot high crop and onto soft, dark earth. Inspecting the 100 foot ⇨ p13

a field in Bedfordshire

“Wingman”

from *Sailplane & Gliding*

MY HANDS were sweating and my mind racing — I knew it was time to make the decision, I was already low enough so I lowered the wheel. The field lay alongside and I checked for wires and cables, obstructions on the approach, poles in the field itself, animals and access. All looked okay. The sun, burning from a cloudless sky, watched me turn on to a short base. I made my checks, set the flaps and speed, trimmed and looked out, rechecked the wheel and looked out again.

I waited, my hand gripping the brake lever, carefully judging the timing until the angles fell into place to turn finals. I monitored the speed, made a final check for wires ... still okay. Half brake looked good and with only seconds to go until touchdown, thoughts came unbidden...

Perhaps if I'd persisted with that last thermal — only half a knot but it was scrappy, only getting lift halfway round and losing out overall. The experience of the previous hour had made it obvious that the day was dying — thermals getting weaker, inversion dropping sharply, wind increasing (sea breeze already?). I had glanced outside the canopy to see the world moving very fast. At least the field looked good from where I was, freshly cut, no animals, near a village — I had idly wondered which one it was. I needed to concentrate, concentrate; there was no place to take chances, too low for high adventure — I had to keep the speed up, keep it going but at last I had resigned and given up the struggle.

The downwind hedge approached and I found that there was hardly any wind at all down there. I bled off the speed gently, not wanting to float too far. Safely over the hedge, I pulled full brake and flared. The tail touched and then the main, the noise and vibration of the roll cluttering the cockpit. I kept the wings level, selected full negative flap and stamped on the pedals to kick in the wheel brake.

The ground felt smooth, it felt good. I came to a stop, eased off the brakes and the world stopped moving. The left wing settled and I fell back into my seat, sweat trickling down my face. I closed my eyes and felt the relief of another successful field landing. Moments passed and the sound of my heartbeat mutated into the whine of a dying vario. I switched it off, undid my straps and climbed out into the warm afternoon breeze.

Perhaps I had been trying too hard. I wouldn't have needed the last scrappy thermal if I'd stayed high and I wouldn't have got low if I'd used the weaker stuff. Well, maybe. There had been clouds, but they'd disappeared an hour before, along with the “Radio 123.4” talk show. I should have noticed the conditions change, should have allowed for it.

... gliding brings its riches in many ways; sometimes in the form of a badge, sometimes in knowing that one has beaten the odds but in all cases it involves some form of personal triumph.

After spending so long in the same area there had been little point in carrying on and I ought to have turned back then — there would have been no shame in that. But I had known that the pleasure of getting around would have far outweighed the convenience of landing back from a failed task.

I studied my map to avoid the embarrassment of having to ask where I was. I thought I'd found it — I had known the village, had been to the local pub, they did a good duck ... my thoughts wandered once more. I picked up some cash, a phone card, a list of numbers and set off for the farm noticing that the postage stamp of a field I had identified from the air had yet again miraculously transformed itself into a Heathrow by the time I'd touched down.

In the distance I saw white specks circling in the deep blue sky but I was past the envy and frustration of a grounded pilot seeing others soaring and just put it down to luck, just one of those days.

I then set off along the access track, heading for the farmhouse, checking on the way for its suitability for trailers. I was not impressed, the track was very rough, littered by small piles of stones and bricks — problems, problems... I'd have to ask if there was another way in.

I explained my situation to the farmer. He was friendly and I was greatly relieved. He offered me the phone and I passed my message. He refused payment and drove me

back to the glider, showing me the easy way into the field. After a brief chat he left, allowing me time to reflect on the day.

Perhaps I shouldn't have rigged at all. Hot, humid highs had never been my favourite soaring conditions. At briefing they had set only modest tasks and I'd considered doing something else. But after I'd helped to rig some gliders I couldn't resist rigging mine. And as it had been rigged, well, it had to be flown...

I removed the tape from the wings and disconnected the controls. I spent 20 minutes removing bugs from leading edges, cleaning as much as I could before the trailer arrived. I stowed the parachute in its container and disconnected the batteries.

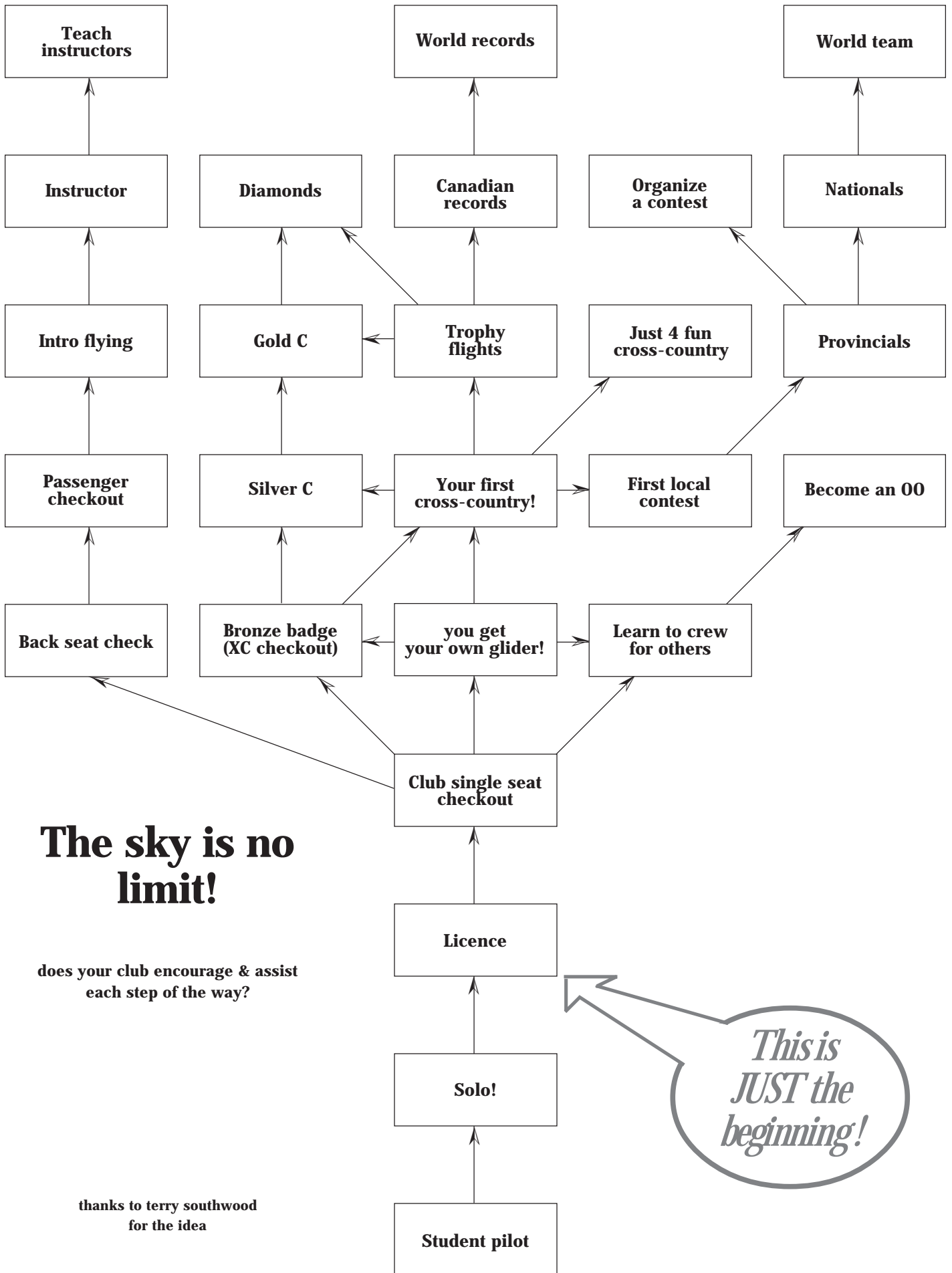
The sun's heat blazed down, the air now still and filled with the sound of humming insects. Japanese technology allowed me to listen to music and I took a walk by the canal with *The Lark Ascending* in my ears. I lay back in the warmth, feeling and smelling the grass and the flowers as if for the first time. Then I felt truly alive and I closed my eyes.

Perhaps this had been the wrong sport for me. But how could I have told without trying? And having tried, I had found myself unable to stop, chased along by the excitement, the uncertainty, the challenge, the beauty, the glory of flying. The frustrations were simply not sufficient to deter me from taking another launch when the weather allowed and I had known I wasn't alone in this passion.

