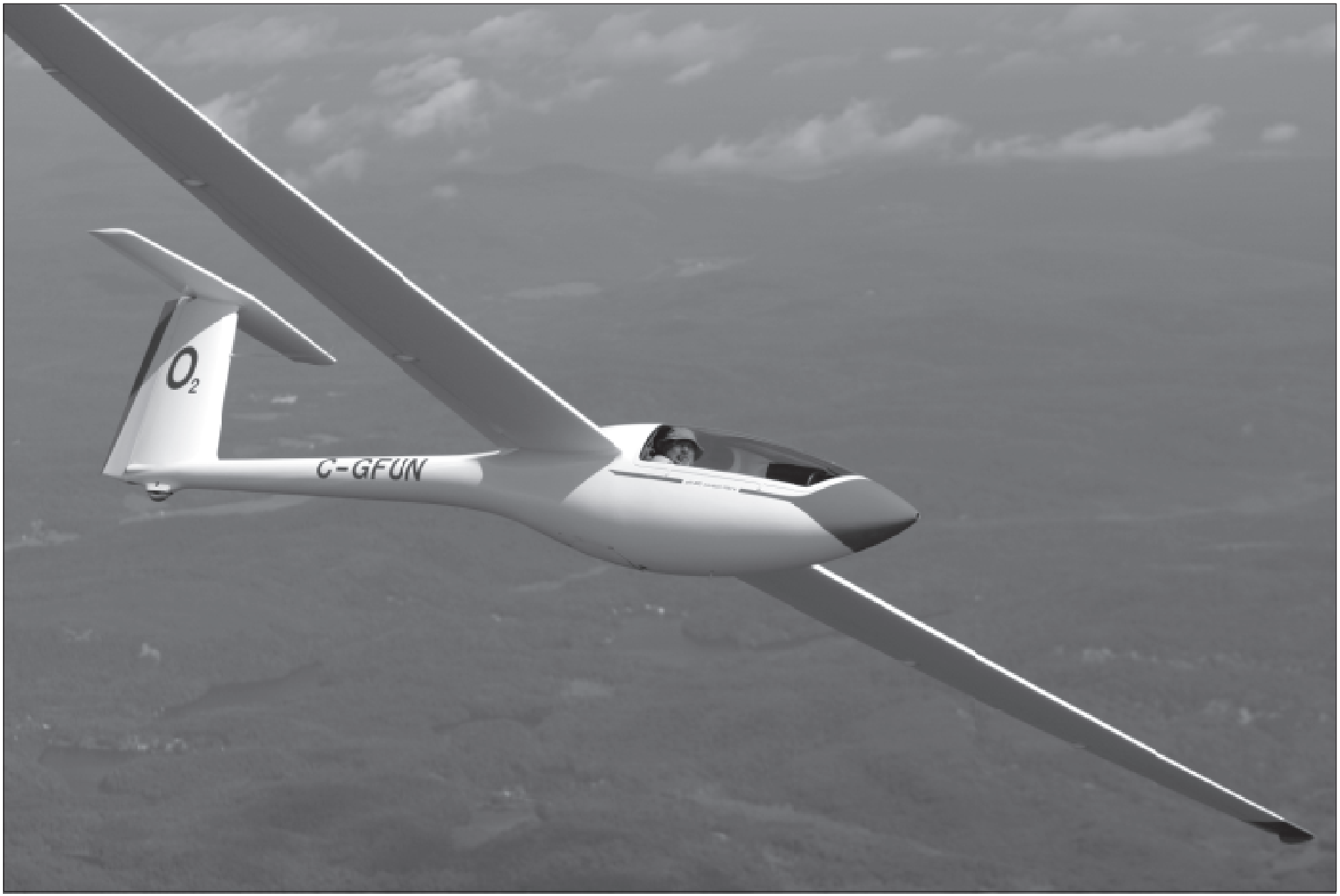
5/03
Oct/Nov

free flight • vol libre



Priorities

Risk, Responsibility, and Reward

My very first visit to a soaring club had me wanting more! I don't remember any of the individuals at the Red River Gliding Club but my first sight of gliders in the air soon led to being a student with the Winnipeg Gliding Club. I wanted what that HP-14 pilot had as he did a demonstration low level pass, pulled up to circuit height and came around for landing! I wanted to fly! In the course of my training the risks of the sport became apparent. I was learning that not every flight ended well and that pilots sometimes got hurt. Broadening my skills and experience was the way to reduce those risks. Taking personal responsibility for the way I flew was the key.

I did attend club meetings with WGC but it wasn't until joining the Vancouver Soaring Association that I became aware of the organizational structure gliding clubs need to function: instruction, maintenance, finance and safety. As with flying, it took a while before I became aware of the risks that were inherent in the operation of a club. Clubs sometimes faltered and their members became disillusioned and left the sport. It became clear that taking personal responsibility by volunteering and doing my part was again the key.

Recent visits to many clubs have convinced me that their well-being could be threatened by a risk I had not previously identified. I would label it as a "relational" risk since it is the danger a club is placed in when pilots allow conflict to go unresolved. This risk seems to increase in successful clubs that have experienced growth and find that what has been accepted as tried and true collides head on with new ideas. It also seems to increase when a club faces diminishing numbers and the membership becomes divided over how to turn the situation around. Reducing this relational risk calls for the same diligence that it takes to make flying safer and our clubs run smoothly. We need to take personal responsibility for creating a positive outcome by clearly identifying the problem, appreciating its threat and taking action that will be, as the saying goes, part of the solution and not part of the problem. The rewards ? ...

- Flying safely will encourage others to do the same thereby saving lives and reducing insurance rates.

- Volunteering to take on club tasks will keep others from becoming overloaded and fewer pilots will leave the sport as a result of burn-out.

- Happy relationships between members have a double benefit: prospective members will join when they find a peaceful club atmosphere, and current members will stay for the same reason.

Taking personal responsibility for flying safely, volunteering to do our part in our clubs, and reducing interpersonal battles won't eliminate risk and return us to the innocence of Camelot but we will find greater enjoyment and satisfaction in the flying that attracted us to this great sport of soaring.

Phil Stade, SAC president

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Le journal de l'Association Canadienne de Vol à Voile

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Cover

The glider is a PIK-20D flown by its owner, Pierre-André Langlois who was also competing with it at the 2003 Nationals. The photo was taken on 20 July north of Hawkesbury from the back seat of the L-19 towplane with a 6.3 Mp digital SLR camera. Pierre-André carefully selected the registration GFUN and the contest letters O_2 of his glider to read, "Oxygen is FUN".

photo: Hicham Hobeika

DEPARTMENTS

e-mail change

"free flight" and the editor is now

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licence THE YEAR BETWEEN cross-country

There are *ALL* these questions to ask yourself

Karin Michel
Cu Nim CFI

WE HAVE OUR LICENCE. NOW WHAT? In our pre-solo and pre-licence instruction, the instructors guided us along well-understood paths in a progression that has been determined through years of collective experience. Experienced instructors provided assessment, feedback, planning and exercises. Now, when we go up in a single-seat glider, we are in a lonely but exciting (and potentially hostile) place. We are as unreachable to that instructor as being at the top of a mountain or at the bottom of the ocean. It is in this place that we will spend most of our gliding life (instructors excepted). Now our well-being and continued growth in the sport require that we learn how to learn, and learn with just that level of risk needed to acquire new skills and knowledge.

Derek Piggott recommends at least a year of post-licence flying before going cross-country, and our collective experience at Cu Nim suggests that he is not far off. In the year between licence and cross-country you have the opportunity to learn to manage your own path. You will need to learn to assess your flying — what is working and what isn't — without falling victim to the normal human tendency to unrealistically positive self-assessment. You will need to choose learning experiences to fill holes in your knowledge and skills. You will need to sequence your learning experiences so that you learn skills in the right order (for example, perfect your field selection and circuits before going cross-country). You will need to learn how to manage the inevitable risks involved in learning to get the most learning for the least risk (for example, don't try your first cross-country in Invermere.)

Depending on your personality, you may need to learn to manage your feelings about your own and other people's performances in the sport; for example, continuing to work on your own skills is much more valuable to you than trying to keep up with the pack, or to fly the same tasks as Joe Contest Pilot. You will have to choose who to go to for advice (and maybe a confessional), remembering that the best coaches and teachers may not be the highest-achieving athletes, or outspoken opinion leaders.

I have a list here, but it is really just a set of hints on where to look and what to try. I hope that in reading the list and trying the activities, you will begin to understand that gliding is in no way mechanistic, nor is it an armchair sport. It is an improvisational art form, like jazz. You have to practise and practise, and then when you actually perform, you make it up as you go along. Never take off without having a plan to get better at something. Unlike jazz, it actually matters if you hit a sour note, so I would add one more "practise". Good luck and good flying!

