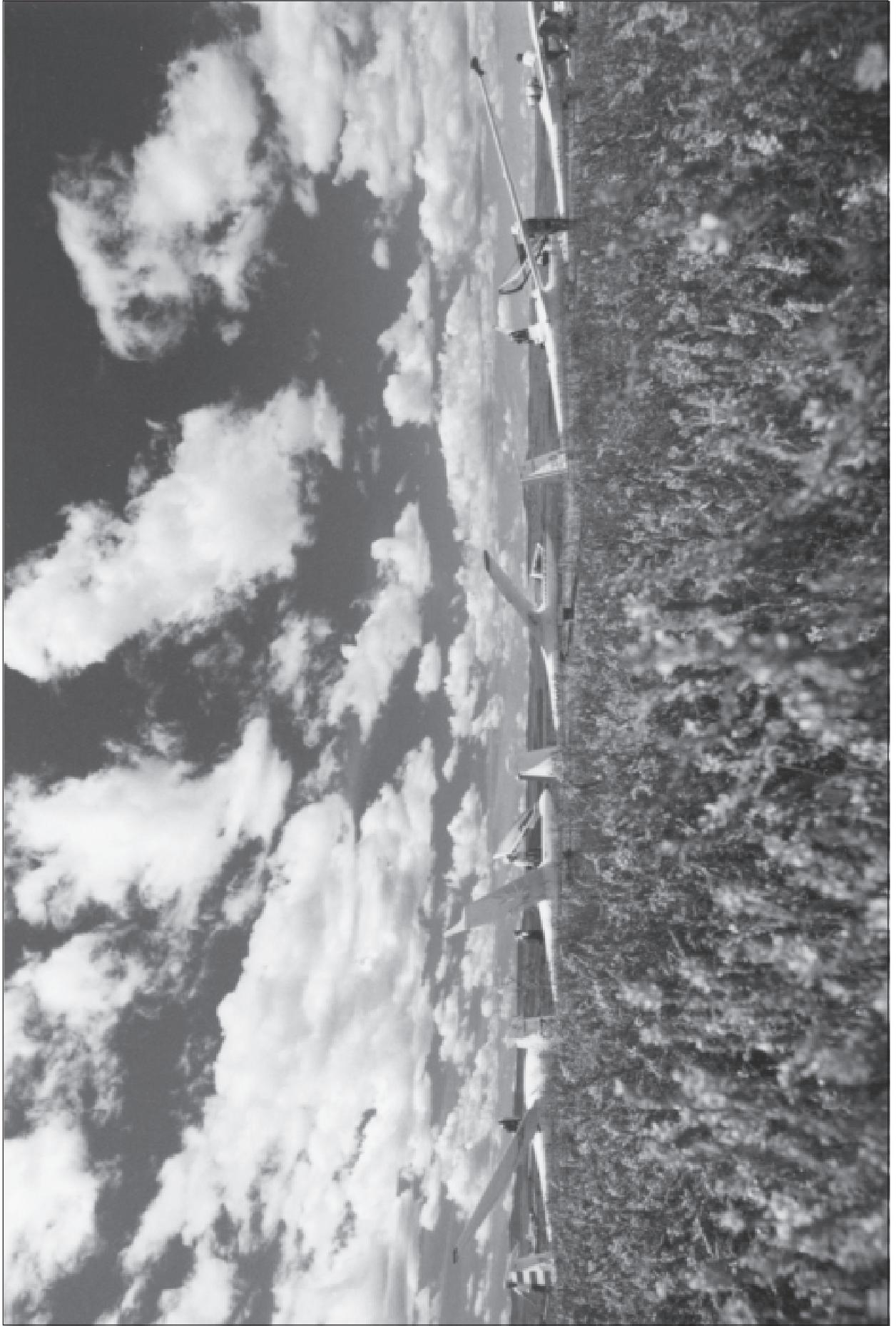


free flight • vol libre



4/05
Aug/Sep



Soaring ...

Observing and participating in the Nationals at Claresholm brought me to the conclusion that the primary activity within our sport is volunteering to help others soar rather than actually soaring oneself. Preparations for the Nationals began more than two years ago when Tony Burton, the contest manager, started scouting for a suitable location. A number of sites were considered and one even tested out by the Cu Nim club. The Claresholm airport met the criteria and the 2004 Alberta Provincial competition was staged there as a test. Many volunteers were needed for the contest so the search for the front line personnel began early and continued until shortly before it began. Dan Cook, Todd Benko, Brian Davies, John Broomhall, Barry Bradley and Ursula Wiese supported Tony in making the event safe and enjoyable. Thanks to all the others who helped to answer phones and run ropes and wings, and a special thanks to all the families and friends who crewed. Your amazing patience with rigging aircraft, hours of waiting in the grid for launches that were sometimes cancelled and your cheerfulness on retrieves from muddy fields will certainly assure you a spot at the top of the list for the next crew selection!

... the meaning of life,

"What is it like? It must be so peaceful up there with just the sound of the wind!" Most of us have heard this comment many times from individuals who are trying to understand why we soar. And it's true. There have been moments in the past 400 hours of my soaring when 'peaceful' would describe the condition in my aircraft. There was the time my friend went up with me for the first time and we shared a strong, smooth and wide thermal with two eagles and a beautiful white, fibreglass 'bird'. Then there was the time my wife took an evening flight with me when the greens and golds of the Cowley hills were still highlighted in white from the hail of an earlier storm and the air was so smooth that there was no sensation of movement for much of the flight. Those moments were memorable but they fall short of being sufficient as life-long motivators.

What is it that keeps us passionate about this sport for a lifetime? I believe one factor is the need to keep learning. It ensures we are ready to respond to the constantly varying circumstances of soaring flight. Another motivator is the opportunity to introduce others to soaring and then to support them in this passion that must be experienced to be understood. The first reason is often recognized by pilots but the second is not. So I'm back to my opening premise. Consider your own involvement in soaring. How many hours have you spent in the air as a solo pilot pursuing your own goals this season compared to the number of hours you have contributed to the administration and operational needs of your club and the training of others over the same period? In soaring, as in life, being needed and appreciated is a prime motivator. Volunteering is a great way to satisfy that need. So let's remember to step back and share the opportunities to help out if we've been serving our clubs for a while and to step forward if it's now our turn.

... and a plug for the future.

The Cowley Fall Camp has proven to be the place to get your Diamond altitude flights and to experience great cross-country wave flights. The camp is open to all 1-10 October and you are invited to attend. For information go to <www.souaring.ab.ca> or contact me at <asc@platinum.ca>.

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4/05 – Aug/Sep

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Le journal de l'Association Canadienne de Vol à Voile

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Cover

Where sky meets ground a line of sailplanes waits to leave one for the other at the Nationals in Claresholm.

photo ©: Maria Szemplinska

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The Claresholm Nats

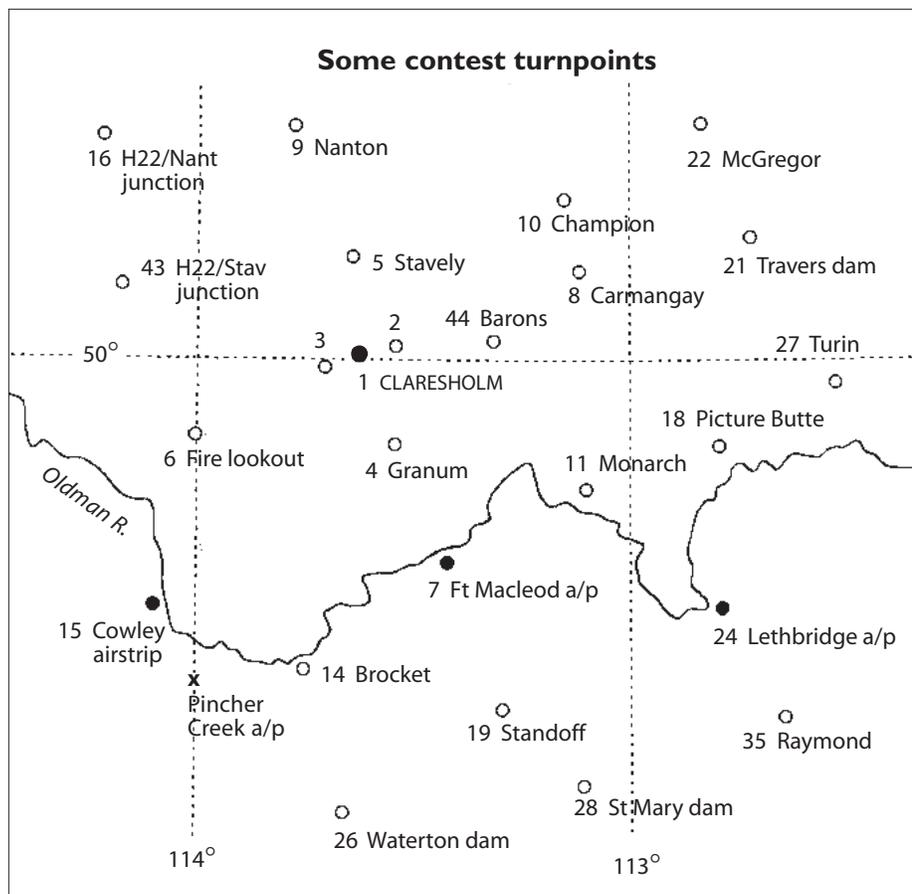
Tony Burton, Contest Manager

AS THE 2005 NATIONALS came to an end, I had an almost empty magazine to fill. So, like or not, this is the Nationals issue. It was about three years ago that the Alberta Soaring Council offered to host this contest, the main reason being that it was the centennial year of the province and I thought that I could get a good chunk of grant money out of the government to put on the show. I volunteered to organize it, having both the time and the experience, having done Swift Current in 1993.

The last time a Nationals was here was in 1983, followed by the Western Interprovincial contest in 1989. Even though I live here, Claresholm wasn't my first choice for a venue. The contest facilities and runways are excellent, but the hills and mountains just to the west both limit the task area and can be a curse for good soaring if wind, subsidence, wave, or its cirrus conspire to limit thermal activity. Last season I looked at alternate sites like the Vulcan and Taber airports, but they didn't have the runways to handle the kind of traffic we generate, so Claresholm it was (also celebrating its centennial). As it turned out, the mountains were a blessing — no other locale would have made a contest possible.

As you saw on TV, we got drenched in early June. The average annual rainfall in Claresholm is 319mm — the first week of June we got 345mm! The next two weeks added a further 46mm, but it was actually drying out nicely leading up to the opening. Then, on Day 1 (28 June), it poured another 44.2mm — and that was it for much hope of soaring over the saturated farmland to the east. Almost all the soaring was done over the Porcupine Hills ranch country and the Livingstone Range valley on the other side or in thermal activity generated from this well drained, high area. Of the forty-four turnpoints on the contest list, pilots got quite used to visiting just two of them on the road north of Cowley.

During the opening welcome speeches at the pilot's meeting that morning, our local MLA said, "Good luck; the rain will stop, trust me — I'm a politician."



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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, processing FAI badge and record claims, and the selection of Canadian team pilots for world soaring championships.

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The Town of Claresholm went all out for us in preparing the airport. In the week prior to the contest, grass got mowed everywhere, the normal runways got swept, and the inside cracked runways (which hadn't been used for years) had all the weeds graded off to make the surfaces landable again. How often do you get to fly at a contest with six runways to choose from! We had free rein of the terminal building with its big meeting area and kitchen and, as the campers and motorhomes arrived, it began sprouting extension cords from every available window to the point where one of the breakers would pop occasionally when Todd-the-weatherman turned on his printer in the scoring office.

There was a decent turnout, though four pilots had to withdraw prior to the start and two didn't arrive until the last few days. We were privileged to have Justin Wills here, an expert world-travelled competition pilot, to provide a benchmark on how it is done. I was worried during the contest that the conditions would be a source of complaint; however, it seemed that since it was evident that the flying would be less than ideal from the outset, everyone seemed generally laid back about the prospects and made the best of what interesting soaring days and western sightseeing was available.

John Broomhall doubled as Pawnee towpilot and scorer. He posted fine daily notes and many photos along with the scores on the Nats website <www.soaing.ab.ca/Nationals>. I'll leave these pages up for some time for those who haven't seen them yet. I'm very impressed with all the major players that volunteered when I asked them and who did such a good job in making the contest run smoothly: John (Scorer), Barry Bradley (Chief Towpilot), who has been towing for fifty years, Todd Benko, now a weather expert having also done the Red Deer Nationals, Brian Davies (Line Boss), and of course Dan Cook, a solid new Contest Director who is still sore from the arm-twisting I gave him in Ottawa at the SAC AGM in March and a few times thereafter. At the banquet, special mention went to young Sonia Hildesheim who kept flight sheets that I could actually read and use later, and to Ian's son, Alan, who ran the "Contest Ground" radio.

And here are the pilots who persevered and succeeded:

<i>Winner</i>	Racing class	<i>Justin Wills</i> (centre in photo below)
<i>Champion</i>	Racing class (Calpa Trophy)	<i>Ian Grant</i> , Gatineau (left below)
<i>Winner</i>	Club class (Calpa Trophy)	<i>Tim O'Hanlon</i> , Cu Nim (right below)
<i>Best novice</i>	(SOSA Trophy)	<i>Ron Cattaruzza</i> , Edmonton
<i>Best flight</i>	Racing class (Dow Trophy)	<i>Justin Wills</i>
<i>Best flight</i>	Club class (Dow Trophy)	<i>Tim O'Hanlon</i> , Cu Nim

It was a fine closing awards banquet at the golf club with great food. Congratulations to all the trophy winners ... and was anyone more surprised than Ron Cattaruzza himself that he was leading the Club class as a novice until the last day? He would still have won but for his big airspace penalty over Cowley one day — I think that more Alberta pilots than just me were rooting for the underdog. ■



Maria Szemplinska ©

How the CD saw it

Dan Cook, Silver Star Soaring

WHEN TONY ASKED ME to be the Contest Director, one of my concerns was not about managing 20–30 contest pilots but more on the technical side of running a contest. I quickly learned that I would *not* be in an information vacuum. Pilots and crews were never too shy to provide advice! That being said, the task committee of Jörg Stieber, Tony Burton, and weatherman Todd Benko provided me the fundamental information and advice. I could not have done it without them. My thanks to all of them.

What follows is my perspective of the contest as CD. For starters, I had approached Tony in the spring about helping out — perhaps as crew or on the line. Somehow I ended up as CD! My feeling is that if we are not willing to step up to the plate, things may not happen at all. So, many thanks to those who did volunteer, especially those who took on the major jobs to support me.

I arrived for the second practice day. It was pretty straightforward — heavy rain followed by more rain. No task was set so I took advantage of the captive audience to have Jörg explain the new rules, the Turn Area Task, and scoring strategy for speed/distance TATs. The mandatory pilots briefing was held that night for 25 pilots and their crews. A discussion on combining 15m and Standard “Racing” class was held as there weren’t enough 15m entrants. The pilots were polled with the majority favouring a Racing class that was also handicapped.

28 June Rain and more rain. No surprise at the pilots meeting when no task was set. The town of Claresholm puts a temporary restriction on water use as the town’s sewers are at capacity!

29 June Finally a sunny and warm day, but the fields are too wet to produce thermals. The task committee is concerned about safe landouts in the muddy fields so all turnpoints selected are airports. We can’t get the “sniffers” to stay up after three tries so we scrub the day at 1545.

30 June An interesting day — I thought I had everything well organized. The task committee selected two tasks to cover north and south areas. Wave effect from the mountains creates a cloud deck that blankets the northern task. Todd notifies me we have reached trigger temperature for thermals to start. I launch a “sniffer” and he reports getting average climb of 3 knots. Cloudbase also appears to be 6500 feet (3200 agl). I launch the first four of the Racing class but all return to the field. We wait for about a half-hour for conditions to improve, and then as cu start to develop rapidly, I launch five of the Racing class. Dave Mercer reports 5 knots lift passing through 3000 agl. (Dave told me he found 8 knots to 10,500 asl later on.)

I ask Brian (the flightline boss) to launch the rest of the Racing class. The first four pilots of the class who landed back indicate they are not certain they want to immediately launch. When they hear that the start gate will open in 15 minutes there is a scramble to grid their aircraft. My lesson learned that it is best for the CD to tell the pilots on the radio or at the grid meeting what is going on rather than assume they will know when they see the rest of the class go.

Four gliders make it to the ring of the first turnpoint at Standoff, and three (Ed Hollestelle, Dave Mercer, and Al Stirling) land back at Fort Macleod airport. The day completely dies within the first hour. Not enough distance is made for a day for either class. Dave Springford lands out on the Piegan reservation after the first turnpoint. His landing is reported to the band police as a crash. Dave has to explain to five band policemen that landing in a field is a normal occurrence as they do not want him to move F1 until Transport Canada gives the okay.

John Mulder outlands near Granum. Instruction to crew: hurry, the mosquitoes are trying to carry the glider away!

1 July Todd’s weather briefing is so bleak that the task committee could not set a task. High cirrus and 70 knot winds at altitude make the day impossible to judge and we postpone a task selection until noon. The wind dies down at noon and we set two tasks, one north and one south. After we grid, cbs to the north and wet fields in the blue to the south make these tasks unattractive. The task committee sets a third task west towards the mountains to take advantage of cloud streets that are developing there over the higher, dryer ground. It is two laps around a small triangle (Hwy22/Stavely junc. [43] – Stavely [7] – home) and is “modified”, meaning that any



John Broomhall



John Broomhall

It hadn't been this wet in southern Alberta since Noah ran aground.

number of turnpoints may be dropped in turn from the sequence to shorten the called task and the pilot can still earn speed points.

Everyone is launched in 45 minutes. Both laps are completed only by Dave Mercer, Dave Springford, and Justin Wills in the Racing class; others and the Club class, which started last, elect only once around or fail the attempt to get to 43 again. Climbs to 12,000 feet are reported in a great cloud street going northwest into 43 and there are no landouts. At least 20% of each class fly the minimum 80 kilometres for a contest Day 1, though highly derated for Club class.

At first it didn't look like the Club class had a day until Struan Vaughan discovered that the scoring program was assuming that the completion of the first lap constituted a finish with speed points. He and Rolf Siebert were not being credited with distance along the fourth leg towards the Hwy22/Stavelly junction again. The program gave them speed points for a greater score but the resulting distance became less than 80 km and too few pilots to make it a day until the scorer adjusted the input data.

2 July Overactive weather was forecast but likely to move to the north of us. Tasks are set and gliders are rigged. While I was having lunch in the contest briefing room in the terminal I could see to the east that the gliders were heading out to grid. Before I finished my sandwich, I saw the gliders being hauled back to the trailers. I looked out the terminal door to the west and saw that the sky was *black*. Ouch!

I dash out to the line to see Todd and Brian directing gliders back to their trailers. I could see the black sky moving in our direction and I asked Todd what the faint white streaks over the Porcupine Hills were. Hail, he says! I headed off to warn others and suggested to the Chief Towpilot, Barry Bradley, that he take the towplanes south to wait out the storm. He did (first to Fort Macleod and then west to Pincher Creek to avoid the oncoming storm – see *this account on page 10*). Thankfully, we got just a small amount of pea-size hail and rain. No Contest.

3 July We had a safety talk each morning by different pilots. Justin (a UK 9000 hour pilot living in New Zealand and featured in the video *Windborn*) gave a great talk this day on contest safety — about establishing a personal comfort zone, recognizing when safeguards are failing, and applying personal discipline to take action when you are out of your comfort zone (see *page 18*).

The weather looked good but there was a wind shear forecast at 3000 agl. The trick would be to not launch early and hope there would be enough convection to climb through the shear. Many pilots weren't able to get through it and struggled with relights (the winner for the day took three launches!). Once the recycling thermals became more stable, everyone got a start and many got around the task (Hwy22/Stavelly junc. [43] – Turin [27] – Monarch [11]) with good speed and distance.

The conditions are very good again into the hills to 43 but weak out to the southeast despite the good-looking cu. Most pilots elect to just nick the large arcs around the last two turnpoints. Many pilots report memorable flights well into the Livingstone Range where the lift was

strong despite the rugged, inhospitable terrain below. Tony thought he had great speed points by doing a blistering out and return from the first turnpoint but he forgot all about the minimum time and his 105.2 km/h got scored at 38.4! He was heard muttering something about a "brain vapour lock". Contest Day 2 complete.

4 July The day showed promise and we set several task options again for the day. Bands of cirrus moved in and slowed the heating. At 1230 the sniffer indicated it was possible to launch. Most got a start but a few had to return and re-launch. Lift conditions started to cycle and reports of landouts came in. There is a mass landout at Cowley when pilots fly in the downwash from developing wave in the valley. A couple of pilots reported connecting with weak wave or ridge soaring and some made it around the 250 km task; not without difficulty however. Contest Day 3.

On winning the day in the Racing class, Justin said, "How can there be more sink than lift; the conditions [down the Cowley valley] were impossible to sort out."

5 July The task committee tried hard to set a task away from the mountains (fatigue factor) but wave cirrus developed for a couple of hours in the morning, shading the ground and reducing the surface heating. The only areas working were the Porcupine Hills again and a task was briefed on the flightline for that direction. However, we could not get a sniffer to stay aloft and the day was cancelled at 1545.

6 July During the pilots meeting I asked Justin to talk about his flight the day before when he took a launch after I called the day. He took a 3000 foot tow and managed to work the thermal and wave conditions over to the Great Divide at 12,500 asl. It was an impressive flight and he said he could have made a final glide to Invermere but returned to Claresholm.

Again, a Chinook Arch developed over the contest area in the morning and we delayed any decisions until afternoon. Al MacDonald, a local parachute equipment manufacturer and rigger, gave an excellent briefing on parachute safety in the morning. Weather was improving by noon so I set grid for the day but the winds had picked up to 15 knots. I launched two motorgliders to check out the lift potential. Wave was developing with rotor clouds at about 3000 agl. Surface winds started to gust to 20 knots and local motorglider pilot Vaughan Allan radioed that the winds were 47 knots at 11,000 feet. I cancelled the day around 1400 — time to hit the tourist spots, and many others did also.

7 July We needed one more contest day to make it official — no one was feeling the pressure! Todd gave a weather briefing and indicated the day had potential. There would be the wind shear at 3000 feet that had plagued us for many days. It would be difficult to climb through this height, as the thermals would be broken up. However, once through this barrier, the lift was good. I launched a sniffer and he returned. We wait until about 1430 then launch another and he is able to get reasonable 3 knot climb, so I call a pilots briefing while speaking to the task committee. We set a task to take advantage of the Porcupines, as this was the only area working with cu bases around 5000 agl. As I was briefing ⇨ **p21**

A 300 km task for towplanes

John Broomhall, Edmonton Soaring Club

TROUBLE WAS BREWING over the Porcupine Hills on Saturday morning, 2 July. The task committee at the Claresholm Nationals had reviewed the weather and set tasks, and the fleet had pulled out to grid on runway 33. But, those pesky clouds over the Porkies kept getting darker. It was clear that any chance of a task start in the next few hours was gone, and the threat of some severe weather had the fleet scrambling back to their trailers to derig and wait out the storm.

The threat of hail had Dan Cook (Contest Director) and Barry Bradley (Chief Towpilot) worried about the towplanes, so the towpilots scrambled in the direction of brighter skies to the south as there was no hangar space on site. Fort Macleod airport was the destination. The three Scouts (one from Cu Nim, one from the Alberta Soaring Council, and one privately owned by Rob Riege) had long departed when I left Claresholm in the ESC Pawnee on a straight-out departure on runway 09 with rain already starting.

Leg 1 – Claresholm to Fort Macleod – 73.6 km

Ted Mani, Hal Werneburg, and Rob were already well on their way ahead of the storm, while I flew down in light rain, looking over my shoulder at the approaching storm. Fort Macleod was in the sunshine with light easterly winds after the half-hour flight from Claresholm. The airport manager was surprised to be awoken from his nap on the couch in the terminal building by the fleet of arriving towplanes. It didn't take long for the storm to

catch up with us. The clouds to the north got progressively darker. Where to next? Lethbridge to the east, or Pincher Creek to the west? The storm was tracking to the east, and it looked a little clearer to the west, which would put us behind the storm, but what was behind it? By the time the decision was made to head to Pincher Creek, the winds had shifted and were out of the north and gusting strongly.

Leg 2 – Fort Macleod to Pincher Creek – 91.2 km

I was first off in the Pawnee and had my hands full with the crosswind. After skittering across the runway sideways on the take-off, I radioed back a warning that it might not be advisable to launch the Scouts, but it was a done deal — nobody had wasted time getting airborne.

A high stratus deck had extended south from the storm over the path to Pincher Creek, but there was no rain from it thus far. Rob pulled ahead with his Scout with a constant speed prop, the rest flew in loose formation separated by a few thousand feet horizontally and vertically. The storm cloud overhead generated massive lift as we went under it.

It was raining lightly by the time we arrived at Pincher Creek, along with strong quartering crosswinds from the northwest. After landing, we managed to get two of the Scouts into an open hangar, and tied the Pawnee down outside. It was now raining quite hard, we had arrived just in time. => p20

The storm advances on the Nationals towplanes, three Scouts and a Pawnee, at Fort Macleod where they had flown south to avoid it at Claresholm.



John Broomhall

2005 CANADIAN NATIONAL SOARING CHAMPIONSHIPS		1 July			3 July			4 July			7 July			total score						
		pos	km	spd	pts	pos	km	spd	pts	pos	km	spd	pts							
		1.5 h minimum			2.5 hour min			2.5 hour min			1.5 hour min									
RACING CLASS		hand.																		
1	Justin Willis	DD	.916	2	210.4	100.7	541	1	263.8	98.8	1000	1	246.4	76.3	1000	2	161.1	78.6	527	3068
2	Ian Grant	IN	.916	10	70.1	46.7	122	6	202.0	80.8	695	2	246.4	69.1	943	1	175.2	85.9	600	2360
3	Dave Springford	LS-8	F1 .915	3	178.3	84.7	423	5	233.3	78.1	719	4	192.2	59.1	709	6	133.5	61.7	366	2217
4	Ed Hollestelle	LS-8	A1 .915	8	80.4	53.6	140	4	208.1	83.2	732	5	176.2	64.3	706	5	130.4	76.4	457	2035
5	Jörg Stieber	LS-8	JS .915	4	117.0	78.0	290	10	221.9	0.0	382	3	219.1	72.1	889	4	164.4	76.9	t472	2033
6	Dave Mercer	Genesis-2	DM .929	1	219.8	111.5	600	9	226.4	0.0	390	7	174.8	0.0	495	7	120.7	57.4	314	1799
7	Walter Weir	ASW-27B	2W .880	7	81.4	54.3	141	7	201.9	80.8	694	8	144.9	0.0	410	3	126.0	84.0	z488	1733
8	Roger Hildesheim	SZD-55	AT .931	5	104.6	69.7	236	3	219.8	81.9	737	6	177.4	0.0	502	10	2.1	0.0	4	1479
9	Jerzy Szemplinski	SZD-55-1	XG .931	6	84.4	56.3	149	2	243.4	90.2	870	9	136.1	0.0	385	8	6.5	0.0	12	1416
10	Willem Langelaan	DG-800	OX .890	8	80.5	53.7	140	8	191.5	58.9	435	11	21.1	0.0	60	11	dnc	dnc	0	635
11	Peasley/Stirling	ASW-20B	1 .900	11	8.8	0.0	15	11	140.7	56.3	319	10	65.5	0.0	185	9	4.3	0.0	8	527
CLUB CLASS		hand.																		
1	Tim O'Hanlon	SZD-55-1	TJ .931	6	51.0	34.0	44	2	214.0	60.7	981	4	151.0	0.0	738	1	132.5	75.8	480	2243
2	Ron Cattaruzza	SZD-59	KM .975	1	117.9	67.1	120	1	185.7	70.5	1000	5	170.6	50.8	z665	6	120.4	49.2	312	2097
3	Larry Springford	ASW-20	S1 .900	2	108.6	72.4	115	5	207.1	0.0	672	2	141.4	60.0	945	8	16.0	0.0	33	1765
4	Phil Stade	Std Jantar	FG .970	8	15.2	0.0	13	3	173.4	63.5	881	9	90.3	0.0	441	3	136.7	63.7	424	1759
5	Sruan Vaughan	DG-400	F9 .883	3	82.8	0.0	72	6	156.9	37.1	531	3	155.9	50.5	925	11	dnc	dnc	0	1528
6	John Mulder	Std Jantar	JJ .970	4	73.6	40.1	66	4	193.7	48.6	779	10	40.6	0.0	198	5	100.7	61.6	338	1381
7	Rolf Siebert	DG-800A	UO .850	5	65.6	0.0	57	10	20.7	0.0	67	1	133.8	66.9	974	7	61.1	0.0	128	1226
8	Burgess/Holt	ASW-19	D2 .970	6	50.3	33.5	44	9	88.4	30.1	287	7	124.6	0.0	609	9	0.0	0.0	0	940
9	Peter Timm	304CZ	CZ .950	10	7.8	0.0	7	7	138.6	0.0	450	11	-	-	0	2	145.7	69.0	471	928
10	John Gruber	Std Cirrus	JM 1.000	12	0.0	0.0	0	11	0.0	0.0	0	6	123.6	39.3	660	10	-	-	0	660
11	Orlan Dowdeswell	DG-400	DG .883	11	6.1	0.0	5	12	dnc	dnc	0	8	98.8	0.0	483	10	-	-	0	488
12	Tony Burton	AC-4C	E2 1.185	9	10.7	0.0	9	8	96.0	38.4	347	11	-	-	0	9	0.0	0.0	0	356
13	Alan Hoar	Pik-20E	9L .925	13	dnc	dnc	0	12	dnc	dnc	0	11	-	-	0	4	104.0	61.3	343	343

Hurry up and wait.
Ian Grant's crew;
son Alan and
brother Don on
standby.

Ian became the
Racing class cham-
pion with a 1st
place finish on
the last day.



John Broomhall

Scoring penalty codes:
 "t" turnpoint entry error – 50 pts (JS day 4)
 "z" restricted airspace – 1 point per 2 sec KM – 335 pts (day 3), 2W – 10 pts (day 4)

Scoring distance & speed handicapped in both classes.
 A dash in the distance column indicates no start; a 0.0 is no achieved distance after a start.

Task setting and scoring

Jörg Stieber, JS
SAC Sporting committee

THE 2005 NATIONALS WAS OUR FIRST EXPERIENCE with the Turn Area Task (TAT) at the nationals level. Instead of turnpoints with the standard 500 metre radius “beer can”, the TAT features large circular turn areas centred on a “turnpoint”. Pilots have the option to turn and begin the new task leg anywhere within the turn area. In other words, if conditions are unfavourable, one can just nick the area or, if conditions are good, one can fly far into the circle, following cloudstreets or terrain features. The track log fix where the pilot turned is used to determine the distance for scoring.

The radius of each individual turn area is set each day as part of the task. Small turn areas (the minimum radius is 2 km) will give the task the character of an assigned task, where the whole class follows the same course, while setting the minimum radius on a single turnpoint gives it the flavour of a mandatory turnpoint. Setting large turn areas will give the task the character of a pilot optional task where the contestants fly in the same general area but can largely choose their own route.

The TAT with large turn areas (about 30 km) provides a significant spread between minimum distance and maximum distance (typically around 200 km). This makes it easy for the task setter to come up with the right task for the day. There is no need to set alternate tasks of different lengths in the same area. However, alternate task options should be set to cover different sectors of the contest area.

To maximize participation and to balance the classes, it was decided to establish two handicapped classes under the Club class rule: “Racing class” which was basically a combined 15m and Standard class with a fairly narrow handicap range and “Club class” with gliders ranging from a 12.6m Russia to an 18m DG-800. To accommodate this wide range of handicaps we made frequent use of “modified” TAT tasking which allows pilots to return from any turnpoint and still get their speed scored.

Based on an extensive Roundtable discussion among contest pilots, we also decided to go back to a combination of speed and distance scoring after five Nationals of distance only scoring. In order to be able to use existing scoring software, speed and distance points were calculated using equations from the old Pilot Selected Task.

The contest area to the north, east and south of Claresholm is level farm land with ample opportunities for off-field landings. To the west is the ranching country of the Porcupine Hills with the front ranges of the Rockies (the Livingstone Range) behind them.

Initially, we set two task alternatives, one to the northeast, the other to the southeast. However, on most days development over the plains was slow due to the large amount of water still on the ground from record rains. After having saved two days by improvising a hill/mountain task on the

grid, we routinely set one task option to the west. As it turned out, of the four contest days, we had two tasks set entirely in the hills and mountains, and two tasks with at least one turnpoint in the hills. The transitions proved difficult because they were associated with a significant change of soaring conditions.

The use of *SeeYou* software as a tool for task setting was a great help and time-saver. Besides the nominal turnpoint to turnpoint distance, *SeeYou* instantly provides the maximum and minimum distances for Turn Area Tasks.

I believe the pilots were generally happy with the options provided by the Turn Area Task and also with the specific tasks during the contest.

Lessons learned

The modified task option proved very valuable in setting adequate tasks for the Club class with its large handicap range. However, since the pilots have the option to cut the task short, the minimum task time, when less than 2.5 hours, can become a crucial factor in the devaluation of the day. Certainly, a day should not be devalued just because one pilot decides to return home early after the first turnpoint.

The calculation of speed and distance points according to the PST equations made it difficult for pilots to decide whether to maximize distance at the expense of speed or to fly shorter distances in order to maximize speed. As a rule of thumb, maximizing distance as long as there is no significant deterioration in conditions will typically yield the best score, but the exact answer is only known after all the flights of the day are scored. With pure distance scoring the dilemma does not exist since maximum distance will always translate into maximum points — the beauty of a one-dimensional scoring system!

If we want to continue with speed/distance scoring we should adapt our rules and scoring software to more recent concepts as they are being used in the USA or in Europe. These concepts tend to employ speed-only scoring for finishers and use distance only for landouts. In other words, best speed will yield best score. Pilots who land out will get scored according to their distance with the best distance ranking highest behind the slowest finisher.

Daniel, my trusty crew and I set aside some time after the Nationals to explore soaring in Invermere, BC where we planned to meet up with Dave Springford (F1).

On the way to Invermere we stopped in Cowley for an interesting flight. Though the wind was very strong, the wave that had been reported earlier was too broken up by thermals to be accessible. ⇒ next page

Western impressions

Ian Grant, IN
Gatineau Gliding Club

UNTIL NOW, I'd never spent any time out west in "God's Country" where soaring conditions are the stuff of fable. The Canadian National Soaring Championships does not go west very often and during those years when it has in the past, I couldn't attend because of a lack of time, cash, and/or a vehicle and trailer that were up to the trip. So when the 2005 Nationals were fixed for Claresholm, Alberta under Tony Burton's leadership, I marked it on the calendar as a "must do."

Preparations for Claresholm included disposing of our 13-year old vehicle and purchasing a new minivan. My brother Don joined us from Scotland to crew, as he has in past years. So with a great deal of anticipation he, I and my son Alan set off from Ottawa onto the Trans-Canada Highway with my Discus 2b India November in tow. When we arrived four days later I was happy to meet many old friends including Dan Cook who used to fly at Gatineau. Dan did a great job as CD with excellent support from members of three Alberta clubs for weather, towing and other necessary tasks.

My first impressions of Alberta were how blue the skies were and how bright the sunlight, which might have something to do with the fact that Claresholm's airfield elevation is 3353 feet, so the sunlight needs to shine through 20% less atmosphere than in Ottawa before it reaches your eyes.

My second impression, when we got airborne on the first practice day, was how emerald green and moist the fields were around the countryside. They resembled rice paddies but with wheat sticking through the water instead. The locals assured me that this was the result of a very rainy early June and was not typical of the Alberta prairies.

In Invermere Daniel enjoyed several long flights in the local PW-5 and the Astir.

The weather was a bit mixed in the first week, however in the second week we had seven good days in the eight day period from 17 to 24 July.

Tasks are typically flown on the east side of the Columbia Valley. The task area goes a bit more than 160 km north where the valley becomes unlandable because it is completely taken up by Kinbasket Lake. Flying the 100 km up to Golden is pretty much a standard run. There are only a few suitable landing fields on this leg but this is not a problem since the typical working band is 7000 to 9000 feet above the valley floor, however it requires some planning.

To the south the task area extends to the border, approximately 180 km south of Invermere. Going south, the valley widens and offers ample opportunities for off-field landings in the form of hay fields and airstrips. Dave and I had the opportunity to explore the entire task area. On some days,

Although the unseasonable weather limited the contest to four days, the days we flew were memorable. I experienced some super thermals by eastern standards and climbed higher than I ever have before. At one point WinPilot was giving me warnings about the Class B airspace overhead at 12,500 feet, and the outside air temperature gauge gave me reason to think about the water ballast freezing. Most memorable of all was flying over some of the more celebrated soaring territory in Canada and enjoying the incomparable scenery of the Cowley valley, the Porcupine Hills, and the Livingstone Range and the Rockies to the west.

I must have done something right during these scenic flights, or at least made fewer mistakes than others, because I recovered from a discouraging tenth place result on Day 1, to place second on Day 3, then first on Day 4, to gain second place overall in the Racing Class behind well-known pilot Justin Wills from New Zealand. As a result I was named Canadian Racing Class Champion for 2005, which was the icing on the cake on a fantastic trip. My first Nationals was in 1986 at Arthur so there might be a message here about persistence and the benefits of experience.

I'd like to record my thanks to Tony and Dan for their leadership of an enjoyable event. I'd like also to thank for their support my wife Joan, Don in his dual capacities as very capable crew and bagpiper-in-residence, and my son Alan who is 14 and ten flights or so short of first solo at Gatineau Gliding Club.

Looking forward to seeing old friends in 2006 at SOSA! ■

thermals went as high as 13,500 (though in many areas the ATC ceiling is 12,500) — oxygen is certainly a big plus! It is not rare to find 8 to 10 knot thermals. However, we found carrying more than 60 kg ballast wasn't advantageous because the cores were so narrow.

Invermere is a paradise for pilots who love to sleep in! Due to daylight saving and its location close to the western edge of the time zone, local time is almost two hours ahead of sun time. The westerly facing slopes also take some time to heat up; the earliest take-off recorded in my log book was 1 pm, though I was told that very good days start at 1100. Luckily, soaring conditions can last till late in the evening. We experienced good lift along the west facing slopes that allowed one to sustain height on final glides even after 9 pm.

Besides the excellent soaring conditions, and the breathtaking scenery and beauty of the Rockies, it is the wonderful atmosphere at the Invermere Soaring Centre that has made this soaring vacation so special to me. ■



F9 moves to the grid. The Porcupine Hills in the background and the Cowley valley beyond was to produce almost all the flyable conditions throughout the contest.

Don't shoot the messenger. Todd Benko did a very good job and prepared excellent presentations of the daily weather. The contest suffered from weak lift often combined with stronger winds within the lower convective zone that made getting away from the airport difficult sometimes (the score sheet shows some unusually low scoring distances). Upper wave cirrus in the morning also delayed heating on the last few days.

photos on this page by John Broomhall

A very stormy wave day in ranch country during the contest. The scene is looking west from the south end of the Porcupine Hills, east of Cowley.

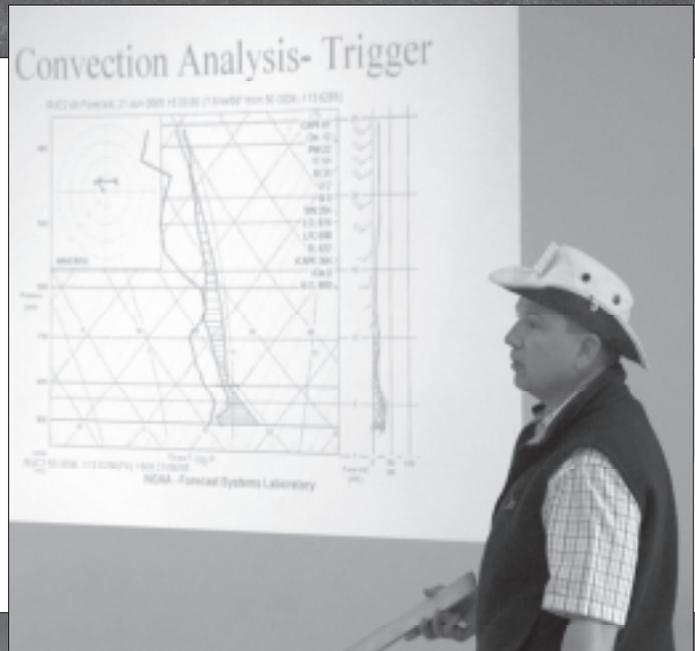


Photo gallery

Dan, Jörg, and Tony, devising a task C on the line, try to find a turnpoint to the south that has any relationship to indications of lift in that direction.



Henry Wyatt, Ted Mani, and Hal Werneburg, members of the *Seniors Travelling Towpilot Society*. Along with CTP Barry Bradley, their average age was 70, with Hal pulling down the average.

photos © on this page by Maria Szemplinska



A major early job for pilots — finding enough dirt to fill the wheel and leg-eating badger holes around the trailer and glider tie-down areas.



Sassy, Dave Springford's dog, was on high alert during the whole contest tracking the resident hawk food, the Richardson's Ground Squirrel (aka gopher).

In this case, a surprisingly tame weasel was busily checking out the grid one day, and was quicker than Sassy.



Silver Star Soaring

Ken Armstrong, Victoria

a club review by an itinerant motorglider pilot

WHAT'S SO SPECIAL ABOUT SILVER STAR SOARING? Members tell me it's the laid back, friendly atmosphere. When my wife Linda and I arrived at their Vernon airport location, the members immediately began reaching out to us and welcoming our presence.

Soaring operations at Vernon Regional Airport carry a checkered past according to club president Brent Redding. There was a time past when testosterone and attitude created a rift and the earlier club died. When Malcolm and Ursula Rhodes moved to Vernon in 1994 they found that there was no club and absolutely no interest in gliding. To spur interest, they displayed their LS-4 at some airport gatherings, and when previous Silver Star member Hans Kruiswick visited the field from Kelowna they got together to discuss future potential. In combination with local dynamo, Dave Crerar, the foursome forged forward to create the club that now flourishes.

They claim one strength of the Vernon club is the small size which gives cohesion and the opportunity for everyone to get to know each other. Moreover, the club gliders are inexpensive and sufficient, and the additional privately-owned aircraft take the pressure off the club assets for training or personal fun flying. The club is less regimented than larger clubs as there are fewer diverse opinions. Also the easier going personalities of the Okanagan Valley folk results in minimal friction so everyone can have fun.

The club has about a dozen members and they all took turns coming up to us under their operations enclosure (tent) near the threshold of runway 23. Karl Soellig, the club secretary/treasurer, owns a PW-5. Karl jokingly states this club is differentiated from the others as it is the poorest... it doesn't own a towplane but rents the services of a private owner, David Crerar, and pay by the minute (\$3.20 from take-off to towplane landing). While this isn't cheap, it absolves the club of all tow operations such as maintenance, regulatory paperwork, pilot training and proficiency.

David adds that Silver Star began in 1998 with only five members. At that time, they bought the Blanik L-13 and the Schweizer 1-23. The club doesn't charge members for glider time, but assesses a yearly membership fee of \$380 to cover all the costs normally associated with club operations.

A pretty Pilatus B-4 single place belongs to the two club chief executives, Brent and Mike Erwin, and they observe

that the few members owning their own gliders take the pressure off the club gliders during peak use so that all the members get maximum opportunity to fly. Malcolm has flown a number of 400 and 500 kilometre distances from Vernon in the LS-4 and is the club's most active and accomplished cross-country pilot.

Nelson Pigeau is the club CFI and Dan Cook, SAC Safety Officer, is one of the other instructors. Dan recently retired and moved to Vernon, leaving the Gatineau Gliding Club which has one of the best safety records across Canada (he also served there as the Safety Officer). Aaron is a new student pilot and, with Heath Anderson, had the majority of the flights during my visit. Dave Collard also flew an area checkout as a new member, having belonged to Regina in the distant past.

Not everyone got a chance to fly (the lift wasn't deemed exceptional that day), so the private gliders remained tied down or in trailers while their owners helped with the launch and retrieve operations for training and recurrency purposes. That's club spirit. This continued until the skies, which were pretty well filled with convective clouds, became quite angry with cb's and thundershowers associated with a cold front that closed down ops for the rest of the day.

Bernie Boehnke was also on hand, currently renewing his instructor licence. He provides AME services for the club as well from his operation at Vernon's airport.



Under the awning: Silver Star activities at Vernon airport.



In Blanik: Dan Cook (rear), new member Dave Collard (front), Brent Redding (president), Aaron Scud (new member).

The club faces challenges in the area as homeowners complain about noise and the “visibility of operations”, with the result the continuation of operations at the airport were significantly threatened recently. Although the storm has passed for the moment, with the town fathers even talking about extending the runway for larger air evac flights, these close-to-town airports will always be under pressure. This is a common problem in many locations as real estate values tempt town officials to consider selling airports for the higher revenues of real estate development and subsequent municipal taxes. Thankfully, intervention and presentations have forestalled any airport closures for the time being.

Towpilot John Jorimann, with a 150 hp Champ, is here for fun too. The aircraft is owned by Alison and Dave Crerar, and the Rhodes family claims the club is “awash with their generosity.” Dave has been involved in aviation for a lifetime and he is well-liked by locals. A significant part of the club’s success is the tendency for the club to pull together. Without dedicated volunteers these soaring clubs cannot function. For example, in 1975 Malcolm showed up on the Port Alberni field, received the cold shoulder and gave up on learning to fly gliders at the time. The same thing happened a few years later at Hope when he showed up at the Vancouver club and was rebuffed.

A couple of members observed that soaring in general can attract and has members with an elitist attitude that is not conducive to encouraging new people. These same people also negatively impact safety by not passing on the lessons they have learned as they often don’t participate in the overall support of the club — they simply use the club’s assets for their personal pleasure. In a recurring theme that I heard at Hope as well, it seems that those who get the most out of soaring clubs are those that enjoy the camaraderie of their fellow pilots and support crews during the social interactions that ensue. Soaring is great, but the social events add to the flying pleasure such that the sum of the components goes well beyond the simple airborne activities.

Soaring assessment During my week in Vernon on a Rotax engine course I did not have many opportunities

to sample the lift and although the wetter than normal spring provided lots of instability, the cloud cover was overcast by afternoon. The cb’s popping off here and there through the cloud cover were kind of unattractive — unless you count the cumulus mammatus and double rainbows. Nonetheless, I have soared there on a previous visit and found the convection quite strong and with the rather high bases in the 8-10,000 foot range there was lots of safety for returning to the airport or going cross-country. The afternoon lift was always adequate to keep my 28:1 *Xtreme* airborne until late supper beckoned. While not as optimal for cross-country record flights as Invermere’s taller terrain, the Okanagan Valley is quite long and extends well down into the USA.

As is the case with most mountainous terrain, wave and ridge soaring are rather common conditions to add variety to convective activities and there are a number of airports throughout the valley to accommodate outlandings or breaks for a snack; of course, this is more readily accomplished with motorgliders.

Area attractions The valley is populous, being home to cities/towns such as Oliver, Penticton, Kelowna, Vernon and Armstrong (no relation...) The area is very pretty with 6000 foot mountains bordering the valley and snow capped peaks in the background. Kalamalka Lake and a myriad of water and hiking activities in the area make Vernon a popular travel destination. Summer weather tends to be warm/hot and quite dry. This has attracted many vineyards to the area and there is a large cottage wine industry and plenty of sampling. Boating and golf are also popular and abundant.

Soaring salutations One of the friendliest soaring clubs in Canada welcomes visitors and new members and, for those not prepared to put up with lineups at the soaring sites that attract the record seekers, the Silver Star Soaring bunch offers a great location to learn and practice all manner of powerless flight. See you there.

Malcolm’s email: <mrhodes@workshopbc.com>



Miscellany

About waves, blondes, thermals and black hair ...

The IGC discussion e-group was quite active recently when someone brought up the idea that there should be a separation of world distance records between those flown in wave and thermals. Hans-Werner Grosse is all for it — others had a real problem in defining a thermal-only soaring performance (what percentage circling, etc, etc.).

Oswaldo Ferraro, in Argentina, wrote:

I'll try to explain why I am not in agreement with different records for wave/thermal/ridge etc. Even when I understand different positions and have a lot of respect for opinions coming from famous pilots, with very deserved fame all around the world, I'll try to give — always my modest opinion — technical reasons and, why not, a little humour. With respect to technical reasons, I believe there are no fair definitions and it will be nearly impossible to find one. For example, will a pilot who flies a cloudstreet need to turn to meet the "thermal record" rules?

I'm a 99% thermal pilot, but this is because I came from flatlands and I don't feel it is unfair that other pilots make records in wave. If I like records and fly faster, I don't believe there

should be a record for "my" lands... I believe I should go to attempt records at wave areas. It is the same with cars. Those who attempt world record speed in cars, are not asking for a speed record in "city traffic" if they live in big towns — they go to desert areas like Salt Lake.

In a humorous touch, I note that each time somebody asks me, "What do you like, thermal or wave?" I feel the same as if someone asked me, "What do you like, blondes or black haired women?" I used to answer always the same to this second question: "I like *beautiful* women!" It does not depend on hair colour, it just depends on beauty.

Taking the above example in mind, I believe I should answer that first question: "I like good flying conditions". Because the sport is the same, it is just gliding. Some time ago while zapping the TV I suddenly found good support for my theory in the Miss Universe selection. They have chosen only one girl as Miss Universe. There was no blonde Miss Universe (thermal), a black haired Miss Universe (wave) or a red-head Miss Universe (ridge?). The jury ruled on beauty and not on hair colour! Therefore we should focus on *gliding*. Beauty has different aspects, but it remains beauty. In the same way, soaring has different aspects but it remains ... also beautiful.

Have nice flights, wherever they are!

Bernald Smith (USA) responded with:

I think Osvaldo has really hit upon it. We should have awards for the shortest prettiest blonde (longest thermal flight with only one turn), tallest prettiest blonde, (longest thermal flight with the most turns), skinniest prettiest blonde (longest thermal flight with minimum radii) and fattest prettiest blonde (longest thermal flight with maximum radii). Of course that's just a start; we need similar awards for brunettes and redheads, and how about the little, old grey-haired women; they should receive an award, too. The counterparts for soaring awards boggle the mind!

(Bernald Smith, who lost his record for longest flight out of the San Francisco Bay Area more than 40 years ago, is married to a little old grey-haired pretty lady.)

New method of deturbulating the boundary layer gives major breakthrough in skin drag reduction

Turbulent energy losses on wings in the laminar/turbulent transition area has been reduced with the use of various geometries of turbulator tape that control the airflow separation and reduce the thickness of the turbulent layer. Dr. Sumon Sinha, a mechanical engineering professor with his PhD in fluid dynamics has discovered a new and simple method of deturbulation which promises much better results.

The theoretically most efficient wing is not fully laminar. True, laminar flow reduces turbulent energy loss to a minimum, but the skin friction drag is still there. However, if you can lift the high velocity gradient bottom of the boundary layer flow off the surface a little, dramatic reduction in skin friction can be achieved.

The deturbulator is a multilayer Mylar tape about 50mm wide and 80 microns thick that acts by vibrating and thereby damping turbulence in the boundary layer airflow.

Test flights with a Std. Cirrus are being carried out. With this tape only being attached to the wing top surface in many short sections with gaps between them, a significant increase in L/D has been measured. The sink rate was reduced about 12% and max L/D went from a baseline of 36 to about 38.5.

On 19 March 2005, Std. Cirrus #60 (N2866) was flown in parallel with an ASW-28 Std. class glider (N228DC) at 80 knots. The Cirrus was equipped with a prototype version of Dr. Sinha's deturbulator tape over the full span of the upper wing surfaces. The lower wing surfaces were in their standard configuration, clean except for mylar aileron gap seals.

The Standard Cirrus is a 36 year old design that used Wortmann airfoils which have long since been eclipsed by newer laminar flow sections. The ASW-28 is the latest and argu-



Homeward bound. The day began at 2:30 pm, so we went to Drummonville, 40 kilometres from Champlain. On the way back, we joined the Libelle in the last thermal of the day, climbed to 5000, then flew 25 km in this formation back to Champlain. A small day, but much fun! Pilots: Bob Bell – Libelle (DC), Gabriel Duford – ASW-20 (W6), Alain Thirion – LS-4 (ZT).

Photo by Pierre Cypihot in Champlain's Jantar.



ably best Standard class glider available today. The max L/D for the Cirrus is 36:1 – the manufacturer claims 45:1 for the ASW-28. Otherwise the wing areas, aspect ratios and loadings for these ships are similar.

This was not a planned comparison of the two gliders over a full range of airspeeds at high altitudes where smooth air would permit a precise comparison. It was merely a chance encounter, an opportunity to corroborate sink rate measurements that are being collected on the modified Cirrus. It was a single side-by-side glide of 5.3 nm at 80 kts. This speed was chosen because it is known to be where the Sinha deturbulator is especially effective on the top surface of the Cirrus wing.

Without the linear fits on the height data gathered for both gliders, it would be difficult to see any difference. However, the different slopes of the data reveal that the Cirrus was sinking about 6% faster than the ASW-28. This is only a third the difference that an unmodified Std. Cirrus should see. In other words, about 2/3 of the performance gap at 80 kts between the 36 year old Cirrus and the best glider design technology available today has been bridged by a preliminary, top-surface-only application of the Sinha deturbulator.

At this point, top wing surface only deturbulation of the Std. Cirrus is being assessed before proceeding with a lower surface appli-

cation. When we feel that we have achieved as much as we can with a reasonable amount of effort we will measure a proper polar and also take it to Dick Johnson for independent performance testing. Work is proceeding to be able to manufacture the tape in commercial quantities. The trick would seem to be how to correctly position the tape on any given wing.

For project info, go to <www.sinhatech.com>.

from *Gliding Kiwi* and the website

A study of deep concentration. What is that baby thinking? – perhaps, “There goes my lunch.”

During Edmonton Soaring Club’s cross-country week in May, Carol Mulder straps into the ESC Puchacz with instructor Henry Wyatt to get a little glass time in preparation to fly a Jantar.

Carol is the president of the Central Alberta Gliding Club flying at Innisfail.

photo: John Mulder

1000 km contest task set in Finland

On 4 July, the first day of the 13th European Gliding Championships held in Rääskälä, Finland, 17 of 20 Open class pilots completed a 1011.8 km multi-turnpoint task.

Here’s the data on the first four places:

	<i>name</i>		<i>glider</i>	<i>kph</i>	<i>pts</i>
1	R. Cheetham	UK	ASW-22B	117.2	1000
2	P. Harvey	UK	Nimbus 4	117.0	998
3	R. Schramme	Ger	Nimbus 4	117.0	997
4	T. Bode	Ger	ASW-22B	116.9	996

The winner’s task time was 8:38:05 hours. All four flights started just after 11 am and finished just before 8 pm.

Several thoughts come to mind with this great result, the first being that a high latitude contest site can allow long soaring days — Rääskälä is at 60° 44.55' N, and launching for the class must have started before 10 am.

Second, one must be in awe of the task committee for having the “cozones” to set such a task on the very first day of the contest — I can only imagine the pilot’s initial reaction.

Third, team flying is an obviously good tactic.

Lastly, I wonder about a scoring system that rewards the pilots so little per kilometre (or kph) when another task of less than half this could also earn 1000 points.

Tony Burton

Thoughts on another stall/spin fatality

Comment from a pilot in the USA on news of a Russia stall/spin fatality in Nevada.

Even in a ship that has as good a pre-stall warning as the Russia we see that nemesis, the stall/spin, taking lives. Here are a couple of thoughts to ponder:

#1 I read an article a while back with an FAA statistic. Aircraft accidents in which the plane hit the surface at 10° or less had a 90% survivability rate. As the angle increased, survivability went down at a very steep rate. This is for powered aircraft. I can imagine that the survivability rate for gliders might be even higher. I have taken this to heart, and if I am ever presented with this choice, I will sacrifice the aircraft to save my skin.

#2 I learned from a police psychologist that when we are confronted with a life-threatening situation, our bodies sometimes will give us a shot of adrenaline. One effect is to pull the blood into the central organs to stem the flow of blood if we are hurt. Another effect is diminished mental capacity — the classic “deer in the headlights” situation. If you are confronted with something that causes this adrenaline jolt, the “flight or fight” response will kick in and it is unlikely you will be able to sit and calmly reason your way out of the situation you find yourself in. If your nose is pointed straight down at 200 feet agl, you will pull back hard on the stick. A friend gave me a good saying:

*“You don't rise to the occasion,
you revert to your training.”*

The police psychologist reinforced this. He was part of a study that looked at situations where police had used their guns.

The least dangerous situation was where a police officer was on duty and was called to a situation. The second least dangerous situation was where an officer was off-duty, working a security job. By far the most dangerous situation was where the officer was off-duty and with their family and had to respond. In this situation an officer is no more equipped to handle the situation than the average citizen.

The flying analogy is this: if you have training and you have been thinking about that training and how to handle the situation before entering into it, you are far more likely to be able to have those skills available when you get the adrenaline jolt.

Because of this, I now mentally go through my emergency procedures for a rope break on takeoff before I hook up. This includes

moving all the controls the way I'd need to if the emergency happens.

Here's an example: we have an instructor with 5000 hours that had a rope break at 100 feet. He sideslipped in the Blanik and ground-looped it before he hit the fence.

When the dust settled, his student asked why he never used the spoilers. Obviously the adrenaline kept him from thinking about them, as they are never used on takeoff, so they didn't exist for him in this situation.

If more instructors understood the effects of adrenaline, it could change the way new pilots are instructed. We have been teaching the stall/spin recovery for many decades, yet pilots are still dying on the turn from base to final. Clearly, something else is coming into play and I suspect it is this mind-numbing effect that adrenaline causes when pilots are suddenly surprised and in reaction their body gives them a shot. This could stand a serious aviation medical study.

I have experienced this twice in my life. Fortunately, both times it was mild and both times I was not in any danger of killing myself within the next few seconds, so I had the time it takes for it to wear off. Why this isn't mainstream knowledge is beyond me. There is nothing new here.

Brian Bange

Justin Wills on safety

At the Nationals, Justin spoke on three areas of human factors he relates to his personal gliding safety. The three areas he emphasized were: establishing your comfort zone, recognizing accident sequences and departures from your routine, and personal discipline by knowing your limits. Getting into the comfort zone is finding your personal level of satisfaction with the risks in gliding by identifying elements that protect you and make you comfortable. This includes items such as checklists, minimums, personal routines, etc.

Recognizing a poor pattern development can prevent an accident sequence (the domino effect or Swiss cheese model). He said you needed to discipline yourself to take the action to break the sequence or to correct a missed pattern. He gave the example of being interrupted in his DI and going back two steps to restart so nothing was missed.

Lastly, Justin pointed out that he applies personal discipline to do whatever is necessary to stay in his comfort zone despite other pressures to do otherwise. He gave the example of George Lee, a past world contest winner, who was an RAF “Top Gun” fighter

pilot and about to retire. He was giving a final retirement demo flight at an air show on the base. The Base Commander asked him to do a final low pass and low level loop. George agreed, but at the top of the loop he was lower by only 100 feet of several thousand from his normal position, but high enough to complete the exercise. However, he aborted the loop at the top by rolling out despite the pressure on his ego to complete it in front of all his peers.

This was the personal discipline that Justin was talking about. In gliding, this is deciding when to turn back or select that field to land in — not pushing oneself outside a personal safety comfort zone and taking a risk. This can be difficult to do in a contest. Despite staying in his comfort zone, Justin has managed to fly safely for 9000 hours and win contests.

Dan Cook, SAC safety officer

TORONTO AREA Glider Pilot Ground School

Fall 2005 session starts Tues 20 Sept.

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

The fall course will start Tuesday, 20 September and will be held at a downtown Toronto location close to the CNE Grounds. The 10 week, 30 hour Glider Pilot Ground School will be taught on Tuesday evenings from 7-10 pm. The facility has ample free parking and is accessible by public transit.

The course meets the licensing requirement of Transport Canada for 15 hours of ground school and to prepare the student to write the Glider Pilot exam. However, other aspects of soaring of a more general nature will be covered as well. The material will be presented in a lecture format supported by videos.

For registration information, a class schedule or if you have any questions on the course itself, please contact:

Ulf Boehlau
days: 416-410-3883
evenings: 905-884-3166
e-mail: <uboehlau@yahoo.com>
or <ulf@problem.org>

For more info, visit the York Soaring website at <www.yorksoaring.com>.

A SAC Soaring Safety Responsibility Code

- 1 Ensure DI's and positive control checks are completed each day before you fly.
- 2 Conduct a pre-take off walk around before each flight.
- 3 Calculate that your weight and balance are within limits.
- 4 Apply the "I'M SAFE" list to your Go/No Go decision.
- 5 Use checklists for pre-takeoff, pre-landing, and pre-cross country or contest flights.
- 6 Do a risk analysis. Anticipate that what might go wrong may go wrong!
- 7 Practice the "SOAR" technique on each flight starting out with "Options" in CISTRSC-O.
- 8 Implement "CRM" by using all available personnel (flightline manager, line crew, duty instructors, other experience pilots, FSS, ATC) by radio as necessary.
- 9 Maintain currency, fly often, and include solo time if you are an instructor. Include stall/spin avoidance & recovery training annually.
- 10 Always get a checkout on a new type from an instructor familiar with the type. Use a formal procedure – not "ad hoc".
- 11 Practice the seven lookouts on each flight & use a disciplined scan technique.
- 12 Develop your own "comfort zone" for flight safety and learn to recognize accident sequences/patterns. Be alert to your situation, use good judgement and apply personal discipline by knowing your limits to stop and correct the situation.

Research *free flight* articles if you are not familiar with any of the above points. Use the search index on the *free flight* page of <www.sac.ca>. **Dan Cook**

Notes for any volunteer retrieve crew

found on the dashboard of a van at the Nationals

Dear retrieve crew,

Welcome to this '89 GMC diesel van. It has *nothing* state of the art; in fact, it's a piece of junk. The good news is that it has fuel. The bad news is that it runs hot pulling even itself up hills. Please watch the temps and keep the speed less than about 100 km/h. The air conditioning is broken also, as is the driver's side window.

The shift lever sometimes is not in "Drive" when the needle points there. Please fiddle with it to get it into D.

Lastly, this morning (3 July) I had smoke billow through air vents – it was wood/paper smelling. I had mice get into toilet paper over the winter while the van was stored. Probably that's what it was. If she catches fire, please try to get my stuff out of the van! If time permits, and you feel like it, fight the fire. If not, let her burn!

Dave "DM"



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The great thing about the flying community is how we welcome visitors and lend a hand where we can.

This hospitality was offered to us in Pincher Creek. Frank Wood, a local businessman and pilot, helped to get us organized, planes put away and tied down — then gave us a ride to a restaurant where we had some lunch and waited out the rain. It was the local Husky truck stop, and was quite good.

Frank picked us up later on and drove us into town where he showed us one of his projects. Those of you who have attended Cowley camps might remember the A&W Restaurant at the entrance to town, across from the Co-Op. This property is owned by Frank and he did not renew A&W's lease when it came up recently. The building is currently being re-done as a new (non-franchise) restaurant.

Leg 3 – Pincher Creek to Claresholm – 121.6 km

The weather had passed by, and it was now clear with scattered overcast. Frank drove us back out to the airport, and we readied the planes for the trip back to Claresholm. I was first off again, and set a course to the northeast over the south end of the Porcupines. All the bad weather, dark clouds, and rain had disappeared, and the last leg was uneventful.

All the recent rain experienced by southern Alberta had resulted in the whole area looking uncharacteristically green, and we enjoyed this view as we flew back to Claresholm. With all the towplanes missing, it was obvious to the glider fleet that there was to be no flying that day, and the airport was mostly deserted on our return as people had left to do other things. ■

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The PETER CORLEY Memorial Sponsorship is designed to help young SAC members pursue their education.

The deadline for submitting an application is 1 October. Details are on the SAC site. Go to "Youth Programs" under the SERVICES tab.

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Note: items 4 and 5 not stocked – external purchase approval is given

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| 4 | FAI GOLD badge, 10k or 14k pin | |
| 5 | FAI DIAMOND badge, 10k or 14k pin and diamonds | |
| 6 | FAI Gliding Certificate | \$10.00 |
| | Processing fee for each FAI application form submitted | \$15.00 |
| 36 | FAI SILVER badge, cloth 3" dia. | \$12.00 |
| 37 | FAI GOLD badge, cloth 3" dia. | \$12.00 |

Order these through the SAC office

- | | | |
|----|--|---------|
| 33 | FAI 'A' badge, silver plate pin (available from your club) | \$ 3.00 |
| 34 | FAI 'B' badge, silver plate pin (available from your club) | \$ 3.00 |
| 35 | SAC BRONZE badge pin (available from your club) | \$ 3.00 |

Please enclose payment with order; price includes postage. GST not required. Ontario residents, add 8% sales tax.

SAC forms (downloadable from SAC web site forms page)

FAI badge application, Official Observer application, Flight trophies, FAI Records application, Flight Declaration form

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- | | |
|----|---|
| 33 | Insigne FAI 'A', plaqué d'argent (disponible au club) |
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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%.

Formulaires ACVV

Formulaire de demande pour insignes FAI, Observateur Officiel, trophées, records FAI, formulaire de déclaration de vol

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Youth Issues

vacant

How the CD saw it

from page 7

the task, the sniffer lands back at the field. The pilots look at me in disbelief of the 178 kilometre task I announced. I tell them if the day is going to happen, it's going to happen now, and we are launching in 15 minutes.

The Club class started well but Racing struggled as they were launched second. Brian's crew managed to get everyone up in an hour despite the 2500 foot tows I requested to give the pilots a fighting chance to get through the shear. A few pilots couldn't get a good start and there was a landout, but many were able to connect with a potent cloud-street just within range to the north which then made the task easy and made the last day a contest day.

At the start of the contest I asked the pilots to be kind to me as a volunteer. I found being CD was tiring but rewarding. I encourage you to accept this experience if you are good with people and can be decisive when needed. You also need to be a good listener but make up your own mind. In the end, the pilots were kind and I might do it again, though it is hard wishing to be up there in the air with the contest pilots while you remain on the ground thinking about them getting around the task safely!

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the unplanned Silver duration

Keith Andrews, Sunday, 22 May

I HAD NOT STARTED OUT TO DO MY SILVER DURATION. My club, Prince Albert Gliding & Soaring, which flies at Birch Hills, SK, was having fun flights to see who could fly the fastest 50 km over the house course. After launching at 13:46, I had completed my attempt by 14:39 and was setting up to land when I was told that there wasn't anyone else who wanted to go up at the time in the K7 and to continue flying if I wanted to.

The day was also giving other members some very good flights, two cross-country flights were made that pushed our local club distance records up over twice what they were the day before. Wouldn't it be heaven if every soaring day were like this.

High cirrus clouds had started to come through and it was a slow process to gain altitude but after twenty minutes of circling I had gained 5500 feet and I felt that I had enough height to go south of the airport to where the cirrus was not shielding the ground. At that point it was relatively easy when staying between 7000 and 8000 feet (all heights agl).

As the afternoon wore on I started to think about attempting my five hour duration as that's all I had left to complete my Silver badge. I couldn't remember exactly when I had launched and couldn't contact the flightline as the radio battery had died. I knew that I would have to remain aloft until well after 18:30 and I wasn't sure if the lift would last that long.

I decided that if I was going to have any chance of completing the five hours I would have to get high and stay as high as I could. Cloudbase was at 10,000+ so I climbed to 9500+ cruised back and forth between Waitville and Crystal Springs by way of Dickson Lake. Until about 17:00 it was relatively easy to stay between 8500 and 9500 feet. Then the cirrus started to move in again and cut the lift off in the area that I was using.

I attempted to move 8 or 10 miles further west to Hagen but encountered strong sink and went back to Waitville. There were a few clouds still forming under the cirrus toward Birch Hills and I decided to go there. By the time I reached the developing cu, I was down to 6000 and struggled to get back up to cloudbase as the lift was very weak (50-100 ft/min).

For the last hour I spent a lot of time circling in weak lift or in areas that I found with weak sink, attempting to stay as high as I could so that when the lift did fail I would have that much longer to glide down.

From about 18:00 I had been doing a lot of thinking about my launch time and the last time I could remember looking at my watch was at 13:49 so I knew if I could remain aloft until 18:49 I would have my 5 hours.

Around 18:30 the lift finally quit. I was close to cloudbase at 9800 and it was becoming harder to find areas of weak sink. It was about this time that I was wishing that I had launched prepared for a five hour flight. I was getting cold and thirsty and I had not brought any water with me.

FAI badges

Walter Weir

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

The following badge legs were recorded in the Canadian Soaring Register during the period 21 May to 23 July 2005.

SILVER BADGE

989	Marc Arsenault	ACE
990	Keith Andrews	Prince Albert
991	Kazimierz Bulka	York

SILVER DISTANCE (50 km flight)

Marc Arsenault	ACE	60.1 km	PIK-20B	Bromont, QC
Kobus Steyn	Prince Albert	95.5 km	Phoebus C	Birch Hills, SK
Kazimierz Bulka	York	62.8 km	1-34	Arthur E, ON

SILVER DURATION (5 hour flight)

Keith Andrews	Prince Albert	5:20h	K7	Birch Hills, SK
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C BADGE (1 hour flight)

2811	Charles McNair	York	2:20h	1-26	Arthur E, ON
2812	John Stanley	Great Lakes	1:04h	Puchacz	Tottenham, ON
2813	Jim Miller	Great Lakes	1:11h	Krosno	Tottenham, ON
2814	Paul Finlay	Great Lakes	1:12h	SZD-50-3	Tottenham, ON
2815	Erkin Agsaran	York	1:52h	1-26	Arthur E, ON

By 18:49 I was down to 3600 feet and I knew that I had the five hours in the bag. I performed a wingover to celebrate and lose a bit of height and then just glided down to circuit height and landed at 19:06 to accomplish a 5:20 flight.

The fellows came running out to congratulate me and to say they had been trying to get me on the radio to tell me to stay up for over 5:23 and I would have claimed the club's longest flight. As it was I was the first club member to get his Silver only using the K7 and had the longest club flight in a K7. And it sure was nice to begin warming up again and get a drink ■



Keith Andrews, SAC's newest Silver badge holder, just after landing. Who will get number 1000?

Trading Post

Personal ads are a free service to SAC members (give me name of your club). \$10 per insertion for non-members. **Send ad to editor.** Ad will run 3 times unless you renew. Tell me if your item has been sold sooner. Subject to some editing for length (usually 6 lines max).

single seat

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1-26, CF-ZDD, #73, 1958, 3466h, good flying cond. Price includes open trailer, basic inst. \$5000 obo. At Pendleton, ON. Contact Ian Grant, <granti@igs.net>, (613) 737-9407.

K8, C-FRCE, #526, blown canopy, instruments and radio, trailer, current CofA. \$7000. Charles Yeates, (902) 443-0094, <yeatesc@ns.sympatico.ca>.

HP11A, 1969, modified, 200h, NDH. Retractable nose gear. Fully equipped except for flight computer, Schreder trailer, O2, bailout bottle, ground radio, two chutes, tools and misc. parts. \$US15,000. <dahlem@sasktel.net> (306) 955-0179.

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HP-18, 260h, 1996, std. instr, GPS, hand-held radio, baro, L-100 vario. Centre stick, one piece canopy, tow bar and wing dolly, encl trailer – all in excellent cond. Asking \$15,500. Cal Gillett (519) 425-1679, <cp342@sympatico.ca>.

Phoebus B1, C-FGBH, 1025h, good cond, basic inst. radio, O2, chute, one-man rigging & tow-out gear, trailer. \$15,000 obo. Imre Bereczki, <mbereczki@sympatico.ca>, (519) 842-5463.

ASW-15, C-GKDS, 1040h, std. inst. + TE vario with audio. Annual to Oct. 2005. Semi-aerobatic, always hangared, never damaged. Includes factory trailer, tail dolly, chute, O2, tow-out gear and misc. items. \$16,000 obo. Call Ted Beyke <tedbeyke@excite.com> (416) 244-8855.

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Hornet, C-GQMB, #87, 3440h Blumenauer EFA1 electric vario and flight computer, Sage mechanical vario, 760 chan radio and boom mic. Wings refinished in 92, fuselage refinished in 02. Trailer in vg cond. Asking \$21,500. John Brennan (519) 856-0033 <hornet@sosaglidingclub.com>.

Std Cirrus, C-GEOD, 1800h. Refinished. Microair radio, elec and mech vario on good TE probe, connections and mounting for Volkslogger and PDA, O2, wing wheel, tow-out bar, trailer nice to tow. Easy

flying, great thermalling glider for the great low price of \$19,500. Many photos by email on request. Al Hoar, (403) 288-7205, <gwen.al@shaw.ca>.

ASW-17, N71KS, 1050h, historic glider, completed first ever 1000 mile flight in history, 48:1, 20 and 15 metre tips, refinished, new instrument panel, LX5000, chute, XL water bags, Blanik main wheel, great rigging aids, trailer and tow-out gear, covers \$US27,000, contact Ray at (519) 752-4485 or <wgm@bellnet.ca>.

Grob Astir CS 77, 1977, #1616, 1500h, 38:1, large cockpit, retractable gear, water ballast tanks. Std instr. including Cambridge vario, ATR720 radio and boom mic. Always stored in trailer or hangar. Asking \$24,000. Dave Springford, (519) 884-4242, <CS77@sosaglidingclub.com>.

Open Cirrus, CF-XGU, #18, 2470h. Excellent cond. for its age. Large cockpit, 44:1. No damage. Water, gear warning, Garmin GPS plus elec. T&B and AH. Cambridge vario with audio. Winter vario. Radair 10B radio + 720 chan handheld with remote mike and speaker. Original trailer. One-man rigging and tow-out gear. O2, chute, baro. \$20,000. (902) 466-2906, <joy.foote@ns.sympatico.ca>.

SZD-36 Cobra-15, C-GQWQ, 1977, 897h. No damage. L/D 38/1, A-1 condition, kept in hangar. Modified PIK-20. Fiberglass trailer. Located in Toronto. Asking \$15,000. Charles Kocsis: (416) 908-5638, email: <karoly_cobra@yahoo.com>.

SZD-55, C-FTVS, 1996, low time high performance Standard class sailplane in like-new condition. Never damaged, never tied down outside. Trailcraft clamshell trailer, full instrumentation, radio, Win-pilot flight logging and calculator system. \$60,000. Colin Bantin <ccbantin@sympatico.ca>.

Nimbus 2B, C-GAJM, 1977, #25, 1120h, 20.3m, 49:1. Flaps, tail chute, 110L water ballast, Filser LXFAL flight computer/GPS/final glide calc, chute, trailer, and all glider covers. An absolutely beautiful flying machine, and proven competitor. Based at York. \$42,000. Peter Luxemburger <iluv2soar@yahoo.ca>

two-place

RHJ-8, 1979, 1400h. Based on the HP-14, side by side reclining seating, T-tail. Many improvements: elevator and rudder gap seals, increased rudder length, wing root filets, winglets. Best L/D 34 at 50 kts, thermal 40-42 kts, stall 35 kts, roll rate under 5 sec. Fits tall pilots. A parallel hinged single piece canopy, improved ventilation. No trailer. \$US18,000 (.0019 L/D points per %). John Firth, (613) 731-6997, <firsys@magma.ca>.

K7, either C-GALN #772 or C-GRGD #536, blown canopy, instruments and radio, trailer, current CofA, \$11,000. Charles Yeates, <yeatesc@ns.sympatico.ca>, (902) 443-0094.

2-33A, 1968, #131, 3488h. Fuselage fully overhauled about 1995, again in '98 after hard landing. Wings stripped and repainted around 1995. Complete with open trailer. Asking \$12,500. Photos available. Edmonton Soaring Club, info Hugh McColeman, <hmcocle@shaw.ca> or (780) 468-6418.

misc

Ilec SN10 ft comp with remote control and **Volkslogger** both for \$4000. GPS moving map display, AAT calcs, emerg landing field func, final glide comp. One of the best electric varios avail. Save \$600 plus taxes over new SN10, easy upgrade to SN10B. Dave Springford (519) 884-4242 <ls6b@rogers.com>.

Scheibe **L-Spatz 55**, Schleicher **K7**, and **American Eaglet** motorglider kit. Eaglet and K7 are projects.

Spatz may need work? Located in Nova Scotia. No trailers. Info plus gliding related items listed at <http://home.cogeco.ca/~yard_sale/> Peter Myers, (613) 531-9364, <petermyers@cogeco.ca>.

Parachute, Strong 303, made '91. Excellent cond. \$450. Tillmann Steckner, (519) 471-3203 (London).

towplanes

L-19, 4250h, 1290h engine SOH, O-470-11B, 217 hp. Full history, in service, fresh annual. At VSA, club downsizing. Asking \$60K. Dave Baker (604) 541-7671, <sezpilot@yahoo.ca>.

magazines

GLIDING & MOTORGLIDING — world-wide on-line magazine for the gliding community. Edited by Gillian Bryce-Smith, <www.glidingmagazine.com>.

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

GLIDING KIWI — Editor, John Roake. Read world-wide with a great reputation for being first with the news. US\$40. Personal cheques or credit cards accepted. NZ Gliding Kiwi, 79 Fifth Avenue, Tauranga, New Zealand. <gk@johnroake.com>

SAILPLANE & GLIDING — the only authoritative British magazine devoted entirely to gliding. Bimonthly. US\$45 per year airmail, US\$35 surface. <beverley@gliding.co.uk>

VOL À VOILE — une publication bimestrielle éditée par Aviasport. 300 F les 6 numéros. Tel 01 49 29 44 22 <info@volavoile.com>.

suppliers

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

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

High Performance Sailplanes Planeurs de grande finesse. AMS-flight DG ELAN Std class and 2-seaters. DG Flugzeugbau GmbH 15m, 18m gliders/motorgliders and 2-seat gliders. <willem@langelaan.com>

Swidnik Sailplanes Today's technology, polyurethane finished, instrumented, type approved PW6U and PW5 from CM Yeates & Associates. Avionic trailers with fittings also available. Phone/fax (902) 443-0094. E-mail <yeatesc@ns.sympatico.ca>, or see <www3.ns.sympatico.ca/yeatesc/world.htm>.

Sportine Aviacija LAK sailplanes <www.lak.lt>. LAK-17a – 15/18m flapped; LAK-19 – 15/18m standard; LAK-20 – 2-seat 23/26m Open. Exclusive dealer for Canada, Nick Bonnière <bonnfutt@magma.ca>.

Solaire Canada LS series of sailplanes, LX glide computers, Dittel radios, Collibri FRs. Ed Hollestelle, <ed@solairecanada.com>, (519) 461-1464.

Invermere Soaring Centre Mountain soaring, camping, glider rentals. Mountain flying instruction in Lark or Duo Discus. Trevor Florence, Box 2862, Invermere BC, VOA 1K0, cell (250) 342-1688, ph/fx (250) 342-7228. Website: <www.soartherockies.com> e-mail: <info@soartherockies.com>.

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Boris de Jonge (902) 424-1399
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www.chebucto.ns.ca/Recreation/BSC/

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robfrancis@tru.eastlink.ca

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Hawkesbury, ON
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stephen.szikora@sympatico.ca

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www.erinsoaring.com
info@erinsoaring.com

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Raymond Bastien (819) 561-7407
www.gatineauglidingclub.ca

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Richard Longhurst (416) 385-9293 (H)
www.greatlakesgliding.com

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Paul Nelson (519) 821-0153 (H)
www.geocities.com/ggsa_ca/

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between Kintore & Embro, ON
Sue & Chris Eaves (519) 268-8973
http://home.golden.net/~mkeast/LSC_Web/LSC_Home.html

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

SOSA GLIDING CLUB
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(519) 740-9328, (905) 428-0952
www.sosaglidingclub.com

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airfield: 24 km W of Shelburne, ON
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