My trailer arrived as the sun set and was shepherded safely into the field. We derigged and as we left the field we checked that nothing had been left behind. “You must feel pretty sick”, my crew ventured, “having landed out. Doesn't happen often to you, does it?” I considered this as I bought them a pint and a bite at the local pub (we ate duck).

We drove into the night and I concluded that gliding brings its riches in many ways; sometimes in the form of a badge, sometimes in knowing that one has beaten the odds but in all cases involving some form of personal triumph. After all, my own flight that day had been merely an exploration just beyond the boundaries of my own experience, with no records (or gliders) broken, no badges gained, no speed or distance of any consequence achieved and it had ended with a gentle reminder that I have much, much more to learn.

And so it was that I found myself once more in the company of my friends, discussing our common passion and making plans for next time, feeling ultimately satisfied with my day. We left the trailer at the club and I set off for my bed, reflecting that just as there are many journeys we can make, so are there many ways of coming home. ❖



The sky is no limit!

does your club encourage & assist each step of the way?

thanks to terry southwood for the idea

This is JUST the beginning!

off the Internet ...

How safe is gliding?

Steve Koerner An hour in a glider seems to involve the same risk of dying as about 20 hours in a car. That's quite a significant difference. Keep it in the back of your mind when flying and be honest with newcomers — soaring is a somewhat dangerous sport...

Kjell Folkesson Flying is much safer than driving. Especially with the advances in technology, corporate knowledge, and safety regulation. According to the National Transportation Safety Board, the odds of being killed in a flying accident are nil. You would have to fly 5 hours per day for 300 years in order to be involved in a fatal air accident. 500 million people per year fly in the US with approximately 750 fatalities per year...

Jeffrey Matthews We can't hitch a ride on the airlines' coat-tails. Would that our record were as good! I'm pretty much convinced that, overall, flying in a general aviation aircraft is more dangerous than driving/riding in a car. But general aviation pilots are a tremendously variable lot, perhaps even more so than drivers. The best of them are probably safer in an aircraft than in a car, since they are less subject to the whims of others. But the occasional pilot, with marginal fair weather skills, tackling challenging conditions, is about on a par with the teenaged driver with 300 hp under his foot and a six pack under his belt. Statistics don't apply to individuals, and probably shouldn't be applied to small groups...

Alexander Kienle Many of my club members have died in glider accidents — including Klaus Holighaus, a world class pilot. However, I truly believe that at least 95% of all airplane accidents are pilot error. I can say that because I have had a glider accident too, but I was just damn lucky to survive. Midair collisions are very rare in gliders but people are dying in cars everyday because of someone else's fault! Therefore I think that gliding is still safer than driving a car...

Bob Lacovara "If you torture the numbers long enough, you can get them to say anything!" The stats per mile, hour, or whatever mean very little and can mean what you want. The bottomline: for the 4 to 15 who bite the dust each year, there are thousands who fly for a lifetime with nary a scratch. Soaring is as safe as your judgement is good and your skills are sharp. My first instructor pointed this out to me with the comment, "This ain't bowling. If you're not going to get real good at soaring, better try another sport."...

Steve Koerner Wait a minute Bob; Robbie Robertson, Helmut Reichmann and Klaus Holighaus all had extremely good judge-

ment and champion flying skills. Clearly, we can mitigate the risk somewhat by being cautious and skillful, but let's not rationalize. The risk is present regardless of how good you are...

David Edgemon Champion flying skills do not equate to good judgement. Another issue here is that a person can exercise good judgement 99.9 percent of the time, and the 0.1 percent can kill you. Exercising good judgement 100 percent of the time is difficult for us all...

Bob Lacovara I agree all of these renowned pilots had extremely good judgement and skills, but they were also risk takers, probably above and beyond pilots of average skill level. Of course no one exhibits good judgement 100% of the time. We make thousands of decisions every time we fly... a skilled pilot will use good judgement where it counts. Of course there is risk every time you leave the ground (or stay on the ground for that matter). All I'm saying is if you take poor judgement (pilot error) out of the general aviation accident stats, the numbers aren't that bad...

Andreas Maurer To get back to exact science: In my car I have had the feeling, "Oh, this might have ended badly", quite often. In a glider never. Perhaps this is the wrong conclusion, but to me this seems to show that there are more dangers on the road than in the sky, and I do not think that I ignore dangers...

Doug Haluza Much of the debate has focused on the relative risk of driving vs flying. The bottom line is this: any activity can be as safe as you are willing to make it. Although flying is more unforgiving of mistakes, the avoidance of risk is more easily controlled. It is unusual to find aviation accident reports where the pilots did not contribute to their own demise. Innocent drivers, on the other hand, are more often involved in an accident they could not prevent (ie. the driver stopped at a red light who gets rammed by another vehicle).

I also believe that the aviation community is more safety-minded than the general population. Therefore the safety-minded pilot not only has greater control, they also have better resources to draw upon. So flying, including soaring, can be as safe as you want, if you are willing to make the necessary commitment to safety...

Julian Fuchs I agree that when gliding you are in somewhat more control of your safety than in a car and that careful pilots are safer. I am sure though that the many good pilots who have died thought they were safe. The point is: we all make mistakes, and we can never be totally protected from the occasional idiot. Actually I 'think' I am

safe but I also think I pursue a dangerous activity. The statistical wizards are missing the point. Most of us drive because we must. Not so for soaring; we do it for fun. And let's be realistic — part of the fun, the appeal of soaring, is the perception of risk. We don't talk much about it publicly but the NZGA's "Gliding Kiwi" had an excellent article about this (and the implications of this in marketing our sport to the general public) a year or so ago which should be required reading for anyone involved in promoting soaring.

Most of us aren't thrill seekers per se. But it's exciting and appealing to know there is a chance, however small, that were we to venture too close to the edge where danger lurks, we could get hurt, or worse. It makes us feel more alive. In reality, though, few of us actually incur much risk. Because like in other sports which advertise safety yet acknowledge risk, skiing for example, the amount of risk we accept is almost exclusively within our control. At the extreme, we can steer our skis straight down the fall line or jump off a cornice into unpatrolled areas. Or we can soar into unlandable mountains or dally with a thunderstorm. With sufficient skill, these may or may not be dangerous but they are never completely safe. Nor, for that matter, is sliding down the beginners' hill or spending a Sunday afternoon lazing about the aerodrome. If they were totally safe I suspect most of us would lose interest and find challenge in "Flight Simulator".

A few pilots get hurt every year because they push too far and go over the edge. A few more make preventable mistakes without intending to take chances which we charge off to bad attitude, poor decision making, inadequate training, etc. Once in a great while, God reaches out and takes someone away from us with no warning, no explanation, and not much in the way of preventing it even if we saw it coming, just as in the rest of our lives.

Part of soaring's appeal is the challenge of improving ourselves so that we can accomplish things that in our earlier flying careers would have intimidated if not frightened us. *Nobody pushes us to do this except ourselves.* That's an important point. Flying, like most things in life, is as safe as you want it to be. If you want a life without risk, try curling up in a corner at home with a crash helmet. If you're willing to accept the risks that (1) a drunk or inattentive driver might cross into your lane or pull out in front of you while travelling by automobile to the airport and (2) that a biz jet might come out of the clouds in your blind spot and clobber you from behind (with the risks of the former being much higher than the latter), then by all means give soaring a try.

Yes, I've lost more friends to sailplane crashes than car accidents, but I wonder if the results would be the same if my flying friends aimed to enrich their lives by practising their driving skills at higher and higher levels. Fly safely and have fun. ❖

incident reports

A DANGEROUS BUSINESS

Hugh McColeman (aka Alpha)
Edmonton Soaring Club

IT WAS A PLEASANT JULY AFTERNOON. The sun shone brightly on the well-grassed field which was being rustled by a gentle crosswind from the right. The two week training session was drawing to a close and the few remaining members were preparing for their last few flights.

Bravo had received his private glider pilot licence a few weeks earlier and was steadily improving his skills in flying the Puchacz. Having become comfortable with flying in the front cockpit he decided to consider flying in the rear and to this end he requested instructor Alpha to give him a rear seat Puchacz checkflight. With Alpha as P1 in front and Bravo as P2 in the rear the preflight checks were completed and the takeoff was started with Bravo in control. Fellow member Charlie ran the wing. Student pilot Delta was the front signaller and Echo was the pilot of the club's 235hp Pawnee towplane.

The initial roll was normal but Alpha soon noticed the flight feeling a bit "strange" but could not identify any problem. After nearly a half mile of travel, both towplane and glider were still not climbing well and the field boundary road was crossed with only some twenty feet of clearance. Following a gentle right turn into wind, Alpha noticed the glider riding too high above the towplane and instructed Bravo to "bring him up". Alpha then felt incorrect pressures on the control column and quickly shouted "I have control". Almost immediately his glance to the left revealed a huge wide open dive brake. With these quickly closed and control returned to a chastened Bravo, the flight rapidly resumed a regular pattern and the rest of the tow and flight were carried out normally.

With this event safely behind them it would have been easy to sweep it under the rug and say no more about it. However, after due reflection and discussion with the individuals involved, it was deemed essential to examine all aspects of the event and to report significant findings for the benefit of the sport in general.

At the outset let us speculate on the sequence of events which may have unfolded had Alpha been only a few seconds slower in reacting. Echo was already having difficulty maintaining a safe airspeed and the

glider was continuing to rise even higher above him, requiring more elevator force with the resulting increasing drag and further loss of airspeed. At some point Echo would have had to get rid of the glider, either by wave off or by directly releasing the rope. With perhaps barely 150 feet of altitude and still fully open spoilers the glider would have had to land straight ahead into whatever topography happened to be there — a very daunting prospect.

As students we were taught that a poor flight performance frequently has its roots very early in the preceding sequence of events. This was certainly true in this case as the following discussion will reveal.

As a student being given a checkflight, Bravo carefully performed the normal preflight checks just before anticipated takeoff. Then the towpilot had to break for fuel which resulted in a few minutes delay. During this interval the wind became a little gusty and Bravo elected to open the spoilers as a safety measure, then failed to close them before the actual launch.

Alpha had flown with Bravo previously and was comfortable with his flying skill. He "knew" that Bravo, as a licensed glider pilot, had performed his preflight checks and was not concerned about the flight proceeding normally. In retrospect Alpha realized that, as pilot-in-command, he should have been monitoring all aspects of Bravo's performance, including a verbal and observed preflight check just before takeoff.

The Puchacz has a rather large cockpit which means that there is a fair distance from the instructor's mouth to the student's ears which requires rather strong voices for effective communication. This situation becomes even worse when the instructor is in the front seat. This flight occurred on a fairly warm day and it was agreed to open both canopy side vents to provide extra cooling.

The associated noise when in motion combined with the above configuration limitation resulted in a serious loss of voice communication which Alpha, in the front cockpit, did not immediately recognize.

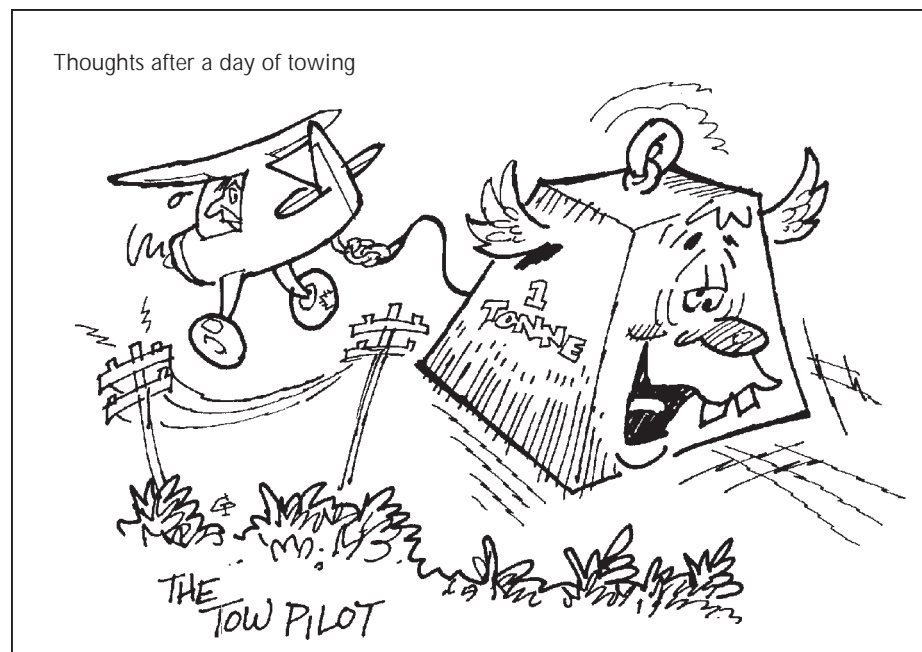
When Alpha first noticed the relatively high level of the glider he ordered Bravo to "get him up" and added an upward hand signal. Not hearing the order clearly, Bravo interpreted it to mean to "bring the glider up". Fortunately Alpha was following the controls also and promptly recognizing the situation, took over full control. He then realized that his command should have made direct reference to "lowering the glider" rather than to "raising the towplane".

Charlie, the wingman who launched the flight, spotted the open spoilers just as he released the wing. He shouted at the departing glider but was not heard. Also, he failed to use the "hands up" stop signal which the front signaller would normally repeat to the towpilot and glider pilot, hopefully in time to stop the tow.

Delta, the front signaller, seemed to not see or recognize the open spoilers and failed to use the "hands up" stop signal which might have alerted Echo and the glider pilots to stop the tow.

Charlie promptly called Echo on the radio to advise him of the situation. Echo immediately applied the standard rudder wagging signal to warn of open dive brakes. The towplane appeared to be in continuous turbulence and neither Alpha nor Bravo recognized the rudder motion as other than normal for the situation.

It should be clear from the above narrative that "dive brakes open" takeoffs can have very serious consequences and the need to avoid them should be emphasized much more strongly than at present. The first three members involved in this [next page](#)



case were mature responsible individuals, yet they all failed in some degree to recognize the situation and act accordingly.

Delta, the front signaller, was a new student who had probably received little ground crew instruction, so his not recognizing the situation and not acting accordingly can hardly be faulted.

Our ground crewing and flight training should be directed more sharply towards minimizing the problem as much as reasonably possible. The following suggestions may help to improve the situation:

- a) Emphasize that cockpit checks should be completely repeated whenever interrupted or whenever launch delays occur.
- b) In the training of instructors and glider pilots, emphasize the need to avoid "spoilers open" takeoffs, much as we emphasize the need to avoid stalls and spins.
- c) In the training of wing runners and front signallers, emphasize the importance of "spoiler awareness" and the need to react promptly when appropriate.
- d) Impress on instructors and students the need to ensure that their voice communications are being effective. This includes the need to close canopy side vents during takeoff, tow and/or launch.
- e) Review the use of the rudder wagging signal to indicate "dive brakes open". It was not effective in the above case.
- f) Impress on all glider pilots that, if an unidentified problem is affecting the flight, such as an unusually slow climb rate, checking the spoilers promptly may provide the solution.

COMMENT

Ian Oldaker, Chairman
Flight Training & Safety Committee

Hugh has contributed a valuable article to flight safety with this frank discussion of

problems that any one of us might encounter, and that in this case he has shown us several "lessons learned". Our thanks to Hugh and his fellow club members for sharing this experience with the rest of us. Actually there are several instructing points that I would like to add which come out of his article, that instructors can think about to improve their instructing knowledge and techniques.

1 Cockpit checks are very important. This means that instructors, when checking out someone for the first time for flying from the back seat, should be very aware of the need to more closely monitor what the person behind them is doing. A request for a verbalized check should always be the rule. Even then, the instructor should be doubly aware of the extra pressure on the rear seat pilot, so close monitoring of the pilot's performance is a must here.

2 The need to keep the back of the left hand up against the spoiler handle, to notice if it inadvertently opens during the takeoff run, should again be the rule.

Instructors should be teaching all pilots to do this, and to give them the dual reasons why: First to notice the open spoilers (ie. handle not fully forward and locked) or opening of the spoilers during the takeoff, as above, and second to have somewhere for this 'spare' hand to go that is also safely facing away from the release knob. The hand should not be near the knob ready to grab it, as an inadvertent release is not what we want when low! In the incident described, had the instructor and the rear pilot placed the backs of their left hands against the spoiler handle, they would have been much more likely to notice the open spoilers much earlier and therefore to have avoided this incident quickly.

3 The instructor in the incident initially said "get him up", when he wanted the glider

to be lowered relative to the towplane. Instead he later recognized he should have said something like "lower the glider". This is a good lesson learned.

Nowadays we teach all instructors to refer to what we want the student to make the glider do. For example, when we want the pilot to increase the angle of bank we should be saying just this, to increase the bank angle, not "feed in more aileron", whatever that means! Also we should be referring to the glider's attitude, and not telling the student to push the stick forward or back. This is pretty basic stuff and important when someone is learning, as the preferred type of instruction should make the student think, whereas telling the student to do this or that merely checks how good they are at following orders! Of course we have to order them to act when time is very short, and we have to take over control when time is about to run out. The exact point in time when to act depends on your experience, and actually we should allow for longer reaction times as we get older. So older instructors take note, and act well in time!

4 Towpilots sometimes have some difficulty making clear signals (have *you* practised recently?), especially the newer rudder waggle signal. At the same time, glider pilots who have not seen such a signal will have their own problems recognizing it! This incident showed such a situation.

It is strongly suggested that all towpilots be asked to practise both the wave-off and rudder waggle signals, and to do this at the beginning of the season when these signals can be demonstrated also to the glider pilots during their start of season check-flights. Of course the demonstrations will need to be planned by the instructors and agreed with the towpilots before the flights. *Try it next season.* I think you will find it not so easy to do the first few times, but the practise and demonstrations will be effort well spent.

5 Unknown problem during a flight, especially when low on tow? SOAR! The SITUATION is that we are very low over the boundary, that there is a lower than normal climb rate, or the tug seems sluggish. OPTIONS.. Hold on, may not avoid trees, or release perhaps, but too low right now.. or check why is climb rate so bad? Oooh! spoilers are open! ACT.. close spoilers.. REPEAT. Situation is now resolved as we recover from the embarrassing open spoiler problem.

Instructors should note the use of the SOAR technique here. It was done very quickly indeed. If we teach our students to use this technique, we will be using it too, and this example is a good one for using it under a high stress situation. Clear step-by-step thinking will only come about after pilots have used the technique routinely, hence the need to teach it soon in a student's flying training and to use it often to ensure it becomes a habit. Only in this way will SOAR be used by pilots when under stress; this is when its use is perhaps most valuable. ❖

Test flight results — spoiler/divebrake open on tow

14 October 1996, sunny, a very light breeze. Towplane: 235 hp Pawnee. Sailplane: Puchacz trainer. After launch at about 1500 feet following tests were performed:

- 1 From the rear cockpit the spoiler latch was gently released, and the handle moved about 1 to 2 inches. The brakes promptly opened fully when not restrained.
- 2 Repeating the procedure, the handle was moved very gingerly, only an inch or so. The brakes did not open further. There seemed to be a sticky zone of about an inch of the handle travel which prevented spoiler opening.
- 3 The procedure was repeated from the front seat and, in addition, a fairly sharp forward movement of the control column was applied. The brakes immediately opened fully.
- 4 Leaving the spoilers fully open for a few moments, the towing airspeed dropped about 5 knots but the climb continued slowly. It is questionable whether a less powerful towplane would maintain safe flying speed or even climb at all.
- 5 The towpilot then gave the "spoilers open" signal by wagging the rudder at differing rates of speed. At a rapid rate it was difficult to discern clearly whether the motion was a signal or simply normal control activity. At a slow rate, so slowly that the towplane wings started to waggle also, the signal was quite clear. Whether this would still be the case in turbulent air is a bit uncertain.

BUILDING A SAFETY CULTURE

Fred Kisil
Flight Training & Safety

SITUATION High accident rate
OPTIONS 1 Modify behaviour/attitudes
2 Modify rules & regs
ACTION Focus on the first option (but do not discard the second)
REASSESS See below

Whenever a serious accident occurs, there are strong pressures to do something. Do what? Where to make the changes? How do we go about sharpening pilots' decision making skills or attitudes, particularly in stressful situations? What can we do to acknowledge and respect our own limitations, as well as those imposed by equipment, conditions or experience?

In the barnstorming era, piloting fragile aircraft was more of an art than a science. Today we have a better understanding of the principles of flight dynamics and fly reliable, high tech sailplanes with predictable characteristics. But what about the pilot? Judging from the accidents, there is still much progress to be made in training pilots to operate the equipment in a safe manner. How can we improve on the human factor and our safety? In our Association, we are addressing these issues in our training program. The introduction of the SOAR technique is but one example. What can each pilot do to improve the human factor in flying safely? The following examines areas which may be targeted for changes to achieve the desired effect, namely, a reduction in accidents.

In the aftermath of an accident one common response is to introduce additional regulatory measures. An examination of rules and regulations may be a worthwhile and much needed cathartic exercise. However, it is not realistic to expect that the elongation of the list of regulations will by itself serve to eliminate accidents. Moreover, the introduction of additional rules and regulations that change the standard operating procedures can introduce elements which in turn may be misinterpreted or misused. Would the individuals involved in accidents have been better pilots if a long list of do's and don'ts was a part of their training curriculum? I doubt it.

Rules and regulations help define conditions and limitations to the operations, but cannot be a substitute for knowledge, understanding, experience and good decision making skills.

The wide variability in human nature effectively means that we are all thinking and responding in our own unique ways. Given the wide spectrum of human personalities, we see, on one hand, individuals who follow each and every rule to the letter. These individuals may appear to be model pilots

and fly for many years without incident. They respond well to new rules. However, they rely so heavily on rules that they may not be able to adequately cope with a novel situation for which a rule does not exist. At the other end of the spectrum, some individuals take the attitude that rules were meant for the other person. They appear very confident. They pick and choose which rules they will follow and invent some of their own. By their innovations, they get to demonstrate in a destructive manner which ones don't work. They don't respond well to new rules.

It would appear from the foregoing that the focus of attention in accident prevention has to be on individuals. We have the collective responsibility to set examples by our own behaviour and attitude at the flight line. The positive action we can take is to *foster and maintain a safety culture*. In this environment, all pilots have a personal commitment to strive to maintain currency and a high level of proficiency. Positive reinforcement by ones' peers provides support and encourages others to join the safety culture. Time spent in reinforcing the positive actions and attitudes in a publicly vis-

Finnish Fool's Gold from page 7

long, semicircular swath I'd sculpted out of the field, I was amazed that even the landing gear doors were undamaged. Obviously the headwind and my landing near stall speed eased the shock of the telemark, but a lot has to be said for the durability of the LS-4!

I was soon joined by a farmer who lived in an adjoining lot — who had gaped at my landing and was prepared to administer first aid to the injured. After exchanging greetings, it became clear to him that I was not Finnish so I made a joke about a wrong turn in New Jersey. This broke the ice and soon we were making up headlines for the local newspaper: "aliens from space land in Finnish barley field", etc... He invited me to his house, where his wife had already prepared sandwiches, tea and homemade blackberry juice.

After calling in my location to the ground crew, the farmer and I spent the next two hours chatting and surveying the best way to remove the sailplane. By the time the trailer arrived, aircraft disassembled and packed, money paid for field damage and the drive back to Kymi, it was near midnight before I retired to a rickety bunk that had never before felt so welcoming.

Lessons learned In the debrief the next day, it was decided that I probably would have made it if I had flown the task in the other direction, offering me two downwind legs instead of one. This was such a shockingly simple observation that I had to ask myself why had I opted for an upwind first leg? The answer, I realized, was that I had been attracted by the nice line-up of my

Experience is not what happens to you, it is what you do with what happens to you.
Aldous Huxley

ible manner can be highly productive in changing attitudes. By comparison, actions such as derogatory comments and the imposition of additional rules and regulations tend to make people hostile and turn them away from modifying their behaviour.

In a safety culture, when we recognize potential problems we take responsibility for initiating corrective actions. The action could be as simple as communicating our concerns directly to those individuals who have the authority/knowledge to deal with the problem. Likewise, when we receive feedback, we take responsibility to evaluate the message as objectively as we can. Do we recognize that our attitude and ego affect our perception of the problem ⇒ p17

northeasterly route and the morning cloud streets. As most of my earlier cross-country flights had been out-and-returns, I simply didn't realize the later implications of this decision. On the other hand the club members felt I'd handled the landing with skill. Personally, though I was disappointed to have failed my first 300 kilometre attempt, I was glad to have managed the "ordeal by fire" of an actual off-field landing.

The clincher of this whole episode occurred two days later when Marika admitted that she had mistakenly given me an incorrect turnpoint, meaning that the 300 kilometre task had actually been 292! So it was indeed fortuitous — for her and for me — that I never made it!

In retrospect I have to say that this flight taught me more about soaring and myself than any other, convincing me that pilots and clubs should invest more of their time and effort to producing competent cross-country pilots. Not only does it make us safer but it also vastly enriches the soaring experience! Tooling about the field for four to six hours just doesn't have the attraction it used to since I attempted the Gold distance flight.

I'm certainly looking forward to my second attempt next summer. I'll be more strategic in my planning and decision making before and during the flight, which I hope will make the difference. And if not, I know a lot more about off-field landings and jokes to disarm crop-damaged farmers! ❖

In the next issue of free flight, Robert will tell how he came to be soaring in Finland and describe the active Finnish gliding club scene.

SAC news

COME TO THE AGM Seminar info to date

- 0830 AIRSPACE
Pierre Pepin & Transport Canada
- 1000 CROSS-COUNTRY SOARING
– Early Flights *Nick Pfeiffer*
- 1000 INSTRUCTING – SAFETY
Ian Oldaker
- 1100 CROSS-COUNTRY SOARING
– Mountains
Hans Baeggli & Trevor Florence
- 1100 JUDGEMENT – pilot decision making
Terry Southwood
- 1200 lunch
- 1330 THE COWLEY WAVE
Tony Burton
- 1330 PHARMACOLOGY and
PHLYING
Dr. Peter Perry, MB, ChB
- 1430 EXPLORING THE REST OF
THE ENVELOPE *Ray Maxwell*
- 1430 COMPOSITES
Dan Ursenbach
- 1530 PARACHUTES
John Davies
- 1530 BADGE FLYING
Tony Burton
- 1630 WORLD CLASS GLIDER
Charles Yeates



Coming Events

Glider pilot ground schools, Toronto area, beginning & advanced sessions. Details: ff 6/96, p16.

19 Feb - 23 Apr **Erin Soaring glider pilot ground school**. Weds evenings 7:30 to 10:00. Terry Miller Rec centre, Bramalea. Call Ernie Nemeth or ESS: (519) 528-2242, (905) 846-0822, or 840-7795.

14-16 Mar 1997 **SAC AGM**, Vancouver. Details on page 22-23 in the last issue of *free flight*.

6-17 July **Canadian Nationals**, 15m, Standard, and Sports, Rockton, Ontario. Contact Dave Springford, springford-d@rmc.ca (613) 634-2056, or Al Wood akwood@interlog.com (905) 793-9849. There will be a Nationals Homepage starting up soon on the SOSA homepage at: <http://psych.utoronto.ca/~sosa/>

26 Jul - 4 Aug **25th Cowley Summer Camp**. Celebrate the special occasion – there will be many events at the camp besides the fun and great soaring. All interested pilots are requested to call in advance this time so that the Alberta Soaring Council can organize for the numbers. Contact: Tony Burton (403) 625-4563 - free-flt@agt.net

PUT COWLEY ON THE CALENDAR

Work has started to organize the 25th Cowley Summer Camp, which will be held 26 July to 4 August. This will be a soaring celebration with many extra events taking place besides the usual great summer soaring and wave flying over fine foothills scenery. If you have been to Cowley before, you know exactly what I mean — if you haven't, this is the year to come and experience it! BUT, as we expect to see a large number of pilots (100+) and visitors participate from across western Canada, the USA, and points further east, it is *most* important that, *this time*, we know beforehand of your intention to attend. Then we can ensure that sufficient towplanes and two-place gliders are on hand, choice of banquet facility is adequate, etc, etc. We especially need to know what *clubs* outside of Alberta will plan a major trek to Cowley for the 25th. Contact Tony Burton for info. Details later.

SAC APPOINTS LEGAL COUNSEL

At the last SAC Board meeting, Mr Robert Wappel was appointed as legal counsel to SAC. He has assisted us with a number of legal issues, and through his efforts a significant donation was obtained for the Association. Robert is a life member of our Association. He attended law school at the Osgoode Hall and was called to the Ontario Bar in 1978. His firm handles litigation law as well as corporate and commercial matters, but he has specialized in the area of non-profit and charitable organizations for many years. It is this capacity that he is particularly well qualified to assist us, and we welcome him on board.

Richard Longhurst, Ontario Zone Director

AIRSPACE UPDATE

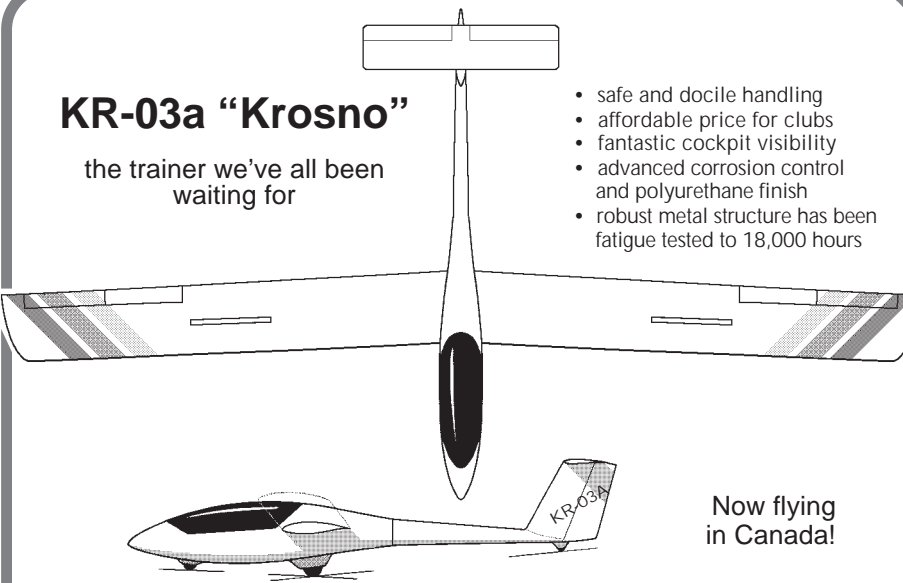
SAC has strengthened its Airspace committee in response to the recent enlargements of controlled airspace. Joining Bill Green of VSA are Scott McMaster of SOSA and Ian Grant of GGC. These people so far have worked hard on reviewing past correspondence and reports to understand why the airspace changes took place and what consultation took place between Transport Canada and SAC. We have begun comparisons with other countries such as the USA, the UK and New Zealand.

We have also contacted clubs in every region. The situations vary: some clubs are unaffected, some have been under controlled airspace for some time and have learned to live with it, and others are, well, mad. Most affected clubs are negotiating local airspace agreements with their local air traffic control centre. Those in the Toronto area are discussing an alternative TCA structure for Toronto airport with NavCan and Transport. We intend to request more information from each club on its situation.

Possible roles for the committee include coordinating local airspace agreements to ensure consistent treatment, and acting as the focus for contacts with government and other aviation bodies to minimize the impact of controlled airspace on soaring.

SAC expects that senior representatives of NavCan and Transport Canada will attend the Annual General Meeting in Vancouver. This will be an opportunity for members to discuss airspace issues. Send your input and comments to the committee at the addresses given on page 17.

Ian Grant, Airspace committee



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club news

ONTARIO SOARING ASSOCIATION STATUS

The OSA assists Ontario gliding clubs in mounting worthwhile projects such as the provincial contest, XC clinics, instructor clinics, etc. This is done by helping defray the cost of the project through grant money received from the Ontario Ministry of Culture, Citizenship and Recreation. Some of you may be waiting for cheques for projects that have been completed. We are working on getting them out to you. If you are having a problem with the paperwork, or have questions, please contact me. Funding for the current year 1996-97 is likely to be about \$12,000. We already have received approximately \$3700 of this.

Soaring, along with every other sport that did not compete in the Olympics, Ontario Games, Pan-American games, had its funding for 1997-98 cut to zero. Our executive is not at all optimistic at finding another source of funding soon. So, the question for you is: What role, if any, does OSA play in the soaring movement?

Notice of Annual Meeting An annual meeting of the Association will be held in Toronto, 10 am, place TBA, on April 15, 1997, to deal with this issue. We have a room donated to us, it holds about 20. These meetings usually attract about 40. If 40 or so plan to attend we will have to rent a room at a cost of about \$80. So, as you can see, we're trying to save money. This is the reason for the AGM notice — contact me and let me know if you plan to attend.

WebSite OSA is operating a Website at www.interlog.com/~kwithrow/osa.html. In addition we have created sites, at no charge, for Toronto and Beaver Valley. The site is intended mainly as a jumping off point for people looking for info on Ontario soaring to get to member clubs.

Ken Withrow, president (416) 621-3342
36 Toledo Rd, Etobicoke, ON M9C 2H3
kwithrow@interlog.com

MSC 1996 FLYING SEASON

The year certainly didn't start off well for the Montreal Soaring Council with all of the wet weather through the spring and early summer. Around July it went from chilly, rainy, early spring-like conditions directly into the steamy, dog days of summer. August was hot and dry and so partially made up for the start. A few good days in September and a reasonably fun wave camp in October rounded out a year with slightly less than 1995's number of flights. Our membership was down initially, no doubt due to the weather. We did top out around our regular levels by September. The arrival

of our second Krosno (to complete the replacement of our venerable 2-33s) was offset by the subsequent heavy damage to our first KR-03a. We hope to have the first back in the air by beginning of the season. While there were a number of Gold and Diamond badge attempts, it seems Murphy always seemed to get into the equation. A lot of grumbling suggested that the real challenge of the badges is the correct capture of the required evidence. Ah well, a little more planning and attention to detail next time...

Gilles-André Séguin's "Fun Soaring Contest" in July was well attended again, albeit with less visitors. There were only a few good days over the week, but a few intrepid newcomers did some of their best cross-countries to date, some in club 1-26s, some in private glass.

At the end of July MSC held its 50th Anniversary party. The hangar was converted into a banquet hall with two 1-26s and a Single Astir hanging from their slings. Over a 150 guests — present and former members and wellwishers — celebrated the first fifty years of MSC. Some former members came from across Canada to share some of their personal stories.

The wave camp at Lake Placid was a success, despite the installation of new runway lights. There were at least three or four good wave days and a fair number of flyable ones, a major contrast to the previous year. No badge heights, but some days the wave was to 14,600 feet. MSC is drafting a wave block airspace agreement with USA controllers. We have been quite pleased with the courteous, professional service and assistance they have offered us. Finally, MSC was open for flying until 25 November. Nothing in the way of thermals, mind you. Just a lot of pilots who wanted to fly one more time before we lovingly put away the ships for their winter hibernation.

Peter Kom

AWARE *Aviation Weather, Playing by the Rules.* publisher: Atmospheric Environment Service with the National Search & Rescue Secretariat and Transport Canada. 250 pages, numerous diagrams, photographs, quizzes and exercises. Order from SAC; ask about bulk price.
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ONTARIO SOARING LADDER

At the close of the 1996 Ontario Soaring Ladder, ten pilots had claimed 50 cross-country flights totalling 10,231 kilometres. On the top rung for the second year is Dave Frank of Rideau Valley Soaring. Dave claimed five flights totalling 1690 km which, subject to verification, earn him 1573 points, top place, and a handsome pewter mug. Top in the novices' category is Peter Vados of SOSA, who will also receive a mug in recognition of his several fine flights in the Club Hornet. See final results below.

Compared to last year, the number of contestants is down, but flight numbers are identical, and total distance is up. The fact that the participants are mostly repeat customers, and various appreciative messages are scribbled on flight claim forms, indicate that the Ladder has an enthusiastic following. I estimate, based on contest entries, that 40 to 50 pilots at Ontario clubs actively fly cross-country. If so, participation in the Ladder represents only about 25% of the "market". Doubling current participation levels appears feasible and would generate a healthier competition.

The Ladder rules differ slightly from the SAC and Alberta Soaring Council trophies regarding the scoring formulas for declared versus undeclared flights, altitude gains and badge flights. These differences do not greatly alter the standings, whereas common rules would have the advantage that results can be compared. The Ladder might act as a feeder for entries to the national trophies. So, unless someone proposes otherwise, I intend to adopt the SAC scoring rules for next season's Ladder.

Discussion has raged on whether scoring should be "open" or "closed". The argument in favour of "closed" is that one high scoring entry could discourage others. On the other hand, the idea behind publishing scores is to create a sense of competition. A good score should encourage greater efforts! Hence I encourage participants to claim their current flights. Lastly, the Ladder serves to document cross-country flying activity in discussions about airspace. Ontario pilots give it a try this season! Ladder rules are on the SAC website.

Ian Grant, Ladder administrator
(613) 737-9407 (H), 995-2609 (B)
grant.i@atomcon.gc.ca

| Pilot | Club | Glider | Call Sign | No. Flts | Total km | Pts | Place |
|---------------|------|------------|-----------|----------|----------|------|-------|
| Dave Frank | RVSS | ASW-20 | SR | 5 | 1690.9 | 1573 | 1 |
| George Wilson | LSS | Libelle | JK | 7 | 1479.2 | 1339 | 2 |
| Peter Vados | SOSA | Hornet | DW | 4 | 867.5 | 1046 | 3 |
| Chris Eaves | LSS | ASW-20 | XU | 8 | 1710.9 | 1042 | 4 |
| H. Juergensen | AS | ASW-20 | J3 | 4 | 877.0 | 824 | 5 |
| Doug Bremner | SOSA | SZD-55 | XT | 6 | 1105.0 | 785 | 6 |
| Sue Eaves | LSS | LS-4 | SU | 6 | 849.1 | 700 | 7 |
| Gilles Séguin | MSC | DG-200 | GS | 4 | 703.0 | 695 | 8 |
| Jaro Felifar | MSC | Std Jantar | BW | 4 | 588.0 | 606 | 9 |
| Ian Grant | GGC | LS-4 | ZT | 2 | 360.0 | 375 | 10 |

Letters & Opinions from page 5

will recognize the immortal quote, "I have seen the enemy, and it is us".

We're getting great value for the money we spend on SAC, and we need that organization's services more than ever before if we are to continue to soar in this country. Let's not nickle and dime SAC to the point where it is powerless. On the contrary, we should invest more money in it unless we want to fold our cards and slink away from soaring.

David McAsey, Cu Nim

RADIOS IN GLIDERS

I am writing in response to the article in the Dec/Jan *free flight*, "Chaos in the Air". Congratulations to all that Eileen had a happy ending. Her experience evoked strong memories of a similar incident when I was flying in a Puchacz with my daughter. It also ended happily, even if in our case we had to land at a different airport to the one from which we had started.

I would like to reinforce and concur with the two most important conclusions that Rudi, Eileen's instructor, drew from her experience. The first is the case for the use of radios in gliders for added safety, and the second is the need to ensure that there are no loose objects (including radios) in the aircraft, no matter what the nature of the intended flight might be. In addition, a boom mike or a headset are the preferred means

for leaving the pilot free to control the aircraft, particularly under difficult circumstances such as experienced by Eileen, while being free to communicate with the ground or another aircraft at the same time.

It is a part of an aerobatic flight pre-check to ensure that there are no loose objects anywhere in the aircraft, and not just in the cockpit. Eileen's jitterbug in the air is even more conducive than aerobatic maneuvers to displace things. There are a myriad examples of loose objects such as pens and pencils, control knobs, even sandals, etc. that have caused accidents and even fatalities. A few years ago in Poland it was suspected that the handle of a wheel brake parted with the cable and blocked the control stick. Both pilots had to bail out, unfortunately with one fatality.

The use of radio, in addition to its obvious functions in controlled airspace and in navigating from place to place, can and has proven to be an invaluable contribution to safety in emergency situations. An obvious example being that old chestnut, when airbrakes are accidentally deployed during takeoff and aerotow. In addition, in cases like that of Eileen at Pemberton, or many other training scenarios, the radio can enable an experienced pilot or instructor to give comfort and guidance in the decision making process during stressful conditions.

There are several recent examples of gliders which have been written off and pilots injured or killed in Canada and the USA in situations, such as takeoff with open spoil-

ers, that could likely have been saved if the glider had a radio — or it had been turned on (this was a Discus in Pennsylvania). One Blanik or one Discus will buy a lot of radios!

Finally I would like to close with an incident in which the use of radio actually makes it possible for me to recount the following anecdote:

I was not flying in wave, but was at 24,000 feet when I thought I saw grass in the frost-covered roof of my bubble canopy. I was trying to brush it away with my hand when I was startled out of my trance by a voice in my earphones saying: "Peter! Peter! oxygen, oxygen, pull out, pull out!"

I was in a formation of six Spitfires on sweep along the French coast in the spring of 1941 and although both oxygen gauges were working perfectly, no oxygen was being delivered to the mask. I was the victim of hypoxia-induced euphoria and was upside down (hence the vision of grass in the canopy) and flying erratically before being alerted over the radio and recovering at a lower altitude. Needless to say, as was the custom of those times, my benefactor was duly rewarded later in the Sergeant's Mess.

One final thought for consideration is the infinitesimally small cost of a radio compared with even one life saved or the fractional cost compared with the investment of a glider itself.

Peter Kurylłowicz,
York Soaring



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mprsoar@agt.net

... a safety culture from page 13

and our responses? There is no unique quick-fix solution. The quest to reduce accidents is an active ongoing process that requires commitment, vigilance and perseverance. The irony is that if the system works, nothing is seen, ie. safety is no accident. It's time to examine how the safety culture can be better integrated into our individual and collective operations. Does your club have a safety committee which is a visible entity? Do you sense the presence of a safety culture in your club? Do you know what is being done to promote and facilitate safer operations? Would you please share your successful ideas with our colleagues so that we might benefit from your experiences. ❖

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The following badge legs were recorded in the Canadian Soaring Register during the period 14 Nov to 21 Dec 1996.

DIAMOND BADGE

279 G.E. (Tim) Wood USA

SILVER BADGE

884 Anthony Rywak SOSA
885 Douglas Smith Vancouver

DIAMOND DISTANCE (500 km)

Lewis Burwash Edmonton 504.1 km ASW-20FP Chipman, AB
Carsten Schraeder SOSA 507.6 km LS6B Julian, PA

DIAMOND GOAL (300 km goal)

L. Tracie Wark York 304.3 km ASW-19B Julian, PA
G. E. (Tim) Wood USA 301.9 km LS3A Elbert, CO
Peter Vados SOSA 300.7 km Hornet Rockton, ON
Carsten Schraeder SOSA 322.2 km LS6B Julian, PA

DIAMOND ALTITUDE (5000 m gain)

Michael Swendsen Cu Nim 5760 m HP-16 Cowley, AB

GOLD DISTANCE (300 km)

Tracie Wark York 304.3 km ASW-19B Julian, PA
G. E. (Tim) Wood USA 301.9 km LS3A Elbert, CO
Peter Vados SOSA 300.7 km Hornet Rockton, ON
Carsten Schraeder SOSA 507.6 km LS6B Julian, PA

GOLD ALTITUDE (3000 m gain)

Michael Swendsen Cu Nim 5760 m HP-16 Cowley, AB
Douglas Smith Vancouver 3020 m Grob G-102 Hope, BC

SILVER DISTANCE (50 km)

Anthony Rywak SOSA 62.7 km 1-26 Rockton, ON
Carsten Schraeder SOSA 92.7 km LS6B Julian, PA
Douglas Smith Vancouver 53.4 km Astir CS77 Invermere, BC
Tim Daniel Vancouver 53.4 km Astir CS77 Invermere, BC

SILVER ALTITUDE (1000 m gain)

Anthony Rywak SOSA 1430 m 1-26 Rockton, ON
Michael Swendsen Cu Nim 5760 m HP-16 Cowley, AB
Peter Plant Air Sailing 1160 m Discus Minden, NV
Larry Bogan Bluenose 1460 m Ka 6E Stanley, NS
Douglas Smith Vancouver 3020 m Grob G-102 Hope, BC
Tim Danie Vancouver 1880 m Astir CS77 Invermere, BC

SILVER DURATION (5 hours)

Paul Hajduk Vancouver 5:45 h Grob G-102 Hope, BC
David Ridding York 5:33 h 1-26 Arthur East, ON
Anthony Rywak SOSA 5:45 h 1-26 Harris Hill, NY
Peter Plant Air Sailing 5:05 h Discus Minden, NV
Roberto Centazzo York 5:30 h 1-23 Arthur East, ON
Larry Bogan Bluenose 5:16 h Ka 6E Stanley, NS
Douglas Smith Vancouver 5:25 h Grob G-102 Hope, BC
James Swank Vancouver 5:10 h Blantik L-13 Hope, BC

C BADGE (1 hour flight)

2539 Paul Hajduk Vancouver 5:45 h Grob G-102 Hope, BC
2540 Anthony Rywak SOSA 3:20 h 1-26 Rockton, ON
2541 Michael Swendsen Cu Nim see Diamond altitude Cowley, AB
2542 Gino Cavicchioli York 5:13 h 1-23 Arthur East, ON
2543 Peter Plant Air Sailing 5:05 h Discus Minden, NV
2544 Roberto Centazzo York 5:30 h 1-23 Arthur East, ON
2545 Carsten Schraeder SOSA see Diamond distance Julian, PA
2546 Larry Bogan Bluenose 5:16 h Ka 6E Stanley, NS
2547 James Swank Vancouver 5:10 h Blantik L-13 Hope, BC

"Buzz" Burwash finally finished his Diamond distance. Thank you God! He's done them before but documentation has been his bug-bear. He did a 500 in 1995 and then sent in an elaborately prepared application which included long explanations from his OO about not being able to see the canopy mark. Of course if the OO can't see the mark, which he presumably put on the canopy, it's no good for a Diamond. Then came the total desolation in Buzz's voice when I called him with the bad news — it was like he just lost his job or something — you had to be there. The mark was either too skinny or not in front of the lens. More than once I have had to tell my OO for a flight that the mark is not acceptable — do it again, better! The mark has to be prominent and dense — it won't block the photo, it will appear as a broad fuzzy band across the negative.

Carsten Schraeder really cleaned up with one flight at the Ridge in a borrowed glider. He completed all the distance legs and a Diamond goal.

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| 4 | FAI 'C' badge, cloth, 3" dia. | \$ 6.00 |
| 5 | FAI SILVER badge, cloth 3" dia. | \$ 6.00 |
| 6 | FAI GOLD badge, cloth 3" dia. | \$ 6.00 |
| 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 4-12 ordered through FAI awards chairman</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 form (<i>also stocked by club</i>) | n/c |
| 14 | Official Observer application form (<i>also stocked by club</i>) | n/c |
| 15 | SAC Flight Trophies application form (<i>also stocked by club</i>) | n/c |
| 16 | FAI Records application form | n/c |
| 17 | Flight Declaration form (<i>also stocked by club</i>) per sheet | n/c |
| 18 | Badge & Record Flying, ed. 7 | \$ 6.00 |
| 19 | FAI Sporting Code, Section 3, Gliders (rev 1 Oct 96) | \$10.00 |

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| Insigne FAI 'B', plaqué argent | |
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| Insigne FAI 'C', écusson de tissu, 3" dia. | |
| Insigne FAI ARGENT, écusson de tissu, 3" dia. | |
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| Insigne FAI 'C', plaqué argent | |
| Insigne FAI ARGENT | |
| Insigne FAI OR, plaqué or | |
| <i>Les articles 4-12 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 (<i>aussi disponible au club</i>) | |
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| Formulaire de demande pour trophées de vol de l'ACVV (<i>aussi disp. au club</i>) | |
| Formulaire de demande pour records FAI | |
| Formulaire de déclaration de vol par feuille (<i>aussi disponible au club</i>) | |
| Vol pour certificats et insignes, éd.7 (anglais seulement) | |
| FAI Code Sportif, Section 3, Planeurs (rev 1 Oct 96) | |

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 13-19 sont disponibles au bureau national de l'ACVV.

SAC National Office, 101 – 1090 Ambleside Drive, Ottawa, ON K2B 8G7 tel (613) 829-0536 • fax (613) 829-9497 • email sac@comnet.ca

Trading Post

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

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

single seat

Wanted, Schweizer 1-26, late model preferred. Terk Bayly (519) 538-4262 or fax (519) 599-3664.

1-26, two for sale with open trailers. One needs fuselage fabric, \$5750. Second for parts or made airworthy by replacing corroded tubing and re-covering fuselage, \$3750. \$9000 for both as is. Glenn Lockhard (613) 692-3622.

BG-12A, CF-RCU, 350 h, one piece canopy, re-conditioned in 1995, glass trailer, Security 150 chute, portable radio, wing covers. \$7500. Norm Wagner (250) 344-6685.

Ka6E, C-FYGS, 1015 h. Condition impeccable, instrumentation complete incl. vario électrique, vario l'échelle 0 à 1 m/s max, Radair 10 et autre. Pas de roulotte. \$10,000; faite votre offre. Pierre Brousseau (418)627-2025 rés, (418) 563-0248 tr.

HP-11, CF-CMZ, a lovely ship to fly and great for XC. Std Class performer for half price. Full panel incl Varicalc computer, encl metal trailer. \$12,000 obo. Mike Apps, (403) 436-9003 (H), (403) 435-7305 (W), mapps@nofc.forestry.ca

HP-14 mod, C-FXFP. Self-launching, trailer, chute, many extras. Not enough time to fully use this good XC performer. Sell, or share and relocate to any central or southern Ontario club. Make offer. Ron (705) 689-5528, fax 329-2108.

RS-15, C-FWSE, #43, 873h TT, basic instruments plus RICO vario/audio, encl metal trailer, O2 system with A14 regulator. Contact Harold Yardy (705) 654-3205.

Phoebus C, C-GAZO, 1050h TT, good condition, oxygen, parachute, good enclosed trailer. \$18,500 (will consider offers). Clarence Iverson, Saskatoon Soaring Club, (306) 249-1420. e-mail ad401@sfn.saskatoon.sk.ca

Salto, less than 50 hours, short and long tips, 37:1, Becker radio, Winter vario, excellent finish, modified Schweizer trailer. US\$30,000. prefer trade for Std ship ± cash. Bill Drury (423) 745-3622 (Tenn).

Jantar Std, C-GUJF, 850h, Sage vario, Varicalc computer, radio, O2, Chair chute, enclosed trailer, Bendix King KX99 handheld radio with long range ground antenna, baro, camera. \$27,000. Claude Gosselin (514) 444-3450, c.gosselin@lanter.net

Jantar Std 2B, #1207, less than 400h, immaculate, no damage, refinished in '93, Avionic 720 radio/mike, Rico electronic vario with electronic TE, O2 panel mount, T&B, PZL vario, dust covers, HD battery, alum trailer. Asking US\$26,900. Paul Yardy (905) 863-5728 (W) or Paul.Yardy@nt.com

Jantar Std 1, encl trailer, Edoaire radio, Cambridge MKIV computer, tinted canopy, never broken. \$29,800. Greg Dwyer (306) 586-5493.

Std Cirrus, #22, about 1800 hours, excellent condition, O2, water ballast, final glide computer, parachute, ground handling kit, factory trailer. \$30,000 o.b.o. Stewart Baillie (613) 226-4595 or stewart.baillie@nrc.ca

Std Cirrus, CF-DMW, 660 h, never bent, excellent cond. Radair 360, A14A O2, 3 varios, gear warning, metal trailer. '77 Ford Club wagon, 3/4T 460CID, low miles, A/C, towing package, wired for ground mobile radio. Peravia and Winter baros, Radair 10s, Security 150 chute, etc, all unused for past 7 years. Prefer to sell as complete package. Monty Williams (604) 929-1749.

ASK-14 motorglider, damaged fuselage and canopy - wing/tail/trailer all in good cond. Either sell above or buy a good fuselage/canopy. Motor not required. Theo Hudec, ph/fx (250) 479-6991.

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

DG-202/17, 575h, like new, tinted canopy, Sage vario, M-Nav computer, Terra 720 radio, Security 250 chute, O2, Komet trailer. US\$32,000. Francisco Diaz (514) 355-6081 eves.

Ventus B 16.5, #88, 790h TT, very good cond, Winter vario, Bohli vario, Cambridge vario with CNav40 computer, Bohli compass, Dittel ART720 radio, chute, O2, encl Straub alum trailer. Contact Roland Niklaus (514) 694-6785.

Ventus B 16.5 CF-CYP, contest ready with Dittel radio, Zander flight computer/vario as well as a Cambridge and mechanical vario. Komet trailer and many extras including parachute and O2. US\$43,000. Hal Werneburg at (403) 686-6620, westechc@cadvision.com or Rick Zabrodski (403) 271-5123, rzabrods@acs.ucalgary.ca

Ventus B Masak winglets, tinted canopy, M Nav, Schuemann CV vario, Becker radio, Bohli, 5-point harness, electronic flap indicator, Garmin moving map GPS, dual batts, sheepskin cushions, chute, TP camera, O2 /mask/bailout bottle, Cobra trailer with one-man rigging system. Ground station with long range antenna, King handheld radio. Glider & trailer spares. Andrew (403) 435-4425.

Nimbus 2B, #156, C-GALA, 340h TT, very good cond, well instrumented, complete custom covers, encl trailer. US\$25,000. Dan (602) 954-6357. AZ

Nimbus-2, C-GAJM, 860h. Excellent condition. This is a super performer which loves to be taken cross-country. Factory trailer, full panel including radio, 2 varios, Cambridge computer, Mylar seals, wing and fuselage covers. \$35,000 obo. Mike Apps, (403) 436-9003 (H), (403) 435-7305 (W), email mapps@nofc.forestry.ca

Solaire Canada

Ed Hollestelle (519) 461-1464 p & fx

LX-20 The new IGC-approved GPS flight data recorder \$1995

LX-100 Basic audio vario with averager \$495

ATR720A 760 chan VHF with mounting tray and wiring harness \$1695

SHM1010 Boom mike and wiring (as installed by most glider manufacturers) \$150

LX-4000E S-RAM final glide computer or connects to any GPS (with NMEA output) or connects to LX-20 data recorder \$2995

LX-5000 The ultimate GPS/final glide computer system with moving map display and FAI data recorder \$5495

tow plane

1977 Bellanca Scout 8GCBC, 1455h tsn, CS prop, tow gear original equip. 6/10 in - 5/10 out. \$40,000. Doug Moore (250) 723-9385.

miscellaneous

Desperately need to replace a friend's copy of Jane's book of *Gliders and Sailplanes*. Must be in good condition, will pay any reasonable price. Andrew Parker, SOSA (416) 504-9455, fax (416) 504-9456 104170.2154@compuserve.com

Bohli compass (type 46-mk-1) \$200.00
Winter barograph with accessories \$475.00
All in mint condition. Prices non-negotiable and incl shipping in Canada. Rick Zabrodski, (403) 271-5123, fax (403) 225-1276 or email rzabrods@acs.ucalgary.ca

Varicalc vario \$375. Gilles Séguin (514) 377-5737.

CVS 50H Vario Cambridge, 10 knot scale with speed ring & ext on/off dual range (0.5/1) switch. A simple elec vario. *Newly overhauled*. \$180. **CPT 50MN Vario** Cambridge, 10 knot scale, triple range (0.5/1/2), dual sensitivity, TE adjust. No flask reqd. \$375. Cambridge **AV 10 Audio** external audio (no tone on down), plugs into either vario above. \$50. Tony Burton (403) 625-4563.

Trailer, encl alum with all rigging for SZD-55. Roof-top solar charging panels, excellent road handling, easily adaptable for other sailplanes. US\$4000 Paul Nelson (519) 821-0153.

EW barograph & DPU411 thermal printer. Printer portable and battery operated, both in excellent condition complete with manuals and auxiliary equipment. Half price bargain \$750. Don Wood (250) 658-8288, fax (250) 658-5538.

One-person glider assembly aid. No more help or heavy lifting needed. The "Wing Thing", \$600. Doug Girard (902) 462-0600.

Rocky Mountain Soaring Centre

is closing due to medical reasons. Selling all equipment and accessories. Aircraft for sale: Blanik, Ka6E, LS4a, Pawnee 235, Citabria 7GCBC. For a detailed list call Uwe Kleinhempel at (250) 344-6620, fax (250) 344-7933.

magazines

SOARING — the monthly journal of the Soaring Society of America. Subscriptions US\$43 second class. Credit cards accepted. Box E, Hobbs, NM 88241-7504. (505) 392-1177, fax (505) 392-8154. Email: 74521,116@CompuServe.com

NEW ZEALAND GLIDING KIWI — the bi-monthly journal of the New Zealand Gliding Association. Editor, John Roake. US\$32/year (seamail). Private Bag, Tauranga, NZ. Email: john@roake.gen.nz

SAILPLANE & GLIDING — the only authoritative British magazine devoted entirely to gliding. Bi-monthly. BGA, Kimberley House, Vaughan Way, Leicester, LE1 4SG, England. £16.50 per annum. fax 0116 251-5939.

AUSTRALIAN GLIDING — monthly journal of the Gliding Federation of Australia. US\$34.80 surface mail, airmail extra. Payable on an Australian bank, int. money order, Bankcard, Visa, Mastercard. Box 1650, GPO, Adelaide, South Australia 5001. fax (08) 410-4711. Email: AGEditor@gfa.on.net

return address:

Soaring Association of Canada
Suite 101 – 1090 Ambleside Drive
Ottawa, Ontario K2B 8G7



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17 John Brenton Drive
Dartmouth, NS B2X 2V5
(902) 434-1032

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16 Placae Valmont
Loraine, QC J6Z 3X8
(514) 621-4891

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820 des Grosseilliers
Boucherville, QC J4B 5S2
(514) 641-1766

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Gilles Boily
12235, Mgr Cooke
Quebec, QC G2M 2M5
(418) 843-8596

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(604) 589-0653 H
(604) 574-4141 B

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