Perfect your circuits A safe landing results from having set up a safe, simple, worry-free final approach. Come out early on what is likely to be an uninspiring day and, with due respect for traffic conditions and safety, try every possible circuit variant, again and again until you don't have to think about it, you just put the airplane in the right place to have a nice, easy final approach. By this time, every landing should be a low-energy spot landing. Now try it without looking at the altimeter. Try landing diagonally if your club has intersecting runways. Try other ways of making good landings from non-conventional circuits. What errors do you make? What do you have to do to fix them? Would you fix them before going cross-country? Why or why not? Watch people landing when a little used runway direction is required. What errors do they make? Stand near the fence and judge by how much the gliders clear it. Don't just think about it, do it. How steep are their approaches? How much energy are they carrying into the flare? ⇨ **p18**

The
SOARING ASSOCIATION of CANADA

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

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

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

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5th **January, March**
May, July
September, November

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est une organisation à but non lucratif formée d'enthousiastes et vouée à l'essor de cette activité sous toutes ses formes, sur le plan national et international. L'association est membre de l'Aéro-Club du Canada (ACC), qui représente le Canada au sein de la Fédération Aéronautique Internationale (FAI), laquelle est responsable des sports aériens à l'échelle mondiale et formée des aéroclubs nationaux. L'ACC a confié à l'ACVV la supervision des activités vélivoles aux normes de la FAI, telles les tentatives de record, la sanction des compétitions, la délivrance des insignes, et la sélection des membres de l'équipe nationale aux compétitions mondiales.

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Flying with Marlowe

I was getting quite used to seeing visitors in wheelchairs around York, the "Freedom's Wings" week just completed. Some of these visitors were quite disabled, but all were enthusiastic about getting into the air. I thought all these folks had now gone when I saw a girl with severe disabilities with her parents, and went over to chat with them. The young lady was Marlowe Horn and, as I discovered later, was suffering from the effects of a terrible car accident. She has no verbal communication at all, and limited physical movement.

Charles Petersen asked me if I would like to take her for a flight. Naturally I agreed and started joking with her about doing aerobatics. From her response it seemed that she was really excited about going for a flight, so we set about loading her into our 2-32, which is an ideal glider for quadriplegics with such a wide cockpit and low sides. Marlowe is just capable of standing for short periods, so getting her in was relatively easy. I was instructed on her hand signals for yes and no (left and right), so we could communicate in a basic way during the flight.

It was a reasonable soaring day and I had no trouble getting enough altitude to allow us to venture away from the field. Luther Lake is a pretty sight from the air, so I took her over there and seemed to get a positive response. It can be difficult to judge how much is too much with able-bodied passengers, it was especially so with Marlowe and I did not want to overdo the flight. After about 30 minutes, I headed back to York and a thought struck me. We had joked about aerobatics, so how about a wing-over for her parents? I asked her if she would like to impress them. She raised her left hand. I described the wing-over, and the left hand went up again. I carefully lowered the nose and pulled up into a gentle wing-over, making sure that the g-forces were modest and firmly straight down. She loved it!

After we landed she excitedly told her parents what we did by spelling out words using an alphabet card. A few days later I received an e-mail from her thanking me for the flight. It is similar to the story she wrote for this issue *(p13)* and I must admit it took me by surprise. It is so easy to assume, when someone is as disabled as Marlowe, that they cannot communicate at all. Clearly here is a very intelligent and fun-loving girl trapped in a damaged body. She is optimistic about her future, determined to enjoy her life, study hard for school, and work on getting back the physical skills she has lost. It was a privilege to be the pilot for such a wonderful person.

Richard Sawyer

The motors are coming, the motors are coming, he cried!

In the Aug/Sept *Priorities* column, Yves Bastien was lamenting the increasing popularity of motorized sailplanes and the resulting impact on gliding clubs. As I've owned and operated a motorized sailplane since 1992, I thought I would offer my opinion on the topic.

Motorglider owners are some of the most committed soaring pilots in Canada. After I got my glider I moved to a local airport and became an 'independent' soaring pilot. My decision to move was motivated by a number of factors: airfield quality, airspace constraints, better soaring opportunities, leisure time availability, and club politics. I've missed the camaraderie of the club atmosphere, but have enjoyed the rewarding soaring opportunities that the motorglider opened up. About 60% of new glider production is now motorized. You don't have to be clairvoyant to see where this is leading. I would recommend that the Canadian soaring community stop lamenting the increasing number of motorized sailplanes and starts thinking of how to better integrate them into the soaring movement.

Has your club been able to attract motorglider pilots? Does your club even have a motorglider membership category available? Some clubs in my area have successfully attracted a number of motorglider pilot members. While in other clubs, if a member purchases a motorglider he is never seen again.

On the competition front, the rules could be examined with an eye to attracting more motorglider participation. A quick perusal of contest results show that, with the possible exception of the Open class, motorgliders are not competitive with their conventional sailplane kin. Despite this, most competition rules seem to be written with an aim to removing the perceived advantages of motorgliders.

The future looks like a continued increase in motorgliders with an ever-larger impact on the Canadian and world wide gliding scene. I think it's time to tackle this situation head on and prevent these pilots from 'going independent'.

Vaughan Allan, DG-800 owner

comment from Yves: Thanks to Vaughan for responding to my piece in *Priorities*. It's a challenge to consider complex thoughts in an adequate fashion in the limited space available. My aim was to highlight a few areas of concern. I was flabbergasted at the proportion of motorgliders now being produced and the implications for our club-centric sport. Vaughan highlights areas that we should all consider in our quest for improvement.

The Nationals

Tony Burton, E2

A superb two weeks for corn farmers

IT'S ABOUT 3800 KILOMETRES from Claresholm to the Gatineau Gliding Club — Ursula and I took it easy and did it in 4.5 days. It was too stable on the Saturday we left home to try a planned Dirty Downwind Dash from Cu Nim, so we drove off cross-country through Leader, SK to avoid the Trans-Canada Highway and picked up 843 grasshoppers in the grille in the area around the AB/SK border.

Why go to GGC this year? Well, I wanted to test me and GPS use and the Russia in a competition as I hadn't used that combination before, the long drive would be extended to the Boston area to visit with an old glider pilot buddy, and I wanted to talk to the competitors about the 2005 Nats in Alberta and get some feedback from them. I had concerns with the airspace restrictions a locale like Cu Nim would have, but when I saw the imposition that the Ottawa TCA places on flying out of Gatineau, nothing that we have to deal with in Alberta would be a problem. Ottawa chops a huge chunk out of GGC's former task area — that boundary lies just 5 km west of their field.

Onwards. A delicious sky for a glider pilot presented itself east of the Soo with big high cumulus congestus (bases over 8000) lined up along the north shore of Lake Huron. It was a mouth-watering sight — and it looked like one could soar east from the Soo to Sudbury without turning!

We arrived at GGC on Wednesday and set up with only one or two persons loitering about, then we went out to eat, only to return to find the gate locked. We had to find Tom Milc's house to get back in and to bed. The club was much as I remembered from several years ago with its lovely park-like area, clubhouse, pool, and camping amongst the trees. And an added surprise — few mosquitos.

Few pilots were signed up — only five in Standard, six in 15m, and nine in Club class. The usual discussions ensued on the problem and how to get more pilots into competition in Canada. Some don't want to compete in Canada any more because of poor weather and a low competitive environment, but the main problem is seen to be the small base of up and coming XC pilots arising from a general club culture that doesn't seem to encourage, support, or mandate post-licence soaring skills training. One solution is a Junior XC pilot program to be supported by clubs through subsidizing flights, aircraft use, tows, etc. A proposal to address that is being worked on by Ulli Werneburg.

Friday — After putting a little air in the tire before a practice flight, I found that the wheel was completely locked up! On removing the wheel, the brake looked fine — but I saw that the wheel rim had worn a 1.5 mm groove into the inside of the wheel yoke. Each split rim of the wheel is secured on the axle by a pair of semicircular keys but, with Bela Kasco's help, I found that one rim didn't have any keys at all(!). This caused the rim to slide outward on the axle and the now wider wheel jammed up against the wheel yoke. The temporary fix was to use only one key on each side. A call to the USA Russia dealer found that keys can drop out if the wheel is under-inflated and the glider landed "positively" — that's bad design. A new set was shipped with a wire keeper mod to prevent this from occurring.

All through the contest, the clubhouse was a great social and eating gathering place. The club had organized dinners of one kind or another every second evening.

Saturday — showers. Sunday — practice day 1: no flying. Monday — practice day 2. Conditions weak, 3500 foot ceiling, 1-3 knots, blue holes. I landed at Hawkesbury. Marian Nowak, flying his beautiful *Egret* homebuilt, also landed out and was fortunate(!?) that his elevator spar failed on touchdown with relatively light downward loads while bouncing along on the tail wheel. He was planning to build a new one anyway, but the apparent prospect of a worse accident on any past flight was sobering. He borrowed the club's L-33 for the contest.

The Contest Director was slated to be Bob Mercer but he was in and out of hospital so the Contest Manager, Ken Brewin, stepped in at the last moment and did a difficult job well. Bob died 29 August; he will be greatly missed.

Tuesday — 29 July, Day 1. Sunny, chance of cbs, 4 knots, cloudbase over 5000. The start was delayed and the task dropped to 2-1/2 hours. It was overdeveloping to the west and over the Gatineaus, but the local area stayed open. Before the start, a large cu nim anvil grew to the southwest whose shadow was drifting towards the first turn at Apple Hill. I started as soon as possible and got to the turn just before the shadow and stayed in the sunshine with the downwind glide to the second turn at Alexandria. Later starters had to glide in and out under the shadow.

As the time limit neared, a line of development with rain was approaching Pendleton. I got to a steady thermal 5 km short of Maxville with Walter Weir and climbed as high as I could and we both turned Maxville and headed on a final glide home about 27 km to the north as this system closed in. It was very murky and black towards an invisible Pendleton and I was glad I had a Volkslogger to get accurate direction and distance home. Contest Ground radioed that the gust front had passed the field and at about 8 km out I got a bit of lift from it — quite welcome as the angle to the field was lower than I appreciated. I got home straight in with a bit to spare and stuffed the ship into the hangar just minutes before the rain began. The day got completely used up! (Maxville, by the way, is the site of the long-held famous Glengarry Highland Games which were on for the coming weekend. If you wanted to see big men in skirts heave tele-

Met man Ted Froelich expresses an opinion

Maria Szemplinska

phone poles and 56 pound rocks around or listen to sixty-five massed bagpipe bands then that was the place to be.

I felt I had done well and my scoring distance of 180.5 kilometres put me in second place, only 5 points behind Adam Zieba, a very good HP-18 pilot and Club class champion for the past two years. It was a 1000 point day for 15m winner Walter Weir (less his 122 point airspace penalty) and Standard winner Jörg Stieber. This was to turn out to be the only real "racing" day of the entire contest!

Wednesday, Day 2 — Unsettled, hot, bases 4500 agl. Ragged areas, but good thermals for those who stayed close to the Ottawa River. I got around the mandatory triangle but on continuing to complete the required time I flew to two non-working cu on the way to St. Isidore and landed just south-west of the town. The fields in the task area had been clearing out with progessive hay/alfalfa cutting, but I found it very difficult to judge the state of the crop from the air — just various shades of green. I did two circuits of the town without finding a good field and finally landed in one in which I could see some dirt.

On the roll-out, I hit a square, concrete-hard rut from a tractor tire and the gear collapsed. That's the first time I had done some serious damage to a glider in 26 years and was really angry at myself. I was afraid that I was *hors de combat* looking at the glider balanced on its belly in the field. Just as hard to take was what I saw later walking around — the large field across the road was in short grass of golf fairway quality, having been cut, baled and cleared just a day or two previously! I just could not tell from the air how long the vegetation was.

On getting back to the carpenter shop at Gatineau and up-ending the fuselage, the damage was seen to be relatively minor. By good design I think, the easiest part to replace was the likeliest part to fail first — the gear downlock hook distorted under the horizontal overload, allowing the gear to retract in the "normal" manner. A good hammering restored the hook geometry somewhat and got it to work until the part could be replaced. All the important repair work got finished before midnight thanks to the help of Kerry Kirby, "69".

Thursday and Friday and Saturday ...
The synoptic situation stayed locked in place. The low to the northwest and the Bermuda High to the southeast pumped warm, humid, hazy air up from the Gulf. All days had a chance of cbs and showers as the temperature required to get thermals to 3000 agl (and a race started) was also enough to tip the airmass into blow-up mode — three days of taking E2 for a walk to the grid, waiting in any shade for something to happen, then walking back to derig and go for a swim (the club pool was a boon).

It was *almost* a task on Saturday. The temperature would move up to 30° when a hole in the cirrus crossed over and cloudbase approach 3000, then drop 2–300 feet as it shifted and cut the ground heating. Standard class got launched and struggled between 1500-2500 agl for over an hour until the day was called at 1600. It turned out that the conditions did improve for a short while allowing a couple of the pilots to do about a 100 km "for fun". The forecast weak cold front arrived at 11 pm after the fine rib dinner at the club, and there was torrential rain and continuous lightning for half an hour.

All the tasks have been the relatively new and popular TDT (Time Distance Task). As in the Pilot Selected Task,

Maria Szemplinska

Adam Zieba got help with a "sailplane extraction" from a field just before the downpour started.

Maria Szemplinska

l to r: two winners, Adam Zieba and Jörg Stieber – but just one Champion, Walter Weir

the task committee sets a task duration and can put any restrictions or requirements on turnpoint use. Using GPS, the pilot's achieved distance times out exactly at the given duration past his last start time. The pilot can fly as long as he needs to after that to get back to the airfield to earn a 10% distance bonus. The bonus is written into formula for safety and organizational and crewing convenience, but also to prevent pilots having to fly as far as possible downwind at the last part of a flight to maximize distance. The pilot can also fly away from the airfield then turn back home as far as his final glide allows to get a GPS "land-out" position at that farthest point away. The scoring formula only uses distance, not speed.

A loss for spectators though is the excitement of fast and low finishes as pilots can wander back any time ... borrrinnng.

Sunday — Again, the pilots meeting was delayed until noon but there wasn't much hope as the area is soaked and the airmass full of clag of various types. The meeting was interesting though, as Alain Berinstain gave a talk on his work on Devon Island with the Canadian Space Agency on Mars habitation experiments run by NASA. (As a matter of fact, Alain, who flies a Genesis "Batplane", missed the first two days of the competition because he was grounded in Resolute for weather on the flight out of Devon.) Alain is involved with an on-going project to build a Mars greenhouse. Devon Island at 75°N is a good proving ground for Mars surface work as it is an Arctic desert with almost no plant life and the site is in a well-preserved 63 million year old 20 km wide impact crater which has much the same features as ones on Mars.

The CD asked pilots to think about taking a secret vote to extend the contest a day or two as the next four days' forecast remained poor — mixed sun/clouds/showers/TCU. The day was scrubbed with a radio announcement at 2:30. Few had bothered to rig.

Monday morning — fog until 1030. The low continues to creep slowly northeast, and still affects eastern Ontario with the usual forecast of 3000 cloudbase and chance of showers and TCU. No rain yesterday helped dry things out on the surface. There was a long discussion within the Task committee, then at the pilot meeting on extending the contest through Friday and Saturday to get in four contest days. With every "stakeholder" present (Sporting committee and competitors), a ballot to extend a maximum of two days to get at least four was passed with no dissenting vote. If less than four days occur, class winners will be declared for some prize-giving, but no class "champion" can be declared for purposes of team seeding to world contests.

Tuesday — Multiple sniffers, pilots stay in the shade to try to beat the 35+ Humidex reading. Sniffers report 1800 agl cloudbase and occasional 1 knot lift as the area gets a little extra heating from a hole in the cirrus. At 1430, a task of 2 hours for 15m and Standard, and 1.5 hours Club is set. Launches begin 1515, I go at 1545 and start at 1615. About this time one or two cu appear in the murk exhibiting flat bottoms and lift underneath is 3-4 knots to 3400! This lasts maybe twenty more minutes and one more thermal as the cirrus hole closes in and the skies die locally. In the meantime, it blows up just to the east and outlanding calls start coming in. The black moves towards Gatineau and pilots converge to land and quickly tuck ships away. About 15 minutes after everything is secure, the Gulf of Mexico starts to dump from overhead and I have to use my windshield wipers on high.

Only Nick and Walter in the 15m class (which started first) exceeded 80 km to give the 15m a day. Nick's win earned him only 77 points — he told a harrowing story next morning of his flight in rain. Standard (best distance 68.4 km) and Club (48.7) are skunked again. I reached only two close-in turnpoints, and completed a monster 29 km triangle, the tiniest of my competition career! It rained really, really hard overnight — have you ever tried to sleep inside a drum?

Wednesday — There's a lake where we sat in the shade.

Thursday 7 Aug — a 15m Champion.
The day started as usual but the low and associated front was due to move out in the afternoon which it did. When pilots were told to grid at noon, the threatening look of the sky prompted most pilots to keep their gliders in their trailers or park them back in the hangar. It finally cleared after 1400 to the southwest and launches began about 1515. Cloudbase neared the required 3000 agl at 1545 and a 1.5 hour TDT was called for everyone. The Club class gate opened at 1615 and Standard class at 1640! The day also peaked about that time and the few cu with flat bottoms started to dissipate but stayed better north of the Ottawa River. Again there were a lot of relatively close-in flights but all three classes got at least two pilots completing the minimum 80 kilometres to make the day "legal", albeit derated severely again — the Club class winner, Adam, got only 90 points.

Walter won the day in 15m and their contest, earning the trophy and the tickets donated by Air Canada. The evening "awards" banquet was just a fun gathering with the landed-out pilots trickling into the buffet-style dinner at *Chez Philias*. Tomorrow has promise for Standard and Club class pilots to get in their extended Day 4.

Friday — there were hopes that today would be decent but the tephigram said no again. The sun was shining at 7 am but fog appeared at 9 and stayed until 1300. Standard and Club gridded once more and waited but it was 1300 foot bases and three mile visibility until after 1500

2003 CANADIAN NATIONAL SOARING CHAMPIONSHIPS				29 July			30 July			5 Aug			7 Aug			
				pos	km	pts	pos	km	pts	pos	km	pts	pos	km	pts	total score
15 METRE CLASS				**2.5 hour TDT**			**2.5 hour TDT**			**2 hour TDT**			**1.5 hour TDT**			
1	Walter Weir	ASW-27B	2W	1	265.3	z878	4	171.5	841	2	93.5	65	2	101.1	217	2001
2	Nick Bonnière	ASW-20	ST	2	231.3	872	5	165.3	811	1	*110.9	77	5	*68.7	147	1907
3	Dave Springford	LS-6	F1	5	150.8	568	1	193.9	951	5	51.3	35	4	93.3	200	1754
4	Larry Springford	ASW-20	S1	4	151.9	573	2	185.4	910	4	*58.2	40	3	96.3	207	1730
5	Willem Langelaan	DG-800	OX	6	133.4	503	3	175.3	860	6	21.3	15	1	105.2	226	1604
6	Udo Rumpf	HP-18 mod	ET	3	182.6	688	6	159.9	s684	3	70.0	48	6	16.6	36	1456
STANDARD CLASS				**2.5 hour TDT**			**2.5 hour TDT**			**2 hour TDT**			**1.5 hour TDT**			
1	Dave Mercer	Genesis 2	DM	3	193.6	898	1	218.6	1000	-	40.3	-	3	*103.0	326	2224
2	Jörg Stieber	LS-8	JS	1	215.7	1000	4	170.7	781	-	74.3	-	2	112.3	356	2137
3	Ulli Werneburg	ASW-24	MZ	2	201.3	933	5	164.6	t703	-	75.3	-	1	124.2	393	2029
4	Roger Hildesheim	SZD-55	AT	4	184.3	854	3	172.8	790	-	68.4	-	5	*83.2	264	1908
5	Ian Grant	Discus 2b	IN	5	120.0	556	2	179.3	820	-	no data	-	4	*93.1	295	1671
CLUB CLASS			hand.	**2.5 hour TDT**			**2 hour TDT**			**1.5 hour TDT**			**1.5 hour TDT**			
1	Adam Zieba	HP-18 mod	AZ	1.01	1	188.5	z876	3	143.7	581	-	no data	-	1	*97.9	90	1547
2	Jerzy Szemplinski	Jantar	MF	0.97	3	166.5	802	1	151.6	613	-	no data	-	4	83.3	76	1491
3	Tony Burton	Russia	E2	1.19	2	180.5	871	5	*110.2	446	-	38.0	-	5	73.9	68	1385
4	Alain Orfila	Ventus A-16.6	RS	0.88	4	133.3	642	2	147.6	597	-	no data	-	3	90.2	83	1322
5	Kerry Kirby	Jantar	69	0.97	6	113.0	t495	4	*126.4	511	-	43.2	-	2	96.4	88	1094
6	Pierre-A Langlois	PIK-20D	O_2	0.98	7	102.5	494	6	109.0	441	-	no data	-	8	*32.2	29	964
7	Marian Nowak	L-33 Solo	ER	1.26	5	131.8	a610	7	*57.5	232	-	67.6	-	7	*58.3	53	895
8	Dan Cook	Jantar	BW	0.97	8	*40.3	194	8	0	0	-	19.1	-	9	67.4	s0	194
9	Alain Berinstain	Genesis 2	BB	0.94	9	dnc	0	8	dnc	0	-	27.4	-	6	66.7	61	61

Scoring penalty codes:

"a" early or late release on tow – 25 points
"s" incorrect start – 100 points
"t" turnpoint entry error – 50 points
"z" restricted airspace – 1 point per 2 sec

Scoring distances (km) handicapped in Club class.

10% is added to scoring distance for landing back at GGC; an asterisk (*) preceding the scoring distance indicates a landout and distance bonus not included.

when a build-up to the west and a roll of thunder cancelled the day and it showered a bit after that.

Saturday the last. It was below IFR in fog for most of the morning. The Bermuda High was still pumping humid air north. Everyone was breaking camp and folding somewhat damp everything. The Pawnee went up at 1430 and reported 1000 feet broken and one mile visibility. Ken thanked the club and the many helpers (heartily seconded by all the pilots) that made the contest enjoyable on the ground at least. The 1, 2, and 3 place-holders were all presented attractive keepers for the mantlepiece and westerners Dave Mercer and I got bottles of wine for driving from far away Alberta.

It was with a sense of relief, I think, that Club and Standard class pilots derigged their gliders for the last time without the prospect of walking their glider to the grid and back again. It had been a *superb* two weeks for the corn farmers. ❖

Maria Szemplinska

Racing the storm

"Return to Kitty Hawk"

***Rolf Siebert**, Cu Nim*

THIS YEAR BEING THE CENTENARY of the Wright Brothers' first powered flights, a group of glider pilots in the USA decided that it would be a great idea to stage a coast-to-coast glider race to commemorate this historic event. No similar race had taken place since the Smirnoff Cup some twenty years ago and the hundred year anniversary of the "First Flight" was seen as a catalyst to again stage a cross-continent race. The organizers were Jim and Jackie Payne and John and Linda Murray. They set the race for 19 June to 4 July: it would start in the Los Angeles area then proceed southeasterly to Dallas, northeast towards St. Louis, Indianapolis, and Dayton, and then southeast to finish at Kitty Hawk, North Carolina. The route was chosen to take advantage of the great soaring conditions of the southwestern USA and allow the participants to visit some of the famous soaring venues in the northeastern part of the country.

Participation was to be limited to fifty, with preference given to "celebrities" and top-ranked racing pilots. Being a relatively recent pilot with only five years of flying and about 600 hours under my belt, I hoped that the race was not going to be oversubscribed. My wishes came through in late March, when I was granted a spot on the roster. With no illusions of even coming close to winning my class, I thought that the race might be the adventure of a lifetime.

Prior to joining the start of the race I drove from my new home in Calgary to Moriarty, NM to fly with Angel Pala. Angel had bought a brand new DG-800S and was eager to do some serious flights. We managed to get some pretty good days of flying with 300–400 km tasks being the norm. I thought this would be good practice for the *Return to Kitty Hawk* safari.

On 13 June I met my brother Gary and cousin Eduardo at the train station in Albuquerque and started towards Los Angeles. Gary and Eduardo were to be my crew. Gary lives in Iowa City and Eduardo came up from Chile to tour the USA. For Eduardo it turned out to be an interesting event as he had been a 737 pilot for LanChile and then for Ryan Air based out of London and Dublin.

We arrived at Crystalaire airport, the starting point for the race. Crystalaire is located at the foot of the San Gabriel mountains just north of the Los Angeles basin and the western edge of the Mojave desert about 20 miles east of Palmdale. Practice days were scheduled for 17-18 June and most of the participants had already arrived when we rolled in. Among the contestants were a number of notable names: Jim and Tom Payne (holders of many US speed records), Doug Jacobs (current US Standard class champion), Andrej Kolar (Slovenia, *SeeYou* GPS software), Dave Nadler (*Ilec* software), Natalie Luebben (Germany, one of the top ranked women pilots who flew a 26.5 metre ASW-22BLE and had two young crew members to take care of the rigging!), Alfred Spindelberger (Germany, Cobra Trailers), George Moffat (US soaring legend), Petr Krejcirik (Czech Republic, recent European Club class champion), John Murray (Eastern Sailplane), Michael Bird ("Platypus" of *Sailplane & Gliding* magazine). In all there were about 45 contestants from eight countries in the race, about half of whom were in the 15m class in which I elected to "compete".

The practice days were uneventful except for the second day when I was flying fairly close to the Edwards AFB restricted area and a F-16 Thunderbird came out to greet me by flying a couple of loops around "RS". Cool!

19 June, Race Day 1: Crystalaire to Jean, NV – 166 miles
After leaving the start gate at about 12,000 feet msl, I almost had a 60 mile final glide to an outlanding. I finally found some lift right over a restricted airport where they are developing the unmanned aircraft for the USAF (landing there would not have been an option). I moved on to Barstow where I again found myself 1000 feet over the ground (but with an airport in sight) before I could connect and climb to about 12,000. From there on it was pretty much clear sailing to Jean, located about 30 miles southwest of Las Vegas.

Tragically, Gene Carapetyan, flying an ASW-27, was killed right around the release area in the mountains by Crystalaire. He was a very experienced pilot who flew out of Crystalaire and at this point the cause is not known. It was a bad start for the race!

Jean was the place were Martha Jacobs found out that Rhode Island is not one of the states of the USA. On being asked for some ID by a cashier at the Goldstrike Casino to take advantage of a discount, Martha was informed that the discount was only valid for US residents and that residents of that place (who knows where it may be – probably some Caribbean island) called Rhode Island did not qualify!

21 June, Day 2: Jean to Estrella, AZ – about 250 miles (leg cancelled)
After postponing the second leg for a day due to the accident, the weather turned for the worse and it was decided to cancel this leg since the course was largely over the most unlandable terrain in the whole race. Some, mostly motorgliders, elected to fly the leg and were very glad that they did not have to land out. "RS" was put in

its box and we proceeded to drive to Estrella. Just south of Laughlin, NV we took a wrong turn and found ourselves on a very scenic road (the old Route 66) which took us through a turn of the century mining town were we encountered a high noon shootout. I was glad that the trailer was not any longer since it was difficult to make some of the hairpin turns in the mountains.

22 June, Day 3: Estrella to Las Cruces, NM – 348 miles
The weather again was not what is expected for the western US at the end of June. However, we managed to launch from Estrella (about 35 miles south of Phoenix) and make it a contest day. After finding myself down to 1000–1500 feet a couple of times over terrain that I don't even care to think about what an outlanding would have looked like, I finally managed to get some decent altitude south of Tucson and started to make some good speed. The day was getting late though, and I landed about 30 miles short at a small airport. Bernie Gross, one of our towpilots, came in in his Cessna 180 and towed me to Las Cruces. My crew arrived a couple of hours later. It was very late before we got to our motel.

During the night we found out that the Border Patrol uses the Las Cruces airport as a helicopter base for illegal alien interception. Pilots decked out with night vision goggles took their helicopters out of the hangars and took off right besides to where some gliders were tied down. The tie-downs held!

23 June, Day 4: Las Cruces to Hobbs, NM – about 250 miles (leg cancelled)
Again the forecast looked very marginal and again we had to fly over some very interesting terrain. The race officials decided that the minimum safe soaring altitude out of Las Cruces needed to be 12,000 msl (about 7500 agl) before we got the green light to proceed to Hobbs. We launched and found weak thermals to about 11,000 feet. Some of us then found some very weak wave. I managed to climb to about 12,600. Nevertheless, the leg was scrapped.

Undaunted, some started on course and found that conditions gradually improved. About 15 miles north of Dell City, I realized that I needed a lot more altitude to cross the Guadalupe mountains. I finally got enough height to venture over them towards Carlsbad. In the meantime, the sky had blown up over the Hobbs area and the pilots that were ahead of me reported that venturing into the Hobbs area was impossible. Most of the pilots that left Las Cruces that day landed at Carlsbad; some only making it to Dell City. I landed at Carlsbad where we encountered trailer trouble. One of the hinge bolts that holds the top in place at the front of the trailer broke and it was impossible to close the trailer. After much heaving to secure the top and then undoing the tensioning springs we managed to accomplish a temporary fix.

Carlsbad was also the place where Petr slept for his second night on the concrete floor of a hangar (as we found out the next morning). He had found himself some 600 miles ahead of his crew whose motorhome had "blown up".

24 June, Day 5: Hobbs to Midlothian, TX – home of the Texas Soaring Association – about 350 miles (leg cancelled)
The clouds were less than 500 agl and the wind was blowing warm and humid from the Gulf of Mexico. Not a propitious day for soaring! We had a nice breakfast in Hobbs hosted by the US Soaring Foundation. We drove to Dallas as it would have been impossible to make a contest day with the prevailing conditions and waiting another day did not promise any better weather. For me this was a great disappointment since I had looked forward to be able to fly this leg in the two areas where I had gained most of my soaring experience.

25 June, Day 6: TSA to Eaker, OK – 141 miles
After much discussion and considering the poor weather conditions, it was decided that the task should be TSA to Eaker, OK by way of Ennis and Terrell to skirt the Dallas class B airspace. Good, we have race day! After launching and milling around for a while in marginal lift to about 4000 msl (3300 agl), I headed out towards the first turnpoint. Lift was marginal but I worked about a 1000 foot lift band. As I approached Ennis I was in need of lift but didn't find any (maybe it was because I was searching downwind of a lake – live and learn). I landed at Ennis after an exhausting 20 mile flight! Maybe it was punishment for my asking at the pilot meeting if we could get points for driving! My consolation was that John Murray landed a few minutes after I did and I beat him on points since I had the faster leg! John was *not* a happy man.

26 June, rest day: a really hard drive to Silver Creek, IL.

27 June, Day 7: Silver Creek, IL to Terry, IN – 198 miles
Silver Creek Gliderport is situated about 30 miles east of St. Louis. The club owns what used to be a farm – farm house, barns and silos all included. Because of the copious rain everything was very green and pastoral. Beautiful. As launch time approached we were greeted by some popping cu – what a change! After we got in the air, lift took us to about 5000 agl; not bad! I set off on course but didn't find anything for the next 20 miles. Dreading a repeat of my Dallas fiasco, I finally connected with some lift under some cloud that was still working. However my working band only took me to about 3500 and the sky was turning blue.

Valiantly I ground on and managed to fly to within 30 miles of Terry, IN where I landed on a beautifully maintained grass strip belonging to a laid-off United Airlines pilot. He told me that the cement pad situated about 100 feet from his house used to house a hangar with three airplanes. Three years ago a tornado touched down, swept the hangar away, and the only thing found some distance away was the cowling of one of the planes. His house was largely untouched. Just maybe, we were not meant to fly after all!

28 June, Day 8: Terry to Caeser Creek, OH –122 miles
As we proceeded with the launch, a storm front moved into the area and gliders rained from the sky. The leg was scrapped. I was next in line to launch and Linda Murray asked me if I wanted to get into the air. I'm strapped in and ready to go; the prospects of staying in the air are not good but what the heck, we are here to fly! Let's go! The tow took me to a construction site where I proceeded to climb to 2700 agl in lift so weak normally I would have not dared to venture away from *any* airport, never mind traversing unknown terrain. But hey, these were not normal conditions and after I got low a couple of times, the lift got better.

Half way to Caesar Creek I managed to climb to 5500 and have no further thought of landing out. I arrived at

Caesar Creek, one of the premier gliding locations in the US Northeast. It's a beautiful setting among woods, farmed fields, dams, and little towns. The club has about 200 members and is impeccably maintained. A farmhouse has been converted into a clubhouse, the barn serves as the towplane hangar, the silo is now a lookout tower. There's a campground set among trees – all in all, a great place to spent some time with the entire family.

29 June, rest day
The Air Force Museum in Dayton is probably the largest airplane museum in the entire USA. Most of the exhibits are housed in three huge hangars and consist of planes starting with the Wright Flyer to the latest prototypes of unmanned planes. We spent the better part of a day there and it was not nearly enough to take it all in properly. I did confirm however, that it was a Thunderbird that flew loops around me over the Mojave desert!

30 June, Day 9: Caesar Creek to Gallipolis, OH – 113 miles
As we launched to fly towards our next destination, Gallipolis, on the Ohio/West Virginia border, I found myself in a thermal with over twenty gliders. This gaggle in one thermal wasn't because the thermal was particularly strong but this was about the only lift that we could find. After setting out, my trace shows that I left the next thermals at progressively lower altitudes. Finally, oh joy! I found something that took me to about 2800 agl. Well, that was the very last thermal I found and had to land about 40 miles out.

A note on the landout: my flight computer told me that there was an airport about four miles away so I headed towards it – Mr. Computer says that I'm right on top of it but I see no airport. Luckily I have been eyeing an alternative field – the crop is so poor that it was more brown than green; I selected the brownest patch on top of a slight rise and accomplish an uneventful landing. I never found out if there really was an airport! I call my crew with my GPS coordinates; unfortunately, it was the day the Land Cruiser was short staffed! Eduardo was on his way to Gallipolis and beyond with Bernie in the towplane.

I wandered over to a nearby house where I saw some kids observing my predicament. As I got closer, they ran indoors, slammed the door shut and closed the curtains! After gingerly knocking on the door, the lady of the house answered, the children peeking from behind the curtains. After explaining what I was, I asked for directions. I call my brother – he's only about ten miles away so the wait should be short. Half an hour later I called again and he's lost! He lost his glasses and couldn't imput the GPS coordinates or find, nor read, road signs! The man of the house then appeared and told me not to worry – he had lived there for over twenty years and said people can never find the place. Telling my brother to stay put, we went to find him instead. This is a change! After a five minute drive we accomplish the task!

Meanwhile, in the air, some of the pilots had indeed found enough lift for a final glide to Gallipolis. Unbeknownst to most of them, Gallipolis sits behind some mountains that can't be seen from the distance because of the haze (note: study your chart before heading out on course). As they got closer, their glide computers still indicated enough height to make it but this wall of terrain was coming up with no indication that the airport was anywhere before the ground met the gliders regardless of what the computer said. There's no more lift to be had – not good! But there is a cut with a road that leads to the town, airport and a safe landing. As they scraped through this pass with a few hundred feet to spare, some gaining maybe a hundred feet because of a very slight ridge lift effect, the airport came into view and all was well as they come in *en masse* and land. I'm so sorry I missed that excitement! Late that night we arrived at Newcastle, VA.

1 July, rest day

2 July: Newcastle to Petersburg, VA (leg cancelled)
Again, the setting is absolutely gorgeous. Nestled among the Shenandoah mountains is the Newcastle gliderport, one of the premier locations for ridge soaring in the USA. Unfortunately we were not able to experience the soaring that area has to offer due to rain and generally bad weather associated with the remains of a hurricane. The weather was not forecast to improve until 4 July. As we had to be in Kitty Hawk, NC for the 4 July finale to our race, we saddled up and drove to Manteo, NC, the staging ground for our last leg.

July 4: Manteo to Kitty Hawk – 6 miles
Yes, you read correctly, the last flight including the tow was all of six miles. The National Park Service graciously allows us to land on the hallowed grounds where Orville and Wilbur first flew their ungainly machines. This was the first time the Park Service had permitted such use. So, the problem for us glider drivers was how to get there without incurring the risk of ditching in the many rivers (aligators), swamps (aligators plus snakes) or even worse, the ocean (sharks). The solution was Manteo Airport, a stone's throw away from Kitty Hawk!

So, the drill on 4 July was not to get everybody into the air and race to First Flight Field, but an orderly assigned time for every glider to be towed high enough for a safe final glide in. We were allowed to zoom over the monument at no less than 300 feet, pull up to pattern and land on the sacred field. It was a very special moment and a very fitting end to our adventure!

Although I only managed to place in the middle of my class, I will always consider this event as one of the highlights of my soaring career. Sure, the weather could have been a lot better but the opportunity to fly with, and learn from, so many accomplished pilots was a unique opportunity. Also, having to fly in very marginal conditions over unknown terrain on a one way flight was not something a relative newcomer to the soaring scene had experienced. Would I do it again? In a heartbeat.

Special thanks to crew Gary and Eduardo who endured all the road miles without having the privilege of seeing Mother Earth from a glider pilot's vantage point and to the organizers who could not have known what they were taking on when they dreamt up this race. ❖

In 1998 Rolf was living in Lubbock, Texas when he got an introductory ride for his 44th birthday. Bitten, he earned his licence a year thereafter. In January 2000 he took delivery of his Glasflügel 304CZ and flew with the Texas Soaring Association where he was bitten by the cross-country bug. Rolf moved back to Calgary this year and, when not at work, is at Cu Nim attempting other cross-country adventures in "RS".

A spastic quad in the sky?

Marlowe Horn

Doug Scott, Ontario Zone Director, met Marlowe at York and asked her to share her story with us.

ABOUT TEN YEARS AGO, when I was nine, some friends invited my sister and myself for a day at York Soaring, northwest of Toronto. Rob was a glider pilot there and offered to take us up in turns. I went up first and ended up stealing all the airtime because I really enjoyed it. Two years later, I was in an automobile accident with catastrophic injuries. All this left me medically categorized as "spastic quadriplegic" with no speaking voice. Now I am in long-term rehab learning to walk and talk again. I have trouble with fine motor movements but these are gradually returning.

Eight years after my car accident, with one year left in high school, I was invited to make a comeback to the sky. My mother had read the article on accessible gliding in the summer issue of *Abilities* magazine. Remembering my enthusiasm for gliding, she could not believe that such arrangements were being made at York Soaring. She contacted the Canadian Paraplegic Association who led her to Charles Petersen. Charles explained "The Longest Day" event at York and told us we were welcome to come up even though the accessible event was over.

It was a very hot day, but I ready for an adventure! It took us about an hour to drive up on a scenic route through the Caledon Hills. At the club, we watched as a long row of gliders got towed up, up, up and away! We found Charles and he discussed the possibility of my actually going up as a guest that day! He sweet-talked someone in the office and I waited my turn working on my basic summer tan.

The issues of my gliding flight were: which glider would I use, how would I get into it, and who would pilot me. The glider chosen to take me up was a wider than average one. The nose could be held down at the front to make it easier for me to get into. Since I have some mobility in my legs and can transfer, I straddled one side of the cockpit to get in. As I was supported on my back from the other side of the glider, my other leg was swung over. I adjusted my seating then had a very tight seat belt put on.

When I told Charles, who was originally going to take me up, that I would flip him upside-down, he disappeared and Richard "the Daredevil" Sawyer showed up to do the honours as designated pilot. He and I agreed on the hand signals to help communication: left arm up for 'yes', right arm up for 'no', to answer questions while we were soaring high in another world. My mother noticed that the foot pedals were in range of my feet so suggested that something be done about them or Richard may have the flight of his life. After they were pushed up out of the way, we were off!!

The takeoff as well as the landing was so soft and smooth, thanks to Richard. Sleeping on a feather pillow couldn't have been more comfortable. Up in the air, we found an updraft and started circling. Two other gliders joined us. When we were high enough, we broke away and were on our own. Travelling silently across the landscape, below us we saw Lake Luther. When I was in the air, I could see a lot farther than the average eyes. It was enthralling! Such a refreshing experience I would recommend to any adventurous spirit. Every gliding club should consider accommodating flights for persons with disabilities. Step-by-step problem solving is all it takes to get anyone in the air! ❖

A note from Charles Petersen:
Marlowe was one of more than seventy persons with disabilities who tasted gliding this summer, and what an appetite for our sport they have! The magical sense of freedom that we all savour is even richer for someone whose horizons are confined, even on the ground. Kevin R. said of his flight "I've been in that chair for 19 years, and this is the most alive I've felt in all that time." Gord W. wrote, "I had a FANTASTIC experience on Sunday. I'm very impressed with the *Freedom's Wings* program and the professionalism of the York Soaring club. My flight was certainly the highlight of my year! (if not in my life)."

2003 was the second visit by "Freedom's Wings International", who have mentored our initiative to establish a Canadian program to mirror theirs. Our goals were four:

1 Validate the community demand for such a program,
2 Validate the volunteer ethic at York Soaring,
3 Validate the 'newsworthiness'; the ability to attract press to make sponsorship more attractive,
4 Establish a strategic alliance with one or more organizations for people with disabilities.

We succeeded in all four; almost every flyable day we were over-capacity and used additional aircraft from the club fleet to satisfy the demand; the membership were enthusiastic, contributing time and in some cases, unsolicited funds, generously; we had press coverage, both in the disabled media and mainstream, including CITY TV and CBC; and we are cooperating with "K W Access-Ability" and the Canadian Paraplegic Association to establish and run Freedom's Wings Canada.

At the end of August we submitted an application for funding to the Trillium Foundation, and expect an answer by Christmas. If successful, we will acquire a new *Peregrine* (the American-produced Krosno), and have it flying at York for the 2004 season. That will make York an 'accessible' club — we will offer "Inspiration Flights" (intro rides) to visitors with disabilities, and to those of them who have the necessary use of hands, flight lessons leading to licence. Then we'll have to get hand controls in the back seat for instructors with disabilities. The hand controls offer a supplementary 'rudder stick', which can be pushed (left rudder) or pulled (right rudder), and a modified spoiler control that permits locking spoilers open in several different positions.

We expect to welcome a new and enthusiastic population into our sport, and the PR and corporate funding will also be welcome. But the warm feeling that follows a flight with one of these folks enriches further the experience that we find so fulfilling.

⇨ **p21**

L'importation d'un planeur

Marc Arsenault, Outardes

On getting a sailplane into Canada. The English text can be read at <*www3.sympatico.ca/marcarsenault/articles/import.htm*>

TOUT D'ABORD prenez deux semaines de congé, vous en aurez besoin! Pourquoi me suis-je embarqué dans une pareille affaire? «Ah, la nécessité est la mère de toute créativité». L'heure avait sonné pour mettre en route le processus d'acquisition d'un appareil personnel. Mon choix, longuement cogité, s'était fixé sur un PIK-20, préférablement le modèle B. Il fallait maintenant faire du «magasinage». Naturellement, je suis fort conscient d'ouvrir une jolie boîte de Pendor juste avec l'arrêtée de ce choix. Mais ce sera le sujet d'un autre article.

Plusieurs personnes rationnelles m'avaient suggéré d'éviter les importations. Les troubles occasionnés n'en valaient pas la peine. Mais plus j'étudiais les prérequis, plus l'inaccessible ou trop compliqué devenait graduellement plus censé et méthodique. Les procédures suivantes ont tout de même été apprises et négociées pendant l'opération. Une bonne dose de lectures et de recherches téléphoniques et sur le web au préalable furent essentielles. Il faut avouer qu'à mon insu, l'élément de chance s'en est mêlé et c'est un peu à cause de ce dernier que je présente ces lignes, afin de vous éviter de sérieuses encombres.

La raison primordiale pour l'achat de ce planeur à l'extérieur du Canada, soit aux États-Unis, fut l'absence d'offre du modèle convoité et bien entendu un taux de change des devises devenu attrayant. Ce dernier est très stimulant devant l'adversité ...

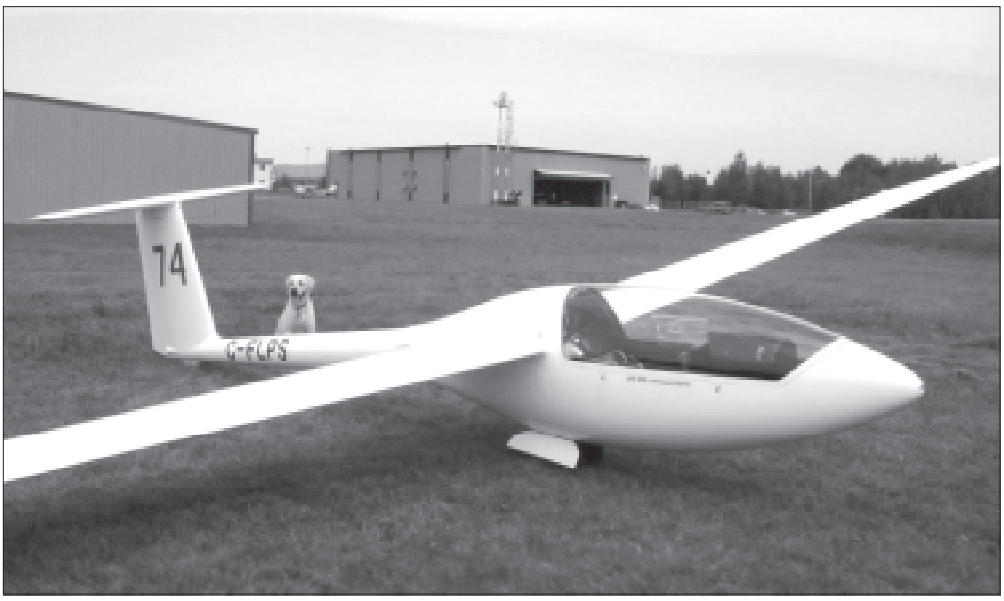
Primo, il fallait vérifier avec mon éventuel vendeur, résidant au Colorado, les données de bases soit l'identification, le numéro de série et l'année de production. Ainsi j'ai pu déterminer si ce planeur était «certifiable» au Canada. À cet égard, j'ai consulté le site de Transport Canada (TC): <*www. tc.gc.ca/quebec/fr/aeronefs/certification.htm*>. Le site sera la base de recherches. En suivant les liens, vous trouverez l'URL suivant: <*www.tc.gc.ca/aviation/stc/intro_f.html*>. Ce dernier consiste à la banque de données des certificats de type de tous les aéronefs permis de voler au Canada. Le document qui vous intéresse vous indiquera verbatum ce qu'on attend de votre futur planeur. Soyez vigilants. Certains numéros de séries ne seront pas acceptables pour nos autorités. Ceci pourrait coûter très cher de vous retrouver dans un pareille situation. Apprenez le certificat de type par cœur!

Ensuite, vous devez vérifier si le planeur a été entretenu selon les normes du manufacturier. Donc, est-ce que les Consignes de Navigabilité (CN: Airworthiness Directives – AD), Bulletins de Services (BS: Service Bulletin – SB) ont été complétés. Il faut vérifier les détails du fabricant mais aussi de tous les sous-traitants. Pour voir la liste applicable à votre planeur consultez: <*http://www.tc.gc.ca/aviation/AD/ad_f.htm*>. Autre point important: TC s'attend à ce que vous produisiez une liste des BS. Ces derniers ne sont pas conservés sur la banque de données de TC. Vous pourrez les obtenir du vendeur (que vous espérez minutieux) ou bien encore du fabricant, s'il est toujours en affaire. L'alternative est de consulter un autre proprio. Il est fort probable que l'un d'entre eux les détiennent. La meilleure façon de se rejoindre est à la table ronde de l'ACVV ou bien encore au newsgroup *rec.aviation.soaring*. Nos collègues de partout dans le monde sont des plus amicaux et connaisseurs. Un autre bémol: les CN canadiennes sont parfois différentes des CN américaines. De plus, certains appareils fabriqués par des planeuristes reconnus pourraient ne pas être pas certifiés comme tel aux États-Unis: ils peuvent être immatriculés selon la classe expérimentale. Cette condition pourrait annuler l'éligibilité à la certification canadienne. Il faut éviter une pareille situation.

DOCUMENTS

Maintenant que vous êtes certain que l'appareil est «importable» relativement à la navigabilité, il vous faut vérifier la validité des documents américains et autres, oui autres. Vous devez avoir accès au certificat d'immatriculation et au certificat de navigabilité. Requis et de très grande importance sont les certificats de navigabilités pour l'exportation des divers pays où le planeur a évolué. Dans mon cas, il fallait celui de la Finlande où C-FLPS fut construit puis exporté aux É.U. Ensuite, le nouveau qui devra être émis par un mécanicien autorisé américain, pour l'exportation au Canada. À cette liste, on ajoute le dernier rapport de masse et centrage, le carnet de technique (les américains sont dispensés de tenir un carnet de bord d'aéronef pour les planeurs). Toutes modifications majeures complétées sur le planeur se retrouveront soit par un STC (Supplemental Type Certificate), soit par un formulaire de la Federal Aviation Administration (FAA) 337 qui correspond à une «modification de terrain» que nous ne retrouvons pas au Canada. N'oubliez pas le manuel de vol! À ces documents volants, il faudra penser de vérifier le certificat d'immatriculation de la remorque. Avant de faire ma lointaine visite, j'avais demandé à mon vendeur de me faire des copies et les faire suivre par couriel. Si vous ne pouvez accéder à ces documents, allez voir un autre planeur, ailleurs. Vous ne pourrez pas «confortablement» procédé à cette aventure.

Avant d'aller visiter le planeur, il vous faudra réserver les services d'un mécanicien certifié d'aéronef. Une inspection à l'importation sera requise avant de procéder à la certification canadienne qui sera exécutée par un inspecteur privé agréé par Transport Canada. La région de Montréal compte deux de ces experts qui vérifieront toutes les exigences requises avant d'émettre votre certificat de navigabilité. Vous devrez compter environ 700 dollars pour ce service. Ceci, sans compter les frais de votre mécanicien. Récapitulons: Trois inspections seront requises — Inspection pour certificat de navigabilité d'exportation des É.U (mécano américain), Inspection pour la conformité au certificat type à l'importation (votre mécano), et Inspection pour l'obtention du certificat de navigabilité (représentant TC).



VISITE
Viendra le jour de la visite avant l'achat. Idéalement, si vous êtes néophyte en la matière, il serait très acceptable de vous doter de l'assistance technique d'un collègue informé, sinon d'un bon mécanicien. Sans se limiter à mes observations il faudra penser à inspecter de fond en comble l'oiseau et sa remorque, bien entendu. Surveillez la corrosion, l'absence de friction et de jeu dans les contrôles, l'articulation du train d'atterrissage et du contrôle de largage. L'état général extérieur prendra un bon moment. Soyez vigilants pour des indices d'accidents dans la décoloration des surfaces, l'état de la canopée, des ceintures de sécurité, le matériel textile détérioré par les UV. L'état des ballast devrait être vérifié ainsi que le fonctionnement général des instruments et de la radio.

Saisissez le moment pour prendre une photo numérique de la plaque ignifuge de votre futur planeur. TC acceptera une copie calquée sur une feuille de papier à l'aide d'un crayon à mine! Évitez les mauvais sorts: les photos numériques sont parfaites et sans encombres. Une photo du tableau de bord sera requise également.

Le parachute est fourni? Est-il en bon état (rangement soigné au sec)? Quand fut-il replié la dernière fois? Vous retrouverez un document à l'effet à l'intérieur du parachute dans une pochette. Ce parachute conviendra-t-il à votre poids?

Quant à la remorque, pourra-t-elle tenir le coup si vous avez à rouler plusieurs kilomètres. Pouvez-vous brancher les feux sur votre propre automobile? Est-ce que l'attache est conventionnelle avec celle de votre voiture?

INSPECTION DES DOCUMENTS
Bon, le planeur semble être le «bonbon» si bien présenté dans la vitrine. Il est superbe. Faut-il encore que les papiers soient en ordre! Prenez le temps de vous asseoir et faites l'inspection attentive des documents. Si vous êtes comme moi, un bon café sera de mise. L'étape est nécessaire. La validité des documents sera confirmée. Évidemment, bien lire tout le livret technique pour bien comprendre et observer que toutes les CN et les BS sont à jour. Vous pourrez également y retrouver toutes les réparations majeures, STC ou bien encore les «337» qui ont été exécutées durant la vie du planeur. Si certaines d'entre elles sont manquantes, il faudra les accomplir lors de l'inspection canadienne. Une bonne indication de la bonne tenue des documents est sans aucun doute la préservation de toutes les factures associées.

OFFRE D'ACHAT
Toujours fort enthousiaste, il semblerait que les papiers sont en ordre et que vous êtes fin prêt à faire l'offre d'achat de votre vie. L'idéal est d'avoir un contrat de vente rédigé avant votre départ. Sans entrer dans les détails innombrables qu'un spécialiste en droit civil international pourrait vous formuler, il serait tout de même opportun d'inclure les détails suivants: Le modèle, le manufacturier, l'année de production, le numéro de série, le nom et adresse de l'acheteur et du vendeur. Également indiquer que l'aéronef n'a jamais été accidenté sinon les détails des réparations. Il faudrait indiquer que le planeur n'est pas sujet à des liens financiers quelconques soit des prêts bancaires, dettes gouvernementales etc ... Vous pouvez y ajouter toute condition que vous jugerez pertinentes, tels les accessoires connexes du style, système oxygène, parachutes, remorque en état de roulement etc ... Le moment est propice pour demander à votre vendeur de produire l'inspection pour l'émission du certificat de navigabilité à l'exportation. Bien qu'optionnelle, cette étape vous évitera des maux de tête un peu plus tard. Une note importante sur votre acte de vente est à remarquer. Il faut bien indiquer que le planeur est vendu et livré à la date de la transaction. Un menu détail qu'il a fallu que je corrige afin de permettre l'immatriculation de C-FLPS. À cet effet, un formulaire précis est disponible chez TC à titre d'acte de vente minimum aux yeux des autorités canadiennes.

Une demande de retrait de l'immatriculation américaine devra être faite auprès de la FAA par votre vendeur. Ce document est absolument nécessaire pour l'immatriculation canadienne. Une seule immatriculation peut exister pour un numéro de série!

ARRIVÉE À LA FRONTIÈRE
Voilà, c'est fait, vous avez payé le montant bien négocié de votre machine de rêve. Vous avez accroché la remorque à la vieille bagnole (pas de nouvelle automobile cette année, chéri!) et vous avez mis le cap nord via direct. Lorsque vous aurez roulé jusqu'à la frontière canadienne avec ce gros sourire débile accroché aux lèvres, rappelez-vous bien stoïquement que vous aurez à payer la TPS et éventuellement la taxe provinciale de vente. En effet, même si votre planeur n'est pas neuf et que vous l'achetez d'un particulier, il est considéré comme étant «en consigne» par les ministères des finances de vos gouvernements préférés!

Transport Canada exigera que le formulaire 13-0132: Formulaire d'importation de véhicules – Formulaire 1 soit rempli par l'agent de Douanes et Accises Canada. Également la TPS sera chargée à ce moment. Les cartes de crédit sont acceptées.

DEMANDE DE CERTIFICAT D'IMMATRICULATION

Une bonne lecture du site suivant: <*http://www.tc.gc.ca/aviationcivile/generale/ccarcs/faireimmatriculer.htm*> vous donnera la bonne marche à suivre. Mais pour simplifier l'exercice il faut comprendre que les lettres d'immatriculation sont disponibles suivant une démarche très simple:

- Avoir le certificat de retrait des lettres américaines de la FAA.
- Avoir l'acte de vente.
- Avoir en main l'ancien certificat (américain) d'immatriculation.
- Remplir la demande d'immatriculation, formulaire TC 26-0478
- Payé la redevance de $110.
- S'assurer que les lettres que vous apposerez sur le planeur rencontrent avec précision les exigences de format de TC <*www.tc.gc.ca/aviationcivile/generale/CCARCS/MPIA/CH4.htm#4_2*>
- Si vous désirez réserver des lettres spéciales vous aurez à débourser $140 de redevances supplémentaires.

Liste des documents nécessaires à l'importation

- Livret de bord (si autre que les É.U.)
- Livret technique
- Nouveau livret de bord canadien avec une entrée indiquant la continuité des heures provenant du livret américain
- Rapport de masse et centrage
- Rapport d'amendement de masse et centrage (s'il y a lieu)
- Nouveaux livrets techniques cellule et modifications (base d'entretien préférée)
- Formulaire TC 24-0043: demande de certificat de navigabilité (3 copies)
- Certificat d'immatriculation américain
- Certificat de navigabilité américain
- Certificats de navigabilité pour exportation de tous les pays concernés
- Copie de la certification du retrait de l'ancienne immatriculation de la FAA
- Copie du certificat d'immatriculation canadien
- Copie (photo) de la plaque ignifuge
- Photo du tableau de bord
- Liste de toutes les modifications de type 337
- Liste de toutes les STC appliquées
- Formulaire TC MSI 26: Procédures d'Importation
- Liste de défectuosités et rectifications dans le processus d'importation TC 61-0008.
- Liste de tous les Bulletins de Services
- Rapport d'inspection de votre mécanicien
- Formulaire TC 24-0045: Certificat de conformité (réparation ou modification)
- Demande d'immatriculation: TC 26-0478

- Vous pouvez choisir vos lettres au: <*www. tc.gc.ca/aviation/activepages/ccarcs/fr/default_f.asp?x_lang=f*>
- Vous devrez effacer ou recouvrir en permanence les anciennes marques américaines.

Une fois que vous aurez apposé les lettres sur votre appareil, vous pourrez recevoir votre certificat de navigabilité. L'inspecteur sera assez sévère sur ce détail, soyez donc préparés. Quant aux «cocardes» de course, TC en est indifférent. Dans mon cas «74» restera bien en vue. L'heureuse coïncidence voulait qu'il s'agisse de l'année de naissance de mon héros personnel. N'y a-t-il pas un gamin en chaque vélivole?

INSPECTION CANADIENNE

Quelle bonheur, vous voilà arrivé à la maison avec cette grande remorque devant la résidence familiale. Les policiers du coin se demandaient bien à cette époque si je ne décelais pas des armes à destruction massive là-dedans. Le format leur semblait un tantinet suspect.

Il faudra penser à faire maintenant la visite d'inspection pour s'assurer que le planeur remplira toutes les normes (mécaniques et administratives) pour le certificat type de l'appareil. Entre autre, la conformité de toutes les CN du manufacturier ainsi que pour les accessoires du style arrimage des contrôles l'Hôtellier, BS du manufacturier (au Canada le BS ne sont pas optionnels), les STC ainsi qu'une inspection générale selon les normes d'entretien de TC. C'est à ce moment que vous installerez à la lettre toutes les affichettes (placards) telles qu'indiquées sur votre certificat type. Un fait intéressant ici est à noter que les PIK doivent porter une note qui ordonne: AUCUN VOL EN NUAGE PERMIS (CLOUD FLYING PROHIBITED). Croyez le ou non. J'ai vérifié une série d'autres planeurs et il s'agirait du seul planeur à exiger pareille ordonnance. Qu'on se le dise: «Vélivoles maîtres des PIK, évitez l'intérieur des nuages!»

Toutes les opérations que votre mécano exécutera seront notées sur le formulaire TC MSI 26 en 3 exemplaires. À noter seront l'inspection comme tel, la fermeture du carnet de vol américain et l'ouverture des carnets canadiens, la vérification/exécution des CN et BS, etc.

INSPECTION OFFICIELLE

Vous arrivez en fin de course, c'est l'inspection par le représentant de TC. Vous aurez à assembler le planeur prêt à voler. Tout sera scruté à la loupe, jusqu'à la date d'inspection marquée sur la bouteille d'oxygène. Dans un monde utopique où tout est parfait, on vous émet LE papier et vous êtes en route pour le club. Hélas, je n'habite pas dans ce bled! L'inspecteur a trouvé des défectuosités (toutes administratives) que le mécanicien avait à rectifier en se servant du formulaire TC 61-0008 et comme de nouvelles opérations avaient été produites, de nouveaux formulaires (soupir) MSI 26 furent requis.

LA REMORQUE

Finalement, la remorque devra être immatriculée dans la province où le planeur sera basé. Au Québec, on demande que l'ancien certificat d'enregistrement soit remis avec une copie de l'acte de vente et l'ancienne plaque d'immatriculation. Si la remorque fut construite commercialement, vous devrez prouver la masse de cette dernière. Cette preuve pