



free flight • vol libre

5/96
Oct/Nov



Liaison



On July 27, I attended on everyone's behalf the event marking the 50th anniversary of the Montreal Soaring Council. That kind of longevity is quite an achievement for any kind of organization, let alone a voluntary not-for-profit sporting club. MSC has superb facilities and a nice fleet that is being up-graded and updated with Krosnos replacing the faithful 2-33s. What is most impressive about MSC has been its ability to retain its membership. As I circulated amongst the participants, current members, friends, and former members, I could not fail to notice the note on the name badges of the likes of Bernard Palfreeman, Gordon Hicks and *many* others: "Member since ... 1956, 1957, etc. If clubs have to recruit or perish, membership retention seems to have allowed MSC to flourish.

To president Mark Schneider and all the members of MSC, our best wishes for many many more years of prosperity and safe soaring.

We all should update ourselves on the flurry of activities around the airspace issue. There is more on that topic in this issue of *free flight*. Your zone director will have contacted your club president by now to evaluate the possible impact of the implementation of the 35nm TCA around 15 major airports in the country. Calgary is on the leading edge of this change that could be significantly damaging to many of our clubs. Please let the national office and the Airspace committee chairperson Bill Green know of any information relative to this situation. It is ironic that we have to fight for airspace in the largest country in the world with so little population!

At the upcoming AGM in Vancouver we will present for approval the new modernized SAC Procedures Manual. This document is being revised to make it easier to use and be in tune with the realities of the turbulent nineties. We will also propose a change to enhance representation on the board of directors. Ontario, with over 40% of SAC's membership, is represented by only one member. This situation has to be addressed.

Have a great fall and be on the lookout for continued safety.

La graine jetée par Jean Richard semble avoir portée fruit puisque ce mois-ci, nous avons un autre article en français. Et que ça continue, j'ose espérer retrouver Jean Richard dans les prochaines parutions de cette revue.

Comme je le disais plus haut, la situation quant aux changements affectant l'espace aérien est préoccupante et sera avec nous pour toujours. Il est donc essentiel que tous les clubs opérant en déca de 35 milles nautiques de Québec, Montréal ou Ottawa entreprennent de tisser des liens avec les gens qui effectuent le contrôle aérien car nous aurons à transiger avec eux dans l'avenir. Il serait bon de les inviter à visiter vos installations. Je parie que plusieurs d'entre eux ne connaissent pas notre sport et comment nous le pratiquons. Une visite et un vol de familiarisation aideront à la compréhension mutuelle.

Bons vols d'automne. Personnellement je compte aller à Baie St Paul voler avec nos amis de Québec lors du congé de l'Action de Grâce. Seules de pluies diluviennes m'ont empêché l'an dernier de faire le voyage avec une douzaine de mes amis de Champlain.

Pierre Pepin president

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Le journal de l'Association Canadienne de Vol à Voile

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Ray Richards soars in wave above
Hope, BC photo: Rick Matthews

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see the SAC home page – <http://www.pubnix.net/~rmacpher/sac.html>

the ONE TON pillow — Our airspace problem

Terry Southwood
CFI, Cu Nim Gliding Club

The situation By the time you read this, general aviation in Canada will have woken up to a whole new world. On October 10th, the new Canadian Air Regulations will have come into effect along with NavCan, the private corporation charged with (and charging for) the provision of air traffic services nationwide. And, at the airports of fifteen cities across the country, there is a new structure of controlled airspace that is over five times larger than it was the day before.

Background This new airspace structure was detailed in Aeronautical Information Circular 2/95, although its origins go back to 1988, when SAC responded negatively to the much smaller structure proposed at that time. The huge extent of the new structure seemed to create an attitude of disbelief, not just among us, but I think at Transport Canada as well! In any event, the general implementation of the structure was delayed, as was our response.

On the opening day of the 1996 National Contest in Red Deer, I found out that the new structure was no longer on hold, and would be in place across the country in October. Cu Nim would be severely affected, not only because we were well within the new 35 nm radius, but because Calgary's airspace is Class C — meaning that we would require clearance to enter an airspace having a general requirement for altitude encoding transponders. Since it was apparent that we were the only ones in SAC who were aware of this, it was obviously up to us to initiate a response.

Local response We decided that a response was required on more than one level. First, we would continue to negotiate with Transport Canada at the local level to obtain as big a slice of the airspace as we could get. Next, we needed allies, both inside and outside SAC, so we wanted to alert as many people as we could in the short time frame available. And finally, we felt that we needed to direct a letter-writing campaign to the highest level — the Minister of Transport himself. Transport Canada's initial offer locally was airspace to 3000 feet AGL! From this bleak beginning, we gradually progressed to an arrangement that will hopefully provide access to pretty much the same airspace we have always enjoyed. I say hopefully, because at the time of writing, such an agreement is neither in place nor guaranteed.

There have been two key points favouring us in the discussions so far. The new Air Regulations exempt gliders from having to carry transponders in Class C and D airspace, and this appears to have given us right of access. Secondly, Transport Canada's concerns about traffic separation appear to have been alleviated by the discovery that gliders, even fibreglass gliders, can be picked up on the radar's primary return, which is available to the controllers at the flick of a switch.

To satisfy basic training needs, we have been given a Class F alert area to 4300 feet AGL for 4 nm around the airfield. This will appear on IFR charts and finally (after more than 25 years) alert incoming airliners to our soaring activity. To accommodate local and cross-country soaring, four zones have been proposed which could be opened in flight, potentially to 12,500 feet (8800 AGL), the same as we have always had. We are told that further access will be available upon request from individual gliders. It is planned to finalize these local procedures at a meeting on 26 September.

SAC level On the next level of response, we immediately advised our provincial SAC director, alerted everyone at the Nationals, and addressed the issue at the AGM of the Canadian Advanced Soaring group. Following the Nationals, we continued to spread the word throughout the summer, which is a difficult time period for most people due to their holiday, family and flying commitments. I was happy to see Pierre Pepin pick up the ball at the national level.

TC level With the National contest, the Western Instructors Course and summer Cowley all vying for my time, the form letter to the Minister wasn't ready until after mid-August. With help, a reasoned and well thought-out letter of concern was drafted for use by all club members. We directed our primary concern at the ⇒ p16



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.

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

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Letters & Opinions

BLANIK L-13 RELEASE PROBLEM

Last year while taking a friend for a flight in a Blanik L-13 I had trouble releasing the rope at 2000 feet. My friend is a neophyte power pilot, so when he was getting settled into the front seat he asked where he should put his hands and feet to stay clear of the controls. He placed his feet on the bulkheads just outside of the rudder pedals. At release height I pulled the release handle and nothing happened. I pulled it several more times to no avail. Eventually the tow-pilot released the rope from the towplane. I was then finally able to release the rope from the glider.

Once on the ground we opened up the nose cone to look at the release mechanism. At this time my friend mentioned that he had felt something hitting his left foot while I was trying to release the rope. We had him sit in the glider again and place his feet on the bulkhead. We found that when the release handle was pulled, a bellcrank connected to the torque tube that opens the release was being jammed by his foot.

So to all the Blanik operators out there, make sure that your passengers either place their feet flat on the floor, or on the rudder pedals, so as to avoid the same situation I encountered.

Dave Springford

Readers may be interested to know that the cause of Dave's non-release also has a reverse twist. There have been instances where the passenger in the front seat has also caused a premature release by kicking the the same bellcrank! Tony

TROUBLING THOUGHTS

Three issues came to my notice during my recent visit to your neck of the woods. First, I saw pictures of the Ventus wreck at the Nationals — it was a very sad sight. It occurred to me at once that such radical and life-threatening structural failure of the forward fuselage of a modern sailplane is just unacceptable (given the relatively low height at which the pilot lost control). It is common for the drivers of racing cars to survive a 200 mile per hour collision with retaining walls, and all we have seen from sailplane builders is the inclusion of some Kevlar! They can do much better.

Our representative to the FAI should demand a serious drive to have builders provide a cage for the pilot with an extension of the fuselage nose cone to protect feet and ankles. The wing spar should also be designed to allow the tips to come forward to prevent the pilot being driven into the ground by the wing spar; ie. the wing pin

should be vertical. I'm sure we will have complaints that costs will go up, weights will go up, performance will go down, etc. Take no notice — the next broken pilot may be you or me. This will be no help to present owners, of course, the only way here is avoidance.

The discussion on the airspace at Cu Nim was urgent and pressing, not only for that club, but also for us all. The thirty-five mile grab around many airports by TC is no solution to the midair potential. It is much more important to have all pilots look out of the window on approach to a major field. To have a notice on ATIS when gliding activity is ongoing is a much safer way to fly. We all need to take the political route. Nothing gets a politician's attention like a list of callers complaining about some bureaucrat beating up on a defenseless public, especially those rich enough to own a sailplane. If we do nothing, we will deserve to be grovelling about below 2200 agl over our fields. So, phone, write, fax and email, ie. be a damn nuisance.

My final observation is that in the last three months I have seen three pilots signal ready with their spoilers open and, when reminded by the wing runner, have closed them. Also, I saw one pilot walk away from a glider he had been rigging with one aileron rod unattached. Unless we develop consistent flying habits, we will at some time or other be presented with undesirable problems. This applies to beginner and expert alike.

Dick Vine

IT'S SAC TROPHY TIME

It's that time of year: time to send in your applications for SAC flight trophies. They are the *Canadair* — best five flights of the year; *BAIC* — best flight of the year; "200" — five best flights by a pilot with less than 200 hours as P1 at the beginning of the year; and the *Stachow* — the greatest altitude flight.

Rules for verifying your performance flights haven't changed. You need OO certification of flight declarations and turnpoint verification. Barograms are only needed for altitude flights. The form explains the scoring system. It's based on a point per km with a number of bonus factors (*this year the speed bonus has been eliminated*), and has a formula for converting height gain into trophy points. The SAC office, *free flight*, or I will send you entry forms on request.

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A Bluenoser 'experiences' Cowley

thermals, wave(?), rotor(!) & landout

Stewart Baker
Bluenose Soaring

THIS WAS MY FIRST VISIT to an aerotow site and the first to a mountain region, being a novice with no experience of retractable wheels, flaps or aerotow (I fly a Ka6E on winch launch at home in Nova Scotia). There was plenty for me to see and learn.

Wednesday, 31 July I arrived just after 1300 hours to see some towering cu over the valley and lenticular clouds developing over Centre Peak of the Livingstone Range (in the photo opposite). I was soon introduced to all participants and spent the next couple of hours setting up my camper. Returning to the flightline around 1700 hours, I was asked if I wanted to take the next flight and eagerly anticipated my first flight in a Blanik and my first aerotow.

The process of getting tow tickets etc. was new to me, and I was graciously loaned a ticket with a "wimpy" sticker which would provide an additional 1000 feet for a tow to 3000 agl. The tow was completed by the instructor with me following through and I took control after release at 7000 feet msl. There was some small amount of thermal activity but, with my unfamiliarity with the ship and the use of flaps coupled with my limited experience, I was unable to make any use of the available lift. We arrived back at runway 21 and I landed the Blanik.

The rest of the evening was spent assisting with the returning aircraft and tying down for the evening. I was constantly asking, "What plane is this?" as a myriad of new shapes was a delight to me. I was stumped by one of them until being told the wings are from a PIK20, the tail is from a Ventus, and the fuselage is homemade. There were another such combinations, and these were truly superb looking aircraft despite their mixed heritage. I was also surprised by the number of homebuilts and the very high standard of professional finish on them.

Thursday I officially register and purchase tow tickets, "wimpy" stickers, glider rental tickets etc.

The day started with light westerly winds and a weather report that predicted relatively stable conditions. By noon I was in the air again in the Blanik with CFI Terry Southwood. This time I took control at 1000 feet and flew for the remainder of the flight.

No sooner had we released at 2000 and called cable away, we were in light constant lift taking us to 9300 feet. For the next hour I spent a most enjoyable time between 8000 and 9500 feet touring around the immediate vicinity of the Cowley airstrip.

I received an excellent briefing on the local terrain from the Waterton Reservoir to the Porcupine Hills and the Crowsnest Pass, the Frank Slide, and the Livingstone Range. With Centre Peak rising to 8300 feet, we flew towards the mountains but had to turn back at 8000 feet only to run into another blue thermal — they were spouting all over. The scenery was breathtaking with the wide expanse of prairie punctuated with the Porcupine Hills to the east, the Oldman Reservoir to the south, and the dramatic expanse of the majestic Livingstone Range to the west. All this against the azure crystal clear backdrop of the Alberta sky on a cloudless day. Little did I know that tomorrow I would be getting an even more dramatic view of the range at close quarters.

Friday, 2 August I rose early after having spent a pleasurable social evening with a number of my fellow campers and glider enthusiasts.

The day opened cool and partially overcast with altostratus cloud as a precursor to the low that was moving in from British Columbia. The cloud was slowly creeping up from the south but the surface wind was out of the southsouthwest at about 15 knots. A lower layer of stratus was forming then disintegrating immediately above the field. To the west I watched with interest as slowly a series of six small parallel lenticular clouds formed directly above the Crowsnest Pass. My mind turned over the possibility that perhaps this was the day for a wave flight as the wind veered a little then backed again. Maybe it was just the optimistic pilot's weather prediction overriding reality as I willed the wind to increase and swing towards the optimum direction.

The bright blue expanse to the west over the pass was now devoid of the lenticulars but I was told that the wispy clouds to the east of Centre Peak were usually caused by rotor.

The Blaniks were out on the flightline and I had been watching in the direction of Centre Peak with keen interest for any signs that might give further hope to the wistful notion of wave. My turn to fly ar-

rived at 1215 and I asked the instructor what the best plan would be. "Two tickets to Centre Peak — let's test the wave", was the reply.

With the relevant instructions written on the tickets our flight began. At 800 feet the instructor handed control to me. The initial part of the flight was fairly smooth — this was not to be for long. As we flew towards the mountains the climb rate became sluggish and the turbulence increased slowly. There were frequent handovers of control back to the instructor as the towplane traced non-standard arcs across the horizon. Turbulence increased and I pulled my straps as tight as possible. "This is not bad yet, what we are looking for is the rotor turbulence", came the reassuring comment from the rear seat. This was immediately followed by a violent wrenching thrust upwards and the inevitable greater downward bang as I left the seat despite the best efforts at a tight harness.

"Yahoo", was the flight instruction from the rear seat, "this is it — we need more of that and we are in." The large tilted form of the earth's platelet that formed the east face of the Livingstone Range appeared remarkable close. This, coupled with a vario reading pegged at 10 down and the gyrations of the towplane, lead me to instantly believe that this was *not* going to be a training flight — perhaps that should read training *fright*. I've experienced this type of turbulence in spring thermals in Nova Scotia when there is a strong wind but never expected to be engaged in such a flight while connected to the tail of another aircraft.

"Yaawaaahoooo", came the second flight instruction from the back seat in 'Albertan' as we hit another whiplash-like turbulent pocket of air. The vario became confused and jumped from pegged down to pegged up. The altimeter shook off its lethargy and spun its way past 6500. Within thirty seconds it relapsed into a sickening downward spiral as it uncoiled the last five hundred feet in half the time it took to gain it. We had been on tow now for approximately eighteen minutes and were positioned just behind Centre Peak, our ground clearance was little more than 1700 feet, and the turbulence and downdrafts were making climbing on tow a slow process.

We proceeded on a northerly heading in the lee of the range, yooying up and down until reaching a point some three miles north



Tony Burton

of Centre Peak and a height of 7500 feet (this provided a ground clearance of about 2000 feet). At this point we entered another area of smooth lift with the vario up on the stop. The towplane lurched and dropped to the right and the instructor pulled the release. (I was not sure if he released because of the lift or because of being too far out-of-position. Later the towpilot reported that he was not aware of us leaving.)

The instructor, who was now doing all the flying due to the turbulence and general flight situation, made a turn to starboard, climbing with the vario against the stop. The situation was shortlived with the following descent pegged again with the attendant turbulence. Then I received my third flight information briefing and confirmed my own impressions — “This is not a good situation.” Another quick 180 turn placed us back in lift but as before we were soon out of it and in awful off-scale sink.

“We are going into that field, there, off the nose”, came the next communication from behind. The towplane called to ask if we were okay. There was only one mike on board in the rear cockpit and the turbulence, inhospitable terrain, and rapid sink precluded any time to answer.

Landing checks are completed by the instructor and I confirm wheel down and locked. I report that the field in question has hay bales in it and at the same time the

reply comes back, “I see them but there is also a power line across it. The one next to it has been ploughed and looks good — there is a hill and a power line, but we can make it in.”

I replied that another field a little to the south may offer a better landing but this received no response.

By this time we’re over the field at about 600 feet and picked up some lift from the 300 foot hill over the final turn for the field. Two S-turns later we are sinking again and on final down the hillside. The power lines loom high on the approach and I hope to God that the quiet air we are presently in goes all the way to the ground. It’s nip and tuck on going over or under the wires.

“Are you ready for this,” comes from the back. I think, “Is there an option?”

We cross the wires with fifty feet to spare, and sideslip and spoiler in to the grassy pasture. The grass turns out to be over five feet tall in places and is racing past the canopy. The field is smooth enough and we come to a stop in the middle in good shape. We get out and I shake the instructor’s hand and say “thank you” with considerable conviction. This completed my 203rd flight, 6th land out, and 3rd aerotow.

There was no one home at the farmhouse so we set off along the road to the next and

within two minutes a kind lady stopped and drove us all the way back to Cowley. With five stalwart helpers, we returned to Aspen Valley to retrieve the glider from what turned out to be Rosie Statler’s pasture. She was unaware that it was there behind the house after having returned from feeding a haying crew, and was a little startled to look up from cutting her lawn to find a group of pilots asking to have their airplane back.

I left Cowley that evening suffering from hay fever induced red eyes and a rash on my arms caused while working in the long grass retrieving the glider. As I pull out I think that with the grace of God I will be back, and head for Calgary, antihistamine, and then Golden, Hope and Pemberton. My sincere thanks to all those people who made the three day visit a truly excellent gliding experience.

editor’s note: There are times at Cowley when wave conditions and signs look favourable (and some wave may have been in place earlier in the day) but all one finds in the valley is severely disturbed airflow in the lee of the range. It is easily mistaken for rotor turbulence while on tow but wave is never found and the unfortunate pilot is slapped out of the sky after release. A landing is imminent if a retreat eastwards is not prompt, especially if one is flying a lower performance ship. Wry congratulations to Stewart and Darwin for safely performing the camp’s “duty landout” in the Blanik.

A rookie at the Nats

Gerald Ince

Cu Nim Gliding Club

MY PARTNER, Keith Hay, and I decided to take advantage of the fact that the 1996 Nationals were in Alberta to team-fly our Mini-Nimbus "54" in the Sports class. My personal goals in entering the Nationals were twofold. First, complete the contest without damaging the airplane. Second, try to learn something from the experienced competitors who would be in Red Deer for the contest.

The weather had an impact on the Nationals of course; rain washed out the practise days and the first scheduled contest day. Conditions improved over the next several days leading to some good soaring. Unfortunately, the last few contest days were scrubbed. Although it was hot and sunny, a strong inversion meant conditions were not conducive to cross-country soaring, so 54 flew five days; Keith was pilot-in-command for two and I was at the controls for three. What follows are my impressions as a low-time contest pilot, and a Nationals rookie.

Arrival

For me the Nationals began with some very interesting hangar flying — getting a chance to have a look at some of the newer hardware that we don't see around our club. Discus, LS4, LS6b, SZD-55 — all new types for me. Competitors also brought all sorts of neat stuff in the form of tow bars, wheeled wing dollies, and solo rigging systems. Having never flown with water, the morning ritual of ballasting the gliders was of great interest to me. Everyone had their own system using some combination of bags, buckets, water beds, hoses, funnels and clamps. I began to wonder if I was at some type of S&M trade show by mistake!

Keith and I had divided the flying days to try to minimize the impact of the contest on our jobs, our family vacations and our marriages. Keith had managed only one flight by the time I arrived in Red Deer. It was a weak day on which thirteen of thirty landed out on a 152.6 kilometre triangle. Keith had completed the task and Team 54 was standing in eighth place. I congratulated Keith on his flight, but the main topic of conversation that evening was the unfortunate

accident that resulted in the destruction of a Ventus and injuries to the pilot. This was a sobering reminder of the risks of contest flying. I didn't sleep well the first night.

Beginner's luck

Friday, June 28 Today is my first flying day, and I've got a mild case of the jitters. I've never flown out of an active airport and my head is swimming with the details of launch procedures, radio procedures, the finish direction, task information, et al. Once the sniffer was able to stick, the entire field of thirty gliders was airborne in little more than half an hour. I had forgotten how stressful the prestart gaggle can be at a contest. Trying to maximize your rate of climb while at the same time avoiding potential midair collisions is a challenge that has to be unique in this sport.

The task for today was a three hour PST. I was eager to start as soon as the traffic allowed and got my picture at 14:31. Based on a conversation with another Cu Nim pilot I had decided to head downwind (southeast) on the first leg, perhaps to Wimborne. This would, in theory, allow me to fly the upwind leg in the stronger conditions anticipated later.

Headed in the same direction was Victor Romeo (VR) being chased by Charlie Lima (CL), the Twin Astir. The chaos of the start behind me, I turned on the GPS and entered "GO WIMB" on the keypad. What came back was not very useful. My partner had obviously been experimenting with the GPS! It no longer displayed the steering commands I expected, like "TURN RIGHT 14 DEGREES." Instead it proudly displayed the "ROUTE" function that would take me to each of the three turnpoints in the previous day's speed task. No problem, I thought, I'll just go to the menu and press the "MORE" key a few times. This did nothing helpful of course. Damn technology!

While I struggled with the GPS I had the benefit of using VR and CL to mark the lift. Twenty minutes into the flight I began to think that I'm going to get lost — the GPS is useless and I've already covered enough ground that it's going to be difficult to pinpoint my position on the map. All of this wonderful technology, accurate to within 300 feet anywhere on the planet, and it's completely useless because I haven't read the manual. As this was a contest, I couldn't radio my competitors and ask them "Um, where are we?" Besides, men don't ask for directions, right?

At this point I had passed the Twin Astir and was pursuing VR who had stopped to top up in a thermal. Finally, I got the right combination of buttons on the GPS and the steering command came to life. For several miles I had been running down a cloudstreet that continued on as far as the eye could see. The GPS suggested that I was somewhat off course for Wimborne, and would have to leave this cloudstreet soon. I punched in a few alternate turnpoints to see which one was most closely aligned with the heading I was flying. The answer

was Drumheller — 110.8 km from Red Deer. This turnpoint seemed too ambitious for the day, and so I selected Three Hills, the next best candidate. VR was about two miles east and several hundred feet higher, still circling. I pushed on, alone now, flying between 5500 and 7000 feet (2500–4000 agl), stopping to thermal a total of five or six times. I arrived

at Three Hills in just under an hour, averaging about 65 km/h on the first leg.

With two hours left I wanted to pick up one more turnpoint before heading back upwind. There was a nice looking series of clouds heading off to the southwest. This looked good for Acme, 28.1 kilometres away. My impression was that the wind was becoming more northerly, and so heading west would hopefully allow me to continue using the cloudstreets on the way back.

The cu were not working as consistently now and one third of the way to Acme I was down to release height. Over a feedlot full of cattle I enjoyed a painfully slow climb back to 6300 feet. I was back down to release height before long. Twice, I spent a considerable amount of time digging myself out of a hole. I began to think that this leg was a big mistake, as I imagined everyone else booming along on course while I was going around in circles.

As my watch approached 16:00 Acme was within sight and the sky was starting to get very blue. I detoured towards a large cloud just north of the town site that was still looking good. This turned out to be a reasonable thermal and I was able to climb in it for several minutes. The added bonus was that I was drifting south, right into position for the turnpoint photo! I got the picture at 16:05 and headed for home.

At 79.1 kilometres, the trip back to Red Deer was to be the longest leg of the flight. The clouds were breaking apart and I realized that this was going to be an upwind

Highs

High speed dolphin flight with some of Canada's best pilots.

Lows

Retrieves – day after day after day.

the Verdict

Learned more about cross-country flying in 3 days than in the past 3 seasons.

struggle in dying lift. The first time I checked the final glide calculator I was 4000 feet below glide slope. Hopeless!

Finding few bubbles of lift worth attempting a turn, I bumped along at 60 knots, weaving around beneath the cloud scraps. I stopped to thermal only about four times on this leg. The good news was that I was able to find extensive areas of zero sink, sometimes even 50 feet a minute up. I kept going and going, like the Eveready bunny, maintaining altitude for several miles as I ran upwind on invisible thermal streets. From time to time I lost altitude in 2–300 foot chunks as I fell off my street and had to make a slight turn to find another one.

What seemed like an impossible task shortly after leaving Acme started to show a glimmer of hope. I continued to negotiate with the final glide computer every few miles. Twenty nautical miles out I contacted a thermal and climbed to 6400 feet. "This just might work", I told myself. I decided to try for a straight-in approach on Runway 29 to minimize the required altitude. Only 400 feet below glide slope now.

Contest ground began to announce the first finishers and I wondered if I would make it back in time — I didn't dare speed up. There wasn't much to do in the cockpit now, and I tiptoed along, nervously watching both the miles remaining and my altitude draining. Finally, about ten miles out, I caught up to the glide slope and I added a couple knots of airspeed to celebrate.

Five miles out I gave Red Deer radio a call to let them know I was coming — my intentions were not yet clear as I was still unsure if I would have enough altitude for a circuit. A very large cu just southeast of the airport provided a four knot climb while flying straight ahead at 70 knots. Now armed with plenty of altitude, I decided to head slightly north to hook the gate and perform a flying finish. Nose down to 100 knots! I heard, "good finish 54", over the radio as I crossed the finish line at 17:25, with close to 1000 feet of altitude in reserve, and just a few minutes remaining.

I completed the 174.5 kilometre task at an average speed of 61.0 km/h. Later that evening I couldn't have been more surprised to find that this flight had won the day in Sports class. There is obviously a degree of luck involved in this sport, and I had more than my share on this day. I was lucky to make it home, on time, on a day when most of the Sports class landed out. The final leg was memorable in that, although the conditions were blue with dying lift, streeting was still occurring and I was able to bump along until finally catching up to the glide slope. I maintained a reasonable speed on the leg not by flying fast, but by flying straight ahead.

Learning the hard way

Saturday, June 29 Yesterday's result moved Team 54 into first place in the Sports class, and several pilots had very graciously con-

gratulated me on the win. I was careful to make the point that it was just beginner's luck. (I proved this in short order on day 2, as I needed a relight after falling out on the first attempt.)

The weatherman became less and less optimistic as launch time approached. The task was eventually reduced to an out and return to Big Valley, 77.7 kilometres to the east. Due to the relight I had moved from the front of the grid to the very back and was apprehensive about starting a cross-country flight so late in the day. I climbed as quickly as I could and I started on course at 15:53.

There was 2–3 knot lift to 7000 feet, and I headed out north of the course line to take advantage of the cu that were forming there. I was angry with myself for falling out and pushed forward aggressively past several other gliders heading in the same direction. This also meant that I was also cruising at a lower altitude, and by the time I reached Pine Lake, about a third the distance to Big Valley, my forward progress came to a halt. Landable fields were scarce and every low spot in the undulating terrain was filled with water. I got low and backtracked to join two other gliders climbing in a thermal.

Within minutes our gaggle turned into a swarm as several other sailplanes caught up and joined the fray. The gaggle grew and grew, and by the time there were twenty aircraft in the same thermal, it was all I could do to maintain proper separation. This was insane, I thought to myself. I kept wishing I had a video camera on board as the footage would have been spectacular — no problem reading contest letters here. Although conditions weren't great the gaggle was making steady progress in the 2–3 knot lift. It is striking how much the odds of finding lift improve when a group of pilots are working together. We moved forward like a swarm of bees, running more or less in single file until someone found lift, and then stacking up again in a swirling mass. A few tense moments occurred at one point as the gliders in the bottom of the gaggle were found to be turning in the opposite direction from those at the top, and several of us in the middle decided to bail out.

On this leg I did no navigation and didn't locate a single thermal by myself. I didn't have to look at a map to determine my course, I played follow the leader. I didn't look at my vario to determine where the strongest lift was, I could see the difference in climb rates just outside my canopy. The rest of the way to the turnpoint, I concentrated on two things: maximizing my climb rate in each thermal and staying out of people's way. The gaggle regrouped just before the turnpoint and more tense moments ensued as pilots popped in and out of the thermal to take turnpoint photos. I got my picture of Big Valley at 17:02.

Looking back towards Red Deer a layer of cirrus was cutting off the sunlight, and the only remaining cu were many miles to the

north. The gaggle headed that way, and I thought to myself that there was no hope of getting there. I took a more direct course, fanning out a little from the pack. I kept a close eye on the gaggle flying a couple of miles north. Gliding in a straight line at best L/D, the other gliders seemed to be losing altitude more quickly than I was. I made a turn or two in the odd bump of lift, but nothing that would allow a climb. The pack continued to head north, and I became more comfortable with my decision. One moment they were there, twenty specks just below the horizon, the next moment they were gone.

Now on a final glide that was obviously going to end well short of Red Deer, I began to think of old episodes of "Wild Kingdom" in which the young and the infirm become separated from the herd and are picked off by the marauding wolves. A little more than a third of the way back to Red Deer I began picking landing fields. I spotted a good looking field and used up several hundred feet looking at the approach from several angles. It's at the intersection of two major highways, and there is a gate right in the middle. Landing into wind would be uphill but at least the furrows were plowed in the right direction. At 800 feet I'm just about to roll out into my downwind when the vario begins to beep. I centre and grind around for a few turns. Slowly at first, I climb out, eventually reaching 1600 feet, which at the time seems like a lot of altitude. This thermal dies, and I continue east over heavily treed land to what looks like another landing field four or five sections ahead.

The vario had gone mute by the time I arrived, I decided to go back to the field I had chosen previously. Making a 180, I flew straight onto base and then turned final to a landing on the top of a small rise. I don't remember touching the wheel brake, but the tail slams down after a very short rollout. I climb out and examine the airplane; no damage. The main gear has plowed a furrow 75 paces long in the muddy soil, and a big ball of earth is still attached to the front of the wheel. It's 18:10, and I call Keith on the cell phone — "better bring a strong rope and your four wheel drive."

Keith and I arrived back in camp to find ground crew watching videos in the contest office where the results were already posted. Nine of twenty-eight gliders made it back, none in Sports class. I am happy to see my 112.5 kilometres is good enough for fourth place on the day, but I can't help noticing the contest letters of the 15m pilots who did make it home. Sierra Tango, Two Whisky, Alpha Tango, Zulu One — I was right with them at Big Valley. I make a mental note to myself: "never, ever lose the gaggle on a blue day."

You should try being the crew!

Sunday, June 30 Keith is flying today and the forecast is good, except for the possible late arrival of the dreaded cirrus. A 202.2 kilometre triangle to Donald and Bashaw

was called for the Sports class. Our class launched last today, and Keith was one of the latest to start. Shortly after 14:00 the cirrus arrives over the field and it is so solid that Red Deer is covered by shade. "I'll be surprised if anyone makes it back today", I tell a spectator out for a Sunday drive. I head back to the campground to make lunch and wash the breakfast dishes.

When you are crewing it's surprising how little free time there is between the launch and the finish. For the pilot, each minute of the task is memorable; for the crew the time slips by unaccountably. Gather everything up from the start line, straighten out the camper, drop by the hangar and the time is gone. Walking across the tarmac, someone mentions that Keith has radioed he is landing out. I head over to the flying club to get the details.

Information is sketchy as Keith has not phoned in yet, but I decided to hitch up the trailer and head off with cell phone in hand. When Keith finally calls he has put a few more kilometres behind him and landed out near Mirror. Luckily I have taken the right road to get there. The terrain is rolling, and when I pulled up on the side of the highway I am not surprised to find 54 perched near the top of a fairly steep hill. Keith has done a superb job of landing out in a very tough field. The only problem would appear to be getting the glider back down, without it running away on us. As it turns out, the ground is so soft that we have to disconnect the trailer and pull the glider down the hill with the car. I have visions of explaining to my insurance agent how I got rear ended — by my airplane!

Keith logged 143.0 kilometres on the day, and likely would have made it back if not for the late start. Team 54 finished ninth, and was still in fourth place overall. Back at the campground, the strain was starting to show, particularly in the Sports class, where daily landouts and retrieves were wearing down pilots and crews.

Back into the fray

Monday, July 1 Three contest days under my belt, and I'm starting to think like a competitor. Sitting in fourth place, it was apparent that to move up in the field I was going to have to do something, well, big. The Mini's relatively low handicap meant that I couldn't score well while flying in a gaggle with the Sports class. In order to beat my handicap, I would have to fly average speeds in line with those of the 15m and Standard class pilots.

With this in mind, I hatched a plan. Sports class was to launch first on a four hour PST; the contest committee had called a 288.8 kilometre triangle for 15m/Std class. My strategy was to attempt to fly the same task set for the other two classes. I would head out on course knowing that, before long, sixteen aircraft would be overtaking me. If the classes came in separate gaggles I would have two chances to give chase. I hoped to be able to keep up to the 15m/Std class

pilots at least until the second leg. If I was unable to keep up I planned to cut the corner off the triangle and substitute Acme as the second turnpoint. This would vector me into position to chase the pack again on their leg home from Drumheller to Red Deer. By flying with a gaggle of newer planes and better pilots, I hoped to place well in my own class. Did I have any reservations about a strategy that some people might feel amounts to little more than leeching? Of course, but I was here to learn, right?

I started at 14:12 and headed out several miles north of my intended course line, following a series of widely spaced cu. A particularly good one had formed over a natural gas processing facility east of Red Deer. Hearing the reports of massive lift over the Joffre plant earlier in the week, I headed straight for it. Sure enough, I encountered a strong thermal and climbed back up to cloudbase. I pushed further east, at 70 knots or so, and had a good look around for other aircraft. Contest Ground had called the start gate open for the remaining classes, and competitors had been radioing in their start times for several minutes. Several miles to the south and several thousand feet lower, I saw ZZ (Jim Carpenter) heading for Stettler with CL in pursuit. Like a fighter hiding in the sun, I pushed the nose down and joined the chase.

On the first leg of this flight I received the greatest lesson in dolphin flying I have ever had. ZZ was the teacher, and I was the keener student sitting in the front row seat. Cloudbase was 6000 feet agl, and the large cu were evenly spaced with fluffy tops and flat, dirty bottoms. This was soaring as per Reichmann's book: flying speed to fly, pulling up in the weaker lift, stopping to thermal only when the vario indicated 5 knots or more. From my vantage point above and behind the Discus I was able to observe Jim's search techniques and where he lost or gained altitude. We performed zero "g" pushovers and two "g" pull-ups. The Discus disappeared from view for a moment as it became a thin white sliver rocketing away from me, and then suddenly reappeared as it pulled up steeply and the entire planform of the aircraft came into view. At times I wondered what was keeping his wings on. We crossed a large blue hole at 80 knots and made climbing turns in the strong lift on the other side. It was, in a word, glorious.

Although I couldn't keep up to the fully loaded Discus in a straight line, the lightly loaded Mini was able to outclimb ZZ. By avoiding the sink Jim was finding from time to time I managed to stay a mile or two behind while maintaining a slight altitude advantage. ZZ arrived at Stettler first, and stopped to thermal right over the town. The turnpoint was on the east side, so I decided to get my picture while the Discus marked the lift. I passed directly below ZZ and WHAM! seven knots on the vario, the best so far today. I got my photo at 15:03 and doubled back to climb. 81.7 kilometres to Stettler in 51 minutes — considering my

detour to the north, probably closer to 100 kilometres actually flown. This was by far the fastest leg in my short career.

ZZ reached cloudbase first and exited for the turnpoint photo; I continued to climb while looking over the map. Navigation to Drumheller was pretty straightforward; follow the highway south in a straight line. Trouble was, there were no clouds along the route. ZZ headed southwest after taking his photo; I headed directly for Drumheller. I was not concerned about the divergence in our paths as there were only one or two clouds along the course line, and they were directly ahead of me. On reaching the last cloud before the big blue hole, I topped up and took a look around for ZZ. He was nowhere to be seen. I searched the sky above, below, in all directions for any sign of ZZ. He was gone.

Confident that a large pack of gliders was just a few minutes behind me, I headed down the highway at 70 knots, hoping to stumble into something in the blue. I flew ahead for several minutes in smooth air, slowing to 65 and then to 60 knots as my altitude drained away. Just north of Big Valley I was down to release height. As I had been here before and was familiar with the turnpoint, I got a picture as an insurance policy in case I had to turn for home. Flying along the riverbank, I found a thermal and slowly climbed back up to 7500 feet.

As I circled I could see the sky behind me was filling in with cu. Before long, cu began to pop in the sky ahead and I was able to make some progress down the course line once again. I was surprised that the gaggle hadn't caught me yet, thinking somewhat smugly that the first leg must have been faster than I thought. The distinctive riverbanks of Drumheller came into view in the distance, and I redoubled my efforts — concentrate on speed to fly, maximize climb rate, don't move the controls unless absolutely necessary. I approached a bridge that I thought was the photo target, but it didn't look at all like the one in the book. I spent a few precious minutes confirming the latitude and longitude in the turnpoint book with my position on the GPS. Everything checked out. I flipped the map around a couple of times, and then it hit me. I looked out the right side of the canopy, at another bridge that was the real target. I made a 180 degree turn and got my photo at 16:43.

Looking back towards Red Deer there were two large, well-spaced cu nearby; other than that, it was blue. 110.8 kilometres to home; time remaining: one and a half hours. The clock was approaching five and a layer of thickening cirrus was moving in from the west. See a pattern developing here? Things were dying and I needed help fast. Where were the other contestants? I searched every sector of the sky. Did 16 other gliders somehow slip by unnoticed? I topped up to 9000 feet before leaving. Luckily, a slight tailwind, 5 knots or so. I headed off into the calm air with the MacCready set for three knots, then two knots, then one. ➔ p20

the Dark side of competition



joy of grinding the other fellow's face, which is what I know motivates the top guns. We go for a soaring holiday in which we get what many of us don't get at our home airfield — organized launches, expert weather forecasts, intelligent task-setting and, best of all, lots of thermals marked by pilots better than ourselves. We peasants keep the contest from losing money and give the real pilots somebody to triumph over.

The complete cads are at the top

The real problem nowadays — and here I would like an ominous rumble of bass fiddles like the music in *Jaws* — is the behaviour of top rate pilots to each other in the world at large. I once had an angry letter from a friend in another country who says he was robbed of first place in his National Championships by blatant leeching. In other words he was looted, pillaged (and the rest) not by third-raters but by other highly competent pilots. And I know the same has happened in World Championships. These days it's not the unwashed peasants who bushwhack the nobility, but the princes of soaring. No wonder Hans-Werner Grosse has turned his back on such shenanigans.

It matters not how you play the game, but whether you get the other fellow

Here is a lovely (if that's the right word) example of the modern competition mentality. In a foreign Nationals some while ago they set the first ever 1000 kilometre task set in any country. Imagine the excitement! You might think they all would have set off on the very first thermal of the day to make sure they had any possibility of getting round. You would be wrong. The peasants and those in old gliders and the other no-hopers started early, but the experts, the only ones with a real chance — they indulged in gamesmanship, making dummy starts, then coming back for another go and generally fooling around watching each other. Not surprisingly, nobody got around. The top pilots ran out of daylight, falling short by just around the amount of time they had wasted before the start.

When I heard of this awful exhibition I said to a senior competition pilot, "How stupid of them all!" — and he went quite mad. "Don't you see that it's perfectly intelligent behaviour? It doesn't matter if everybody ends up in crocodile-infested swamps in the pitch dark and takes three days to get home. So long as your tactics result in the other guy getting fewer points, you have flown brilliantly. That is what competition flying is all about!"

All I could say was, "Pass me a bucket, I think I'm going to throw up". All the same, Platypus loves competitions, despite the way they bring out the worst in human nature.

(Funny, the spell-checker says, "Delete *despite*, replace with *precisely because of*." This damn computer is getting ideas above its station. What does the thing think it is, an editor?) ❖

"Platypus"

from *Sailplane & Gliding*

IN GLIDING it is the passion not only for openness but for unaided individual achievement that is very American. In my first soaring contest in the USA I heard one pilot innocently say, "I'm at Sweetwater and doing fine", and a voice boomed out of the sky which could have been God's, rebuking the pilot for giving out information that might help some contestants to the disadvantage of others. I was impressed by this sportsmanlike discipline and the blessed radio silence that is the result (the chatter during a British competition is unbearable, but I can't bring myself to switch off in case I miss something tactically useful), but I also pondered, "Is this the way to produce World Champions for the 21st century?"

One disconcerting moment for me in that same first US competition was when we were all struggling halfway down the mountainous first leg of a triangle in weak blue thermals, and suddenly it was announced "the Contest Committee have unanimously agreed to change the task to a POST." Of course I had not read the rules for a POST (pilot selected task, loathed by us Europeans as far too chancy, because you don't know whom to follow), thinking that if one were announced I would have twenty minutes or so on the ground to get up to date with the rule book. It turned out that the Contest Committee then lit off in six different directions. Bereft of ideas, I pressed on with the assigned task and ended up soon after in a horse farm.

The point is, in any other country I would have suspected skulduggery. No other country would entrust a selection of the competing pilots with the authority to make such a decision, especially in the air. Whether it gave the Contest Committee some quiet satisfaction to leave the visiting Brit to find his own lift for a change, I don't know — I'd rather not think about that.

Gentle, parfit knight

That brings me to a ferocious article I once read in *SOARING* by a Mr. George Moffat which really made my ears burn. Surely this cannot be the same person as the charming, somewhat shy man of the same name that I met at the 1996 SSA Convention, twice World Open Class Champion. This article denounced the contemptible practise of

"leeching" in competitions, and said that pilots who were not smart enough or brave enough — or honourable enough — to go and find their own thermals should stay away from contests altogether, and stop impeding the progress of the real pilots. His advice has obviously not been heeded, otherwise every contest organizer in the world would have been bankrupted, and championships, even at the highest level, would have become very lonely events.

So aristocratic was the tone of this piece that I was not surprised to find in the history books several distinguished knights and barons called Moffat across hundreds of years of English and Scottish history.

In my mind's eye I see the year 1296: a mounted crusader, accompanied by his squire, is proceeding along a dusty road in the general direction of Jerusalem, but, as is traditional, pausing enroute for the occasional duel and the loot, pillage, and other customary perks of the job. Suddenly he stops and looks 'round:

"Squire, what is that rabble trailing half a mile behind us?"

"Those, my lord Moffat, are a bunch of peasants who are waitin' for you to do battle, then just as you are about to enjoy the spoils of victory they'll be all over you trying to pick up what they can get for free, without 'avin' 'ad to fight for it."

"Ugh, how disgusting! Tell them if they get in my way they'll feel the point of my lance. They're nothing but a lot of er, um..."

"Leeches, my lord?"

"That's just the word; leeches! I shall issue a proclamation in the next edition of *Jousting* banning these parasites from all tournaments and crusades."

"It won't do no good, my lord. The leeches you have with you always."

And it came to pass that the squire was right. The leeches have bred like wildfire. They are a very successful lifeform. Not surprising really, survival, not heroics, is the name of their game.

Let's hear it for us leeches and hangers-on. Can I say in mitigation that we second and third rate pilots do not go to contests for the

La première heure

Jacques Faribault

Aero Club des Outardes

ST-ESPRIT, le 4 août 1996, 11h45. Des nuages montent à l'ouest, vers Ste-Julienne. Les pilotes qui sont allés n'ont encore rien trouvé, les cumulus sont trop éloignés. Sur la piste on tente d'évaluer les possibilités. On questionne Gerry; avec un temps pareil, difficile à croire qu'en remorquant les planeurs il n'ait pas rencontré d'ascendance en chemin. Non, les nuages sont trop loin, mais une tour commence à monter.

Midi, heure du lunch, la plupart vont manger au restaurant plus loin sur la route. Gerry a son sandwich avec lui. Moi, rien. Mais les nuages semblent se rapprocher, j'aimerais bien aller voir sur place. Le sandwich avalé je demande à Gerry s'il est prêt à m'amener ou s'il préfère attendre pour la digestion. Non il préfère être en l'air.

J'inspecte sommairement le 1-26, touche à l'aile, l'aileron, le stabilisateur, la profondeur, dérive, aile. J'ajuste le dossier, je m'installe. Les sangles, les checks, le radio. Le coureur d'aile attache le câble de remorquage. L'avion prend sa position sur la piste devant. Je ferme la verrière, le coureur à l'aile attend mon pouce levé. Il lève l'aile; l'avion roule, je suis. C'est parti, 12h10. On accélère, le coureur laisse aller. Je mets le planeur sur sa roue et décolle avant l'avion. Je maintiens l'appareil à cinq pieds du sol. L'avion décolle. Le planeur dérive, je rectifie pour rester dans l'axe de la piste.

Si le câble se brise ici, j'atterris tout droit. L'avion tourne, bris de câble j'atterris dans ce champ-ci. On grimpe un peu, bris de câble j'atterris dans ce champ-là. 800 pieds au dessus de la piste, bris de câble je reviens au terrain. Plus on monte plus je me sens en sécurité. Le remorqueur se dirige vers Ste-Julienne. Rien en chemin. Le nuage est au dessus du village et monte vers nous. Une passe devant, demi tour et de nouveau vers le village.

- *Oscar India, OZK, tu es toujours derrière?* • "Oui, Zulu Kilo."
- *Tu feras attention, il peut y avoir de la grêle dans le nuage* • "Compris."

2000 pieds, l'avion monte devant moi. Nous sommes sous le nuage. Quelques secondes plus tard le vario indique plus 200. Je larguerai bientôt. 2100, encore un petit hocquet de l'avion, je suis, 200 au vario. J'attends 2200 et au prochain sursaut je largue. 2200. Encore une petite montée, j'attends l'indication au vario, je largue et dégage à droite en montant. L'avion dégage à gauche en descendant. Je le laisse aller, puis je reviens où il était.

Sous le nuage. J'ajuste le trim, croise à 40 milles à l'heure. Je fais du zéro. Je commence à descendre. Je reviens vers le bleu, à la limite du gris. Un petit effet ascenseur — bientôt dépassé. Je veux revenir. 2000, l'aile gauche se soulève légèrement, la laine pointe vers la droite. On va voir. Manche à gauche. L'aile n'enfoncé pas. Plus de manche. C'est ça, on monte!

Je tente de m'installer dans le virage, plus 300, plus 200. Manche, pédale, défilement du nez sur l'horizon, trafic, vitesse, assiette, correction, correction, palonnier, 0, je l'échappe. Plus 200, manche, palonnier, correction, défilement, vitesse, plus 100, plus 200, plus 100. Toujours à gauche, la ficelle indique la pédale droite, manche à gauche, la ficelle revient, je monte. Les nuages filent au dessus entre deux soleils.

2500, 2700, 3000, quel travail! Manche à gauche, l'appareil est de niveau, je vais débarquer. Plus de manche, la machine s'incline à gauche, je suis embarqué. Toujours à gauche. Pas de trafic. Ste-Julienne dans l'ombre sous le nuage. 3700 encore un petit effort, les nuages sont plus près, 4000, 4200, plafond. Je suis trop près du nuage, il faut redescendre. Manche en avant pour descendre vers le sud. J'accélère à 60 mais ça ne descend pas. Je file sous le nuage. On peut vraiment voyager avec ça.

Le bleu, ça descend, moins 100, moins 200. Je reviens en arrière pour retrouver quelque chose, histoire de me maintenir. Je descends toujours. 2700, une sensation, mais tourner à gauche ou à droite pour reprendre le courant d'air. Je tente à droite pour changer, ça descend. Je perds du temps, la gauche m'a été profitable, encore à gauche, je me maintiens sur du zéro positif.

- *Oscar India, ici St-Esprit* • "St-Esprit, ici Oscar India." • *Est-ce que tu redescends, on t'attend pour monter, ton heure est terminée* • "J'ai encore sept minutes." • *C'est vrai* •

Le trafic radio m'a distrait, je tente de retrouver le thermique. Ah, c'est ici, à gauche.

- "Zulu Kilo, ici Oscar India." • *Oui Oscar India* • "Si je tente mon heure est-ce que ça va compter."
- *Oui, c'est bon, ça compte. Demande ton temps à la base* • "Je suis parti à 'et dix'." • *Il faut que tu te rends à 'et trente', si tu vas à 'et vingt' tu l'auras* • "St-Esprit, ici Oscar India." • *Oscar India, St-Esprit* • "Y a-t-il un observateur officiel sur le terrain?" • *Oui, Paulo est là* • "Est-ce que je peux tenter de faire mon heure?" • *Oui ça va. Fais-la* • "Je vais essayer."

Le trafic radio m'a encore distrait, j'en reperds, 2000, 13h10. 1700, si je continue je vais devoir rentrer et faire un circuit abrégé, peut-être une longue base. L'aile gauche se soulève, manche, palonnier, plus 200, on repart à gauche. Horizon, instruments, trafic, commandes.

- *Oscar India, position?* • "Légèrement au nord du ferrailleur."

2000, je tourne en montant, 2500, 2700, 13h20, c'est fait, j'ai mon heure, moins le temps de remorquage. Ça monte encore, je continue pour une marge de sécurité sur mon temps. Puis cap au sud en descente à 60, en parallèle au large de la piste. Je dépasse le bout de la piste, tourne vers elle. Trop au sud à 1000 pieds. Les checks.

"St-Esprit, Oscar India en vent arrière piste sud."

Vitesse 40, je descends à 900 pieds, je pense à tourner plus tôt en base. Maintenant je fais du zéro au vario. Oups, ici je monte légèrement. À la fin du vent arrière je suis à 900 pieds.

Je tourne en base, trop près à mon goût de la piste, pas assez haut. Pas de trafic, je tourne en finale, vitesse 50, trop haut. Aéro freins à fond, je ne descends pas assez. Je maintiens la vitesse, pense à une glissade, puis ça chute. Je rentre les freins, ... la chute cesse, je les remets à fond puis je les dose, vitesse constante, ma pente est bonne.

J'arrive à la bosse, rentre les aéro freins, la passe, les remets légèrement, suis sa pente, touche en douceur. L'appareil bien assis je rentre les freins pour rouler le plus loin. Le patin veut toucher, je lève le nez, le patin fini par toucher. Les ailes sont droites, je tente de faire baisser la droite avec le manche, puis en me penchant à l'intérieur. L'aile gauche touche. 13h31. Temps de vol 1 heure 21, c'est fait.

L'auto de piste arrive, je sors, attache les commandes. J'attends. Je regarde le ciel bleu, les nuages, qu'est-ce que je fais ici? Je veux être en haut. ❖

When are you most at risk?

Last part – low altitude thermalling and landings

Tom Knauff

THERE I WAS at 300 feet when I felt a bump. I made a turn. I struggled and struggled, going up, losing the lift then finding it again until I climbed... We have all heard the story. In many cases, the story is a gross exaggeration of the true facts. A thermal is very small at low altitudes and the chance of a successful save unlikely.

The risks are very real; the rewards almost none. Stories of bravado are not believed, and this storyteller is recognized as a dissembler who will exaggerate the truth to boost his or her own ego. A successful low altitude save might avoid the inconvenience of an off-field landing, or maybe allow the pilot to win a contest day. The pilot has a slim chance to earn an inexpensive trophy and fifteen minutes of glory. An unsuccessful low altitude thermal attempt might result in serious injury or death. *The risks are not worth it.* Soaring is only a sport. An accident caused by foolish, irresponsible behaviour will affect how others perceive you. This can cause a loss of self-esteem and the respect of others. *A fool, is a fool, is a fool.* Smart, safe pilots set a minimum altitude limit based upon their skills, weather conditions, and aircraft characteristics.

Beginning pilots might use 1000 feet above the ground as the minimum altitude; an experienced pilot less than this. Whatever the

LOW ALTITUDE THERMALING

- Recognize the risks associated with low altitude thermalling.
- Set a reasonable minimum altitude limit for yourself.
- Fly with precision by paying close attention to pitch attitude to fly a proper airspeed.
- Keep the yaw string straight.
- Have a viable plan of action in case it is not possible to stay up.

minimum altitude the pilot establishes, there will be strong temptations to violate this self-imposed rule. Understanding how we operate as human beings, how the glider functions as an aircraft, and how the environment might affect us, we will make an intelligent decision about the situation and risks. Is it too low? Is it worth the risks? Am I keeping viable options? Will I be able to make a normal landing in a safe area if I can't stay up?

While thermalling at low altitude, as in all other low altitude turns, pay close attention to pitch attitude and airspeed, and keep the yaw string straight to prevent a dangerous stalling situation from developing. The ability to perform a turn with a constant, correct airspeed is a fundamental skill necessary for safe flight.

Understanding how the glider works is important. Minimum sink speed occurs well above stall speed. Stall speed, minimum sink speed and all other performance speeds are higher in a turn because the aircraft weighs more due to centrifugal force. While thermalling, it does no good at all to fly slower than minimum sink speed. (Have you checked your sailplane's polar which indicates stall speed and minimum sink speed?) The glider does not climb as well because the sink rate increases dramatically as stall speed is approached, and the glider is not as maneuverable at very slow speeds.

Thermals at low altitude are often turbulent. Inspecting the polar curve reveals that if the pilot flies several knots above minimum sink speed, the sink rate does not increase appreciably. Additional airspeed while thermalling will enable the pilot to control the glider better to stay within the limits of the thermal and give an additional margin for safety.

Keeping the yaw string straight during turns is essential for safety and to make the glider fly with minimum drag which results in a better climb rate. Pilots who recognize the risks associated with low altitude thermalling will set a reasonable minimum altitude limit, fly with precision by paying close attention to pitch attitude to fly a proper airspeed and keep the yaw string straight, all while keeping a viable plan of action in case it is not possible to stay up.

LANDING ACCIDENTS

Over 60% of fatal glider accidents are the result of a stall in the landing pattern. The majority of these occur in the vicinity of an airport. Most pilots believe the major risk of a stall or spin occurs during either the turn onto base or the turn onto final approach.

This is only part of the story. If it were possible to retrace a flight from the impact

point, we would discover a series of errors are typically made before the accident occurs. Common errors when low in the landing pattern include flying too close and too slow.

When the pilot is lower than desired on the downwind leg, it is likely the flight path will be closer to the landing area than proper. Psychologists call this "the Foxhole Syndrome." Soldiers sitting in a foxhole during a barrage usually think of the security of home, where they would rather be than in the damned foxhole. Pilots under the stress of a landing pattern gone wrong seek the security of runway/landing area, and are likely to fly too close to the landing area when on the downwind leg. This makes a normal length base leg impossible. A proper base leg is one of the essential ingredients for safe landings. A good base leg gives the pilot opportunities for adjustments if the pilot is high or low.

Another common error when too low is to fly too slowly. We looked at

this phenomenon in the last article. There is a part of our brain where mechanical reasoning, biases, preconceived notions, and false ideas reside. In aviation, it is a common misconception to believe the elevator causes the aircraft to go up and down, and for the rudder to turn the aircraft.

Even after training, a pilot under stress is subject to mishandling the craft. These dangerous misconceptions are reinforced every time the pilot misuses the controls. Considering the above, a pilot who will stall and spin in the landing pattern most likely commits other easily identifiable errors before the final act is committed. Before the stall/spin, the pilot flies too close to the landing area and flies too slowly. *I believe that landing accidents seldom occur from normal landing patterns.*

Most landing accidents begin with a low pattern entry altitude (mistake one) followed by flying the downwind leg too close (mistake two) and flying too slowly, (mistake three) with a mistaken, subconscious belief the elevator will keep the glider from descending too fast (mistake four).

A normal landing pattern has a distinct base leg which allows adjustments to correct for errors in judgement. Too high and the pilot has the option of simply turning slightly away from the landing area with the dive brakes on. Too low and the pilot can turn toward the landing area with the dive brakes off. A landing pattern that is flown too close to the landing area eliminates the important base leg, eliminating the flexibility and safety possibilities that leg provides. In addition, a downwind leg flown too close will require a steeper turn from downwind leg to final. When low, the typical pilot will ⇨ p21

*Flying is safe
so long as
you remember
how dangerous
it is.
Jeff Matthews*

Riding the Bronc

Fred Kisil

Flight Training & Safety committee

WE intuitively use a decision making process in virtually all our activities. However, during stressful situations, there may be a tendency to focus on the situation without moving on to the consideration of options, acting on an option and reassessing or repeating the process. Recognition of the steps of the "SOAR" technique (described in the SAC Soaring Instruction Manual) and a conscious application of it provides us with a structured mechanism to help us make informed decisions and to act on the best perceived course(s) of actions.

The following is an account of a recent experience where the SOAR method was put to good use. You will note that situations changed so rapidly that it was not always possible to complete all four steps of SOAR before a new set of situation(s) developed.

Situation Passenger on board a "Discovery" flight. Grass runway 20. Light wind at 200°, scattered clouds 5/10, bases about 2000 feet agl and higher. Ominous blue gray clouds to the north over the Turtle Mountains, cb activity far away to the south. As I strap into the back seat of the Lark, a well-defined scruffy white/dark mottled cloud that is different from nearby cumulus clouds, grabs my attention.

Options (1) wait for the cloud to pass, (2) ask for another opinion as to the potential threat from the nearby cloud.

Action Call tow-pilot for an independent assessment of the cloud. He replies that it is small and should not be a problem.

Repeat I re-examine the cloud and note that it has not changed significantly. It is small in comparison to other nearby cumulus clouds and I decide we are 'go' for the launch.

The tow to 2500 feet agl and post-release flight are uneventful. Lift and sink average about 1 knot. We manage to do some soaring and fly over the townsites and the arena where the rodeo is underway. At about 1300 feet agl, about a mile west of the circuit entry point, I complete the prelanding checks and head to the general area for a right hand circuit on runway 20.

Situation Ground operations advises that winds are gusting. A Blanik pilot landing on runway 20 asks for help to hold the sailplane down. Ground again advises that the wind is very gusty, has changed direction and that I consider using runway 30.

Options Runway 30 is paved, narrow, with sloping grass sides. Maintaining directional control on landing will be difficult under the variable conditions.

Action Change course for a right hand circuit on runway 30 or in adjoining parallel fields.

Situation Ground advises the wind is now from the north and gusting strongly at ground level. There is urgency in the voice. I hear someone say, there goes a roof. Conditions are obviously rapidly deteriorating. I don't have the altitude to ride out the windstorm.

Options Grass runway 02 is orientated into the preferred landing direction. It is bordered by grain fields that can serve as alternate landing sites.

Actions I advise ground that I will go for runway 02. "Good luck," comes the reply.

Situation WHAM! Without warning, the sailplane violently pitches up over 60 degrees and stays at that attitude in spite of my attempts to lower the nose. The vario is off scale on the up side. A few seconds later, the nose pitches almost straight down and all is eerily quiet. The ASI is reading 60 knots; the vario has reversed direction and is now off scale on the down side. I calmly explain to my passenger to brace for a wild ride. He is enthusiastic and enjoying it. Meanwhile, my mouth is dry. I don't know what mother nature has in store. Eventually I am able to pull the nose up. We are still flying and have at least 1000 feet in which to maneuver. As I prepare to turn, we are again hit by the extremely turbulent bucking up and down. I see no evidence of a rotor cloud, but it sure feels like one. This is a rodeo ride in the sky.

Options (1) Fly away from the mountain and choose a landing site downwind from the airport. There are trees to contend with and the turns into wind will have to be made at a low altitude in a presumably steep wind gradient.

(2) Fly away from the mountain, turn to line up with runway 02, leaving lots of height to select the most appropriate into wind direction and off-field landing site(s).

Action Turn and fly downwind, away from the mountains. The turbulence slackens to the point where I am able to retain full control of the sailplane in spite of the wild gyrations. ➔ p20

Frank Cwikla

Winnipeg Gliding Club

AUGUST 28, 1995 looked like a good day, and I planned to fly a small 80 kilometre task from the Winnipeg field at Starbuck to Carman, Elm Creek and back.

My previous cross-country experience included a few short flights to Brunkild, Culross, and three "real" ones: straight out to Steinbach (85 kilometres), the same 80 kilometre triangle I was planning, and a 100 kilometre out and return to St-Claude. My only landing away from WGC was at Steinbach on my very first cross-country flight plus some flights at Southport.

I found lots of lift after release, stayed around the field for some time before leaving for Carman, then headed southwest. It was a blue day, but the thermals were clearly marked by field fires. I was able to progress rather quickly seeing the location of each thermal ahead. I arrived over Carman at 4000 feet, gained some altitude and located the two small airfields south of the town in case I had to land there.

Around 3:30, flying over Hwy 13, I realized that the "good" lift was gone. I slowed down to conserve altitude and started checking the ground for possible sources of lift. I was slowly drifting south, back towards Carman, selecting a new field every 10 to 15 minutes and trying to locate useful lift but finding nothing. When the altimeter showed 1600 feet (700 agl), I knew it was time to land. I was over a corner of my next selected field. It was harvested, with visible stubble. It turned out it was a canola field. The field was a quarter section with a row of trees dividing it in two.

The trees formed a line going east-west. This dictated the direction of my "runway". With a very light wind from the north, this would not be a problem. There was a farm house in the southwest corner of the quarter section and I entered my circuit overhead the house. I flew east along the edge of the field checking for power lines and other obstructions. There was a power line just under me, along the gravel road but nothing near my intended final approach.

As I approached the eastern edge of my field, I flew over some trees. The ground seemed to be very close. I

made a medium, 180 degree, coordinated turn. I kept my airspeed at 45 knots. When I levelled out, I found myself waaaay too high, with about 2/3 of the field length left in front of me. I quickly opened full spoilers and dived in. I started rounding out a bit earlier than normal, knowing the L-Spatz with full spoilers needs that little extra height.

The touchdown was just right, but my speed was high. No wheel brake and the glider was not slowing down. The end of the field was quickly approaching. I could see a small road embankment ahead and there was no way I could stop before crashing into it. What about a gentle turn to the right? There was open ground there. Right stick and right rudder applied... what's happening? The field quickly turned around once and then again. The glider stopped facing the direction it came from. The dust settled and I got out of the cockpit assuming I had damaged the glider. The bent fuselage was immediately evident but the wings looked okay and so did the rest of the glider (I had expected to see a lot more damage).

I looked in the direction of the ground roll and saw the road close by. I measured the distance later and found I had stopped about 150 feet short of the embankment. The glider had touched the ground with its right wing, and rotated 90 degrees. It made a small ditch in the ground with its wheel going sideways for about 30 feet. Then the tail section rotated in the same direction for another 80 degrees.

Later, I took the glider to Henry's Aircraft Maintenance for the repair. After bringing the glider back we assembled, checked and rechecked it. Then our CFI went for a test flight and showed me how to make a short field landing when he came back. It seemed to fly well.

A \$500 lesson (the insurance deductible)

After reliving this flight many times during the fall of 1995, I now have a better understanding of what went wrong. I thought about the errors I made and how I would handle the same landing now. I read about outlandings before, yet I made many typical beginner's mistakes that are described in every article on the subject. I would like to share my knowledge, especially with low time cross-country pilots.

One of the authors said: *"A good approach to a bad field is better than a bad approach for a good field."* He was right.

1 Do not delay your decision to land. You must accept the fact if there's no usable lift. When low, spend your time on planning your circuit, not looking for lift. When you get lower, you become more nervous. I did.

2 Plan your circuit before the takeoff. Flying over the square quarter sections in Manitoba makes circuit planning easy. Let's try landing on runway 35 at Starbuck. You enter the circuit over the northwest corner

of the club's quarter section. You fly south along the gravel road. You are about 1/2 mile or a half section away from the runway. This distance will become the length of your base leg. You need a base leg to set up your final turn height. You fly your downwind leg well into the next quarter. This distance will become the length of your final approach. You need this to control the descent angle on final.

You are probably saying: "Well, yes, we know all that." Yes, we do. Now try doing this at some strange field, with some trees, and when you're low.

Then you might try and fly your circuit "hugging the field" like I did. I was afraid to fly too far from the field since I was already low. I flew along the edge of the field, made a tight U-turn at the far end and then found myself too high, about 1/3 down my selected "runway".

Start planning your circuit early and decide where you want to land. Then picture where your downwind and base legs will fall on the ground. "Fly your downwind leg about 1/2 mile or a half section away from your intended landing run." Even when you get too low, you can always adjust, and turn base early. But you need your base leg. Another advantage of flying your downwind leg at a distance from your landing path is that you can judge your height much easier.

3 You are never too low. From 600 feet you can fly a distance of 2.8 miles (assuming 25:1 glide ratio). Your circuit will take 1.5 to 2 miles, and you still have to lose some altitude. Even if you find yourself lower than the "standard" 800 feet, do not panic, and fly your downwind leg spaced properly away from your selected field.

4 Crash the glider deliberately if you need to. Reading some more articles on field landings after my accident, I came across an author who said, "If you find yourself rolling fast into a fence, groundloop the glider. You are going to avoid injuries and perhaps even save your life." My groundloop was not premeditated, but I think it saved me. I was not hurt and the glider was repaired in about six weeks. Some people may not like thinking about this, but their instinct would probably tell them to do the same thing.

5 Cross-country training. I suggest we practise off-field landings with an instructor. A safe field near the club could be used for practise landings in the fall (no crops). Cross-country training for low time pilots should include a good amount of lectures devoted to off-field landings. We learn about different types of variors, their readings and interpretation, weather conditions, speed to fly, etc. All those things are good to know, but if you lack some knowledge in those areas, it should only affect your average flight speed, but if you are not properly prepared for an off-field landing, you might well have an accident. It seems to me that off-field landing training should be topic number one during cross-country training.

6 Don't quit. I had serious thoughts about quitting flying after the accident. It was brought home to me very clearly that there is risk involved with flying. I enjoy this sport and decided to continue flying for another few seasons. I had a few more flights after the accident last fall and I hope to do more cross-country (weather and CFI permitting) this year. I will try to improve my landings, not just to "impress" the people at the flight line, but so that I know I am in control, and can land where and how I want to.

comment from CFI Mike Maskell

Frank is to be commended for sharing his experience with us. I hope everyone will learn something from it. Here are a few additional thoughts:

First, why did the glider groundloop when Frank started his turn to avoid the obstacle he was approaching? Frank says that he applied "right stick and right rudder" to begin a gentle turn and was startled by the result. I recall almost exactly the same conversation a few years ago with another pilot who could not understand why the glider would always drop a wing while he tried to steer the glider on the ground. His hand actions spoke volumes as he demonstrated his control inputs while "hangar flying" one night. Of course, applying aileron while rolling on the ground will cause the wing to drop and likely drag on the ground.

Banking works to turn the glider in the air because of the aerodynamic forces on the glider. This is simply not possible on the ground because of the very small amount of wing clearance available. Turning a glider on the ground requires that the wings be kept level and that a turning (sideways) force be created by the main wheel in contact with the ground. The correct control input is rudder only and just enough opposite aileron to keep the wings level. Think about your early days of training and the further effects of the rudder and the glider response while doing rudder only turns. A bit of forward stick might also help by keeping the wheel firmly in contact with the ground.

Another point is that while on the approach and high, Frank did not use a side slip with spoilers which, done correctly, might have got him down with more field remaining. Remember to practise side slips often until you are comfortable doing them on final approach. The comment Frank makes is that "I quickly opened full spoilers and dived in..." Flying the final approach at the correctly chosen speed and maintaining it throughout might also have helped in getting down safely.

These are but a few of the hints that I would like to pass on. Our Safety Officer is planning some additional off-field landing practise as Frank suggests and hopefully this will take place in the fall. Until then, fly cross-country, practise your technique for side slips and become proficient at them, and read up on field selection and flying the approach to off-airport landings. ❖

hangar flying

† Keith Pritchard

Glider pilots are different from other people. We have had the privilege of fleeting freedom from earth's bonds. The diminutive size of our fraternity means that our many varied circumstances fade when our common link is shattered by a fatal accident.

Keith Pritchard loved his chosen passion of soaring. Originally a power pilot, Keith's love affair with aviation truly blossomed when he was introduced to soaring scarcely six years ago. As in his personal and business lives, Keith embraced his new found amour with commitment and enthusiasm. Many dedicated glider pilots shun towing as a burdensome chore — Keith would gladly take his turn with never a complaint. On more than one occasion, he would tow me aloft on one of those splendid mid-week afternoons in the "55" we both owned.

Keith was not only our club president but more importantly, a member and pilot who was respected by all. His contribution was not limited to just the normal club activities. The week before his death, Keith and his lifetime partner Maria hosted a gala party for all club members and spouses which was the delight of the '96 flying season. None of us could imagine the following weekend would be so tragically opposite.

The power wires which brought down Keith's sailplane in an off-field landing are a hazard we all face. A moment's lapse in concentration is possible for any of us, particularly when struggling to make it home after an afternoon's flying.

Keith's friendship, leadership, and skills are a memory we will always treasure. He now soars without our terrestrial limits.

Paul Nelson

WORLD AIR GAMES

The FAI is sponsoring the first international "Olympics" of aerospots, the "1st World Air Games", which will be held in Anadolu, Turkey in 1997. A fairly heavyweight group is busy moving the organization of the event along. This year, eleven test aerospot events (including a soaring competition) have been run as a dress rehearsal. Turkish TV channels have produced programs during these test games, assisted and advised by international air sport TV experts.

In 1997, the soaring event will be a one class contest with the PW5 World class sailplane. It is reported that top German pilot, Bruno Gantenbrink, has purchased a PW5 to compete there.

Air Sports International

† André Dumestre

In the mid-sixties André, newly transferred to Calgary from his native France, quickly located the Cu Nim Gliding Club and brought with him a vitality and passion for flying. He also brought a Libelle 301 — an awesome example of sleek fibreglass and performance. He came to fly, and always left the field on the first available thermal for a new adventure in the Alberta skies.

In 1968 we lost our field at DeWinton to a land speculator purchase and thereafter flew from various fields in 1969. It was André who located the little known and almost forgotten airstrip on the Thompson Ranch at Black Diamond which has been our homebase since 1970. In the years that followed we grew and prospered while André returned to France where he embraced the latest trend, the motorglider.

Over the years he stayed in touch and in 1993 returned to Calgary from Thailand to complete a project he began there — a magnificent composite 25m span tandem seat motorglider. On the second test flight, while on his approach to land at Springbank airport, a sudden structural failure of the wing claimed his life. We feel the pain of his untimely death, and our heartfelt condolence goes to his family.

Bruce Hea

CHECK OUT THE SAC WEBSITE

<http://www.pubnix.net/~rmacpher/sac.html>

If you are on the Net and haven't had a look at the SAC homepage, it is time you did and you are missing some lively discussion! It is full of useful information, and SAC data is going there as a convenience to members as quickly as it can be converted. One of the services coming up will be to have all the usual SAC forms available there.

Some things you will find there are:

- e-mail directory of SAC members. *Please add your address to the list and send in any corrections.*
- SAC Supplies
- club directory. If your club has a new homepage, add it here.
- SAC roundtable — interesting topics of discussion: the state of Canadian competition and the team selection process, are pilots from other clubs welcome at yours?, etc.

The FAI also has a web page with links to pages for each aerospot, new information, etc. The International Gliding Commission publishes meeting agendas, meeting minutes, and Sporting Code for gliders. The FAI is on the Net at:

<http://www.fai.org/~fai/>

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the One Ton pillow

from page 4

process by which the structure was created and instituted. More correctly, it was the *lack* of due process — the lack of information and consultation — which concerned us most. Enough people however, wrote personal variations of the letter to cover every facet of our concerns. A generalized version was sent to SAC for national distribution to all members, and a copy was sent to the Aero Club of Canada for the information of other sport aviation groups.

The future I hope that, by the time you read this, we at Cu Nim will have resolved our airspace problem. Did the letter writing help? There is no question that Transport Canada's position changed along the way. Whether the letter writing helped, we don't know. It certainly didn't seem to hurt. After all, our letters to the Minister were really intended to achieve just one thing — to give us a higher profile! The squeaky wheel gets the grease. It appears that this is something that SAC has been lacking, at least in the airspace department.

However, many questions remain. We have not yet received any definitive answer to the "Why" of the structure. And how does this massive expansion of controlled airspace support Transport Canada's own policy to "revitalize recreational aviation in Canada"? Is this unilateral action an example of the partnership approach that was presented by Transport Canada at the Regina AGM? And finally, after having been overrun by this new airspace, and having HAD to work out agreements with the controllers — do we become another, albeit reluctant, "user" of controlled airspace for NavCan to bill?

And what about YOU? On October 11th, did your club suddenly acquire an airspace problem? I hope not. But I still urge you to get involved, because all it takes to change YOUR situation is the stroke of a pen. ❖

WESTERN INSTRUCTORS COURSE

The SAC Western Instructors Course was recently concluded, having run from 14–20 July in Birch Hills, Saskatchewan. Hosted by the Prince Albert Soaring Club, this year's course was the best attended course in years with a total of 15 instructor candidates in attendance. The weather was reasonably cooperative and only two days were lost due to low stratus and drizzle. The course was run by Cu Nim CFI Terry Southwood, assisted by Edmonton's CFI, Jack Towers.

From my perspective as one of the instructor candidates, the course was a great success. We were flying two K7s on the winch and a Blanik L13 on aerotow. An interesting aspect was the cross-training taking place throughout the week. Pilots with primarily winch experience were aerotowing and those who aerotow at home were wearing out the winch. Had we got our hands on a bungee anything might have happened.

I must comment on the benefits of the course for those who may consider going in the future. I considered myself a competent pilot before I showed up in Birch Hills. Perhaps I was, but I know for sure that with Terry's help I have trodden on a number of bad habits that were creeping into my flying. I am speaking only for myself but I would hazard a guess that most others in attendance feel the same way. I would

strongly encourage anyone interested to attend a course. A few points of interest and acknowledgment. I hereby nominate Don Klassen of Prince Albert Soaring to conduct a national seminar on crew organization. Clearly he has rare talents in this area as evidenced by his ability to get his wife to retrieve the winch chute from the sewage pond where it landed after a cable break. Congrats go to Howard Loewen of Winnipeg for earning the highest score in the written exam (94%). My personal thanks go to Neil Gegenbauer for his help in establishing tape recording procedures (Neil was the youngest pilot there and flies with the VSA in Hope BC. Aside from a blank look if you refer to the horizon — he claims they don't have one — Neil is a gifted pilot and a pleasure to fly with.

Finally I offer my sincere gratitude to Terry for his tireless efforts — I know I speak for all in attendance. I can only guess how much effort he has put into the ground work to teach such a concise and involving course. It was fun! Terry has that rare ability to point out bad habits and make you like it. I would also like to thank all the PA boys for their enthusiastic efforts. I'm guessing that the host club always works harder than those from afar but I doubt that many do so with such good will and humour. I'll fly with you guys anytime.

Mike Freeland
Edmonton Soaring Club

LIGHTNING STRIKE

A Discus flown by Ken Sorenson was struck by lightning during the final contest day of the US Standard Class Nationals at Moriarity, New Mexico. The pilot was coming out of the first turn some 2000 feet below cloud-base when he was struck. He was not under a cloud but several were close by and it is supposed that it was hit by a cloud to cloud strike with Ken in the middle. At first he thought he had been in a midair — the canopy was gone and the controls were stiff. He was close to an airstrip and landed immediately without further incident.

The strike had gone through the nosehook and exited through the elevator and rudder. The bottom of the pilot's tennis shoes were black as were the outside of his socks but he didn't suffer any burns. He had a cut on his forehead, presumably from the canopy exploding. The instrument panel and all wiring and cables were completely destroyed. The controls were stiff, possibly due to flash welding of the control tubes to the bearings. There is also the great possibility that the hinges in the tail were damaged as there were black and yellow burn marks coming from the elevator and rudder gaps.

The Soaring Safety Foundation will be doing a complete investigation into the event and publishing the results.

from *Sailplane Racing News*



The Rogues Gallery at the 1996 SAC Western Instructors Course held at Birch Hills, SK. Standing l-r: Reg Adams (Edmonton), Neil Gegenbauer (Vancouver), Rob Lohmaier (Prince Albert), Dennis Mountford (PA), Dave Russell (PA), Terry Southwood (Course Director), Clarence Iverson (Saskatoon), Don Klassen (PA), Howard Loewen (Winnipeg), Neil MacKinnon (Winnipeg), Jeff Anderson (Cold Lake). Kneeling l-r: Keith Andrews (PA), Mike Freeland (Edmonton), Mike Newman (PA), Jack Towers (Asst Dir), Darrin Bitter (Regina), Todd Benko (Cold Lake).

ONTARIO PROVINCIAL CONTEST A THREE DAY SUCCESS

HOSTED BY THE Toronto Soaring Club during the August long weekend, all twenty-three ships and crews survived unscathed due to the excellent organization of the event under the watchful eye of CD Larry Springford. The people at Toronto Soaring made us all welcome and literally gave us full run of the club.

The weather progressed from unstable with reasonable visibility on the first day to hot, hazy and humid on the last day with minimal visibility, but all three days were soarable and it was solely up to the pilots to get the most out of the PST handicapped tasks. The variety of planes was about as broad as one could imagine, but to my surprise, there were no lower performance sailplanes. Except for the HP-14 and -18, everything was fibreglass, five being SZD-55s. My ride was "HT", a G102 on loan from SOSA for which I am truly grateful.

Friday night saw everyone put up tents in the evening, swat mosquitoes and hide in the clubhouse to meet old friends and make new ones. When I left to get some sleep I couldn't get into my sleeping bag as some "friend" had sewn it shut. That set the tone for the unofficial contest which occurred during the wee hours.

On Saturday morning the forecast looked good enough for Larry to set a three hour task. With great anticipation we launched to a 13:50 start. I must admit some frustration here as I couldn't even find the club from the air due to the somewhat featureless terrain — familiarity was a definite bonus for those pilots who had been here before. I finally spotted the field about five minutes before the gate opened and spent the next few moments picking some landmarks to help me get home. Ulli Werneburg flew 250 kilometres and won the day with a speed of 84.1 km/h. I managed 88.8 kilometres to Mount Forest, and Shelburne, and came home early (finding the field easily this time) but my conservative decision cost me some points. Bless my crew though, they told me not to feel bad and that my finish looked "wicked". Some pilots performed finishes more wicked than mine (less than 50 feet) and got penalized — Larry was quite strict about finish heights.

Returning to my tent to retire that night, I discovered I had a sleeping bag problem: it was occupied by Eddy Hollestelle! Eddy flew the SOSA Citabria up to the contest and trusted my crew chief, Kathy Burany, to find a proper place for all his belongings which were in her car. It seems that Kathy thought I could use his company.

Sunday was an efficient repeat of Saturday. Gerry Bunder and Dean ran the ropes while our three towpilots got everyone up a few minutes earlier than the day before. Larry decreed a 3-1/2 hour PST and the weather seemed to support the decision. Jörg Stieber

toured 303 kilometres at 84 km/h to win the day. He used mostly streets and a low save near Arthur to get around his course. Most of the pack exceeded 200 kilometres. I took the opportunity to support local agriculture and landed at the Bessey Beef Farm near Belwood. Ron Bessey was a gracious farmer as he offered me a beer and apologized for the condition of his pool. While we were derigging, we saw Hans Berg scrape out of the hole that I couldn't get out of, and Ron said, "Isn't that what you were supposed to do?" "Yes, but I really only wanted to go 93 kilometres today." My crew also informed me that my contest letters were Hotel Tango and not "Horny Toad". Apparently Larry was at a loss for words when I called in my start time and he took half a minute to call back. My crew chief had previously mentioned to Larry that my secret radio name was "Hot Tamale", and after some discussion they thought the new phonetics were much better. On Day Three I was Hotel Tango again.

Sunday night a flock of us went to Mount Forest to sample the local cuisine. There was much talk about "Oh, I should have done this better" and "I thought I had enough height to get there". I kept my ears open as much as possible, but flying chat was being drowned out with, "Why don't you try the wings?" "You know, I think I'll have the wings." "Are you going to have wings? I hear they're good!" "I know, let's have wings." Later, the night's antics were fun for those of us stupid enough to stay up. At least my sleeping bag worked, but my car was nowhere to be found.

Monday had us sweating profusely while rigging and washing. The morning sounding promised a 5000 foot cloudbase with nine knot thermals. Larry thought that making the first two turnpoints of Arthur and Shelburne mandatory would help the less experienced pilots tag along and learn from the more experienced ones. Cloudbase varied, but it was only 3200 agl on average. The thermals weren't nine knots either. The task was revised downwards to two hours, and the mandatory turnpoints were scrubbed due to poor visibility. I found a good thermal and by the time I turned once, four gliders rushed in. By the completion of my second revolution, another three had joined us. However, the gaggles were orderly and there were few intrusions. Jörg and Ed Hollestelle Sr. both flew 151 kilometres to finish in top place for the day.

Towards Mount Forest I had the pleasure of flying abreast of "LC", SOSA's Twin Grob piloted by Lorraine and Charles Gower. I shot my turnpoint and headed back feeling a bit uncomfortable about the visibility and conditions. I landed out three miles west of the field. The field was good and despite a tailwind component, the rollout was short and uneventful. My cellular phone died halfway through my giving directions to

Kathy. I had to flag down passing pilots on the radio to finish the message, but I was retrieved in good time by Kathy and Pat Templeton and returned for the closing ceremonies.

I was going to have a shower but the super-soakers and buckets of water relieved me of that decision. When I went to change into some dry clothes, my tent had been emptied and my last pair of briefs were starched stiff and stuck to the fence. The contest seemed full of surprises!

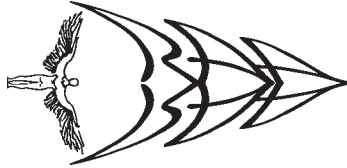
The closing ceremonies were short but thanks and praise went to Larry, Kathy (also acting as Assistant CD), Steve Liard (photo developing), Colin Bantin (scoring), the towpilots and the Toronto Soaring Club. I'd like to personally thank Kathy for her excellent crewing and moral support along with Andrea Kuciak, Peter Vados, and to Gerry Bunder and Pat Templeton who helped retrieve me.

Jörg Stieber won first place followed by Ulli Werneburg and Wilfried Krueger. SOSA's Carsten Schraeder won "Best Novice Performance" (he flew his Diamond Goal in July). I think he'll be hot on the heels of Jörg and the other top pilots in the near future. Below is a summary of the final results. The numbers speak for themselves, but I'd like to add that I thoroughly enjoyed myself and I learned quite a lot. I was a little disappointed with my performance on the whole, but as Kerry Kirby said, if I'd spend half the time flying cross-country as I do instructing, it would have been a different story. The Grob was a nice departure from the 1-26 I flew in the Provincials last year. This year I managed to start all three days, finish once, landout twice and I got to compete with Canada's top pilots. Who knows, maybe I'll end up at the other end of the list in a few years!

Mike Morgulis
SOSA

RESULTS SUMMARY 1996 Ontario Provincials

1	Stieber, Jörg	LS4	2680
2	Werneburg, Ulli	ASW-20	2666
3	Krueger, Wilfried	LS6	2458
4	Bonnière, Nick	ASW-20	2396
5	Hollestelle, Ed	SZD-55	2299
6	Devries, Calvin	HP-14	1898
7	Grant, Ian	LS4	1883
8	Bantin, Colin	SZD-55	1880
9	Hunkeler, Fred	Std Jantar	1738
10	Freyett, Jim	Libelle 301	1686
11	Berg, Hans	Std Cirrus	1567
12	Juergensen, Hans	ASW-20	1540
13	Kirby/Toplis	Jantar 2	1470
14	Rumpf, Udo	HP-18	1430
15	Springford, Dave	ASW-20	1342
16	Keith, Chuck	SZD-55	1299
17	Gower, C & L	Twin Astir	1126
18	Schraeder, Carsten	Hornet	1088
19	Nelson, Paul	SZD-55	1017
20	O'Hanlan, Tim	Jantar 2	979
21	Longhurst, Richard	SZD-55	949
22	Coulson, Tom	Mosquito	380
23	Morgulis, Mike	Astir	324



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1997 SSA calendar ad here

I veered to the north to follow a river bank, hoping to find anything that might kick off a thermal. Several miles ahead a small, wispy cu was beginning to form and I put the nose down. Arriving about three minutes later, I pulled up to find nothing!

My stress level was climbing as the altimeter was falling. The bottom really fell out of my emotional bucket as a wave of pilots started to radio "five miles out". The other classes were finishing in a pack, and the pack had somehow given me the slip. How could 16 aircraft get by unnoticed? I shook my head, gritted my teeth, and swore that I was going to finish the task. I continued my small course deviations to overfly hills, river banks, concentrations of dark fields, working anything that might be giving lift. I let myself drift downwind in zero sink here, gained 100 feet thermalling there. I struggled and fought, and by 18:10 the GPS said I was within 10 nautical miles of Red Deer. I was going to be late; I was probably going to land out as well. At 1400 feet agl, with a tailwind, the computer said I could reach Red Deer — if I removed all of my safety margin for the circuit. Ahead was a large hill blocking any view of the approach to the airport. On the other side, I knew there was a four lane freeway, two sets of high tension power lines, railroad tracks and lots of trees. I let myself drift downwind while circling in some very weak lift over a hilltop.

I tried to recheck the numbers in the final glide calculation in my head, but all I could think about was the accident on day one. I flew over a good looking field and scouted out an approach before dropping the gear at 800 feet and flying a circuit to an un-

eventful landing. Stepping out of the cockpit, I took a picture of the tail, and sat on the ground feeling physically and emotionally drained. I had put everything I had into this flight, and came up short. I glanced at my watch, and then at the GPS. Time: 18:24; almost five hours in the air. Distance remaining to goal: 5.68 nautical miles.

Keith, my partner, showed up in short order with the trailer in tow and a big grin on his face. He told me the reason I never saw anyone after Stettler was because the task committee changed the task for the 15m and Standard classes on the grid after I launched. Several of the neighbours showed up to watch us derig and, to add insult to injury, it started to rain as soon as we opened the trailer. After a deduction for being over-time, I am credited with 265 kilometres for the day. With no speed points, this is good enough for seventh place, keeping Team 54 still in fourth place overall.

The Letdown

July 2-4 I'm relieved that it's Keith's turn to fly again as I am too tired to get back into the cockpit. The weatherman is calling for an inversion to spoil the fun. He says it will be great tanning weather, though. We rigged, we gridded, we sweated, we waited. He is bang on. In the end, the day is scrubbed, as were the next two days, due to the deepening inversion. The contest is over, our fourth place finish stands. An anticyclonic finish, to be sure, but Keith and I are both satisfied that we have finished our first major contest without pranging anything, and we have learned a lot by doing it.

Many thanks to the entire Cold Lake crew for a superbly organized contest. I know that the 1996 Nationals set a standard that will be hard for other clubs to match. ❖

Repeat/reassess Option 2 looks the best. The turbulence keeps on decreasing the further we fly away from the mountain. The fam is still enjoying the bucking ride. I prepare him for the possibility that I may elect to land in the grain field. Nothing seems to dampen his enthusiasm. Fortunately, I can concentrate on flying the sailplane.

Situation On final, lined up for runway 02, airspeed at 80 knots. We are high and making slow progress over the ground.

Option Land in the grain or continue on to the runway.

Action I maintain 80 knots until we are just a few feet above the swaying grain. By slowly trading airspeed for altitude, I'm able to hold off until the grass runway is underneath. Time to set her down. Flying does not stop even though we are at rest. Now the wind helps propel the ground personnel who are coming to hold us down. Our rodeo is over.

The rapidity with which a situation can change serves to underscore the necessity to be mentally ahead of the situation in real time. The first priority was to fly the sailplane. Fortunately, the prelanding checks had been completed well in advance of encountering the extreme turbulence and the passenger was well secured. In addition, by explaining in a reassuring voice what was happening, and what to expect, the passenger remained calm. Consequently, the passenger did not add further stress to the situation. The second priority was to keep considering one's options and acting on the best perceived option, before running out of ideas and altitude. ❖

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Low thermalling ... from page 13

resist the bank angle required partly because of an unfounded fear of steep turns. The result is a turn with an inadequate bank angle causing the glider to overshoot the landing area. The pilot perceives the glider will not turn quickly enough, but fearing a steeper bank angle will instinctively press on the rudder in a futile, desperate attempt to turn the glider more quickly.

Before this has happened, the glider is already lower than desired and being flown too slowly. The skidding turn that results from the over-ruddered turn causes the glider to descend even faster. The hapless (hopeless) pilot will instinctively resist the increased descent rate with even more back stick pressure.

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- Use proper spacing during the downwind leg.
- Fly a constant, appropriate speed.
- Keep the yaw string straight and the airspeed constant during all turns.
- Plan the landing pattern so you are above wind gradient/turbulence when turning onto final.
- Always be high enough.
- Avoid turning onto base leg too early.
- Avoid buttonhook landing patterns. ❖

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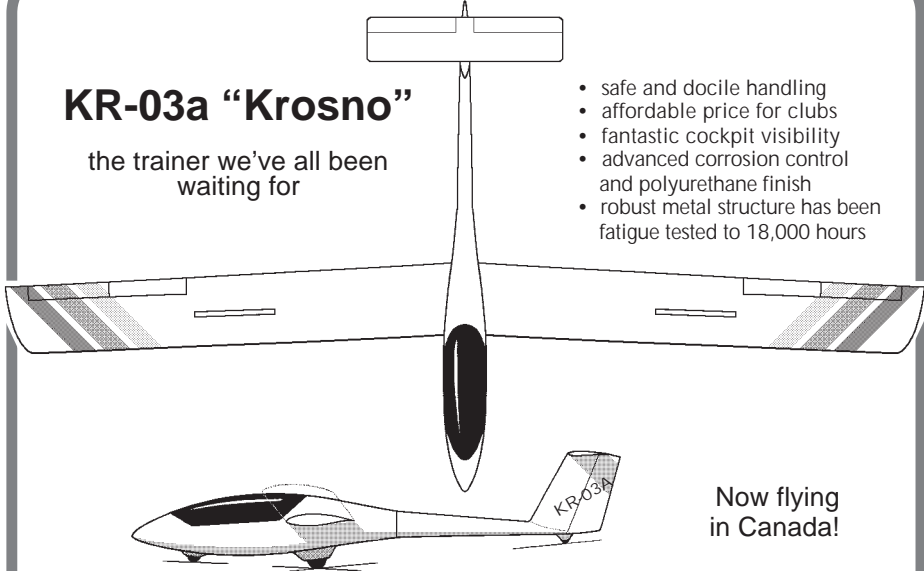
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The following badge legs were recorded in the Canadian Soaring Register during the period 1 June to 1 Sept 1996.

GOLD BADGE

275 Harald Tilgner Vancouver

SILVER BADGE

872 Neil Gegenbauer Vancouver
873 Richard Noel Quebec

DIAMOND GOAL (300 km goal)

Harald Tilgner Vancouver 302.7 km Ka6E Invermere, BC

GOLD DISTANCE (300 km)

Harald Tilgner Vancouver 302.7 km Ka6E Invermere, BC

SILVER ALTITUDE (1000m gain)

Neil Gegenbauer Vancouver 2130 m ASW20CL Ephrata, WA
Jan Mensink Vancouver 2220 m Blanik L-23 Pemberton, BC
Troy Yee Vancouver 1610 m Blanik L-23 Pemberton, BC
Andrea Kuciak SOSA 1310 m 1-26 Rockton, ON

SILVER DURATION (5 hours)

Jan Cina SOSA 5:27 h Blanik L-13 Rockton, ON
Andrew Parker SOSA 5:52 h Blanik L-13 Rockton, ON
Pierre Brousseau Quebec 5:20 h Ka6E St Raymond, PQ

SILVER DISTANCE (50 km)

Neil Gegenbauer Vancouver 133.0 km ASW20CL Golden BC
Richard Noel Quebec 91.6 km Grob G102 St Raymond PQ
Calvin Gillett London 59.5 km SGS 1-34 Embro ON

C BADGE (1 hour flight)

2513 Jan Mensink Vancouver 2:28 h Blanik L-23 Pemberton, BC
2514 Troy Yee Vancouver 2:10 h Blanik L-23 Pemberton, BC
2515 Robert McRae York 1:34 h 1-26 Arthur East, ON
2516 Andrea Kuciak SOSA 3:41 h 1-26 Rockton, ON
2517 Lorraine Gower SOSA 1:41 h 1-26 Rockton, ON
2518 Ross McEwen Montreal 1:36 h 1-26 Hawkesbury, ON
2519 David Robinson York 1:03 h 2-33 Arthur East, ON

Richardson Greenshields

camera ready ad

2520 Katalin Kocsis COSA (Hungarian Silver C, now Canadian citizen)
2521 Koroly Kocsis COSA (Hungarian Silver C, now Canadian citizen)
2522 Robert Desjardins Montreal 2:28 h Blanik L-13 Hawkesbury ON
2523 Andrew Parker SOSA 5:52 h Blanik L-13 Rockton, ON
2524 Guillaume Carpentier Quebec 1:42 Blanik L-13 St Raymond, PQ

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| 8 | FAI SILVER badge, pin | \$45.00 |
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| <i>Items 10, 11 not stocked - external purchase approval given</i> | | |
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| 11 | FAI DIAMOND badge, 10k or 14k pin and diamonds | |
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| Processing fee for each FAI application form submitted \$15.00 | | |
| 13 | FAI badge application form (also stocked by club) | n/c |
| 14 | Official Observer application form (also stocked by club) | n/c |
| 15 | SAC Flight Trophies application form (also stocked by club) | n/c |
| 16 | FAI Records application form | n/c |
| 17 | Flight Declaration form (also stocked by club) per sheet | n/c |
| 18 | SAC guide "Badge and Records Procedures", ed. 6 | \$ 5.00 |

NOTE this change →

ARTICLES ACVV POUR CERTIFICATS ET INSIGNES

- | | |
|--|--|
| Insigne FAI 'A', plaqué argent | |
| Insigne FAI 'B', plaqué argent | |
| Insigne ACVV BRONZE (disponible au club) | |
| Insigne FAI 'C', écusson de tissu, 3" dia. | |
| Insigne FAI ARGENT, écusson de tissu, 3" dia. | |
| Insigne FAI OR, écusson de tissu, 3" dia. | |
| 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 (aussi disponible au club) | |
| Formulaire de demande pour observateur officiel (aussi disponible au club) | |
| Formulaire de demande pour trophées de vol de l'ACVV (aussi disp. au club) | |
| Formulaire de demande pour records FAI | |
| Formulaire de déclaration de vol par feuille (aussi disponible au club) | |
| ACVV guide des procédures pour FAI certificats et insignes (éd.6 anglais) | |

- 19 **FAI Sporting Code, Section 3, Gliders, 1995** **\$10.00**
now available from SAC National Office

- FAI Code Sportif, Section 3, Planeurs, 1995**
disponible au bureau national de l'ACVV

Please enclose payment with order; price includes postage. GST not required. Ontario residents, add 8% sales tax. Items 1-6 and 13-19 available from SAC National Office. Check with your club first if you are looking for forms.

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 TOL 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

Pioneer II, C-GLUV, 35/1. Fun to fly, excellent shape, all rigging aids, nice enclosed trailer. \$6000 obo. Ron McCullough (613) 547-7802.

Tern, standard instruments, TE vario/audio/speed ring, Radair 10s radio, chute, solar charger, encl trailer. \$4500. Ron Lien (306) 472-5597 (H), 648-2214 (W)

Tern, homebuilt wood glider with enclosed alum trailer. Docile handling with good performance (30+ glide ratio). Radair 10s (updated frequencies), chute. \$4000 obo. Chris Gadsby, (403) 232-4156 (W), (403) 283-2411 (H).

Duster, C-GHEU, 226h, excellent condition. Compass, 3-1/8" and 2-1/4" altimeters, ASI, Genave 100 radio, 2 mech varios, 10ah gelcell battery, Garmin 55 GPS with database, encl metal trailer. \$6500. Harold Weidemann, (403) 474-0139.

HP-11, CF-CMZ, a lovely ship to fly and great for cross-country. Standard class performer for half the price. Full panel incl Varicalc computer. Asking \$12,000. Mike Apps, (403) 436-9003 (H), (403) 435-7305 (W), mapps@nofc.forestry.ca

RS-15, C-FWSE, #43, 873h TT, basic instruments plus RICO vario/audio, encl metal trailer, O2 system with A-14 regulator. Contact Paul 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

ASW-19B, C-FBYK, excellent cond, always in trailer, std instruments with CVS-140 vario, Bohli compass, ATR720 radio, O2, chute, Komet trailer. \$30,000. Walter Ekiert (613) 874-2724.

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

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.

PIK20D, carbon spar, water, O2, cameras, chute, refurbished factory trailer, fresh annual. Successful Sports class record. \$37,500. Brian (604) 467-0020.

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

Ventus B 16.5, #88, 790h TT, vg 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) 271-2654, zabrods@med.ucalgary.ca

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

Nimbus 2B, #156, C-GALA, 340h TT, very good cond, well instrumented, complete custom covers, encl trailer. \$US25,000 Dan Webber (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. Regretfully, I can't fly anymore. Available immediately. Mike Apps, (403) 436-9003 (H), (403) 435-7305 (W), email mapps@nofc.forestry.ca

miscellaneous

Scott O2 mask with hose for A14 system \$175.00

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 (evenings), fax (403) 271-1311 or email zabrods@med.ucalgary.ca

Tost hook for Cessna? We want to install an E-85 Tost hook on a Cessna 150F. If anyone has done this, we would like to get the drawings or STC applicable to the mod. Thanks. Doug Tomlinson (306) 382-2267 or Tomlinson@cgooa.enet.dec.com

Wanted - handheld radio. Contact Darcy Lefsrud (403) 538-3147 (H), (403) 539-8481 (W).

Pneumatic switches for netto on/off etc. \$15. John Firth (613) 731-6997.

CVS 50H Vario Cambridge, 10 knot scale with speed ring & ext on/off dual range (1/2, 1) switch. A simple elec vario. *Newly overhauled.* \$190. **CPT 50MN Vario** Cambridge, 10 knot scale, triple range (1/2, 1, 2), dual sensitivity, TE adjust. No flask req'd. \$390. Cambridge **AV 10 Audio** external audio (no tone on down), plugs into either vario above. \$65. Tony Burton (403) 625-4563.

Canopy and frame complete for Blanik L13, good condition. Marty Slater (403) 481-3866 eves.

Chute, Strong backpack, <3" thick, adjustable harness (ideal for multiuser/clubs), Capewell canopy releases, sheepskin lined, carrying bag. Max wt 225 lbs. New in 1990, now valued more than \$2000 + duty & taxes. Best offer more than \$1500 will include repack. You ship. Dave Kelly (613) 545-9739 dkelly@limestone.kosone.com

Free ads on the Internet, "Soaring Trader" is a web site for soaring buy & sell ads. Reach the world with your ad (photos can be attached to listing). Andrew Staniszewski <http://www.agile-graphics.com/trader> (416) 239-3441.

two place

2-33. MSC is replacing its 2-33s. C-FDWB, #85, about 4000h (available now), and C-FZIQ, #110, 3960h (available on delivery of 2nd Krosno). Both in good condition. Offers over US\$10,000 will be considered. Terry Beasley (613) 675-2664 ph&fax.

Solaire Canada

Ed Hollestelle (519) 461-1464 p & fx

LX-20 The new FAI standard for stand-alone GPS data recorders \$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 \$2795

LX-5000 The ultimate GPS/final glide computer system with moving map display and FAI data recorder \$5995

Rocky Mountain Soaring Centre

is closing due to medical reasons. Selling all equipment and accessories. Aircraft for sale: two Blaniks, Ka6E, LS4a, Pawnee 235, Citabria 7GCBC. For a detailed list call Uwe Klein-hempel at (604) 344-6665, fax (604) 344-7933.

suppliers

REPAIRS & MAINTENANCE

Sunaero Aviation Glider repairs in fibreglass, wood, & metal. Jerry Vesely, Box 1928, Claresholm, AB TOL 0T0 (403) 625-3155 (B), 625-2281 (Fax).

INSTRUMENTS & OTHER STUFF

Instruments for sale — best prices anywhere. Call for list and prices for vario, altimeter, airspeed, T&B, g-meter, compass, radio, etc. Lee (905) 840-2932 H, evenings only.

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 01 16 251-5939.

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



SAC Member Clubs

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

QUEBEC ZONE

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

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

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Quebec, QC G2M 2M5
(418) 843-8596

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St-Laurant, QC H4Z 4W6
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Chicoutimi, QC G7H 5B1

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417 Lakeshore Road East
Oakville, ON L6J 1K1
(905) 849-4596

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North York, ON M2K 1Z9

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Borden, ON L0M 1C0

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Petawawa, ON K8H 2J4
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Markham, ON L3P 1K4
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(416) 490-7156 B

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Bramalea, ON L6S 6A3

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Orleans, ON K1C 1Y6
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(604) 574-4907 F (school term)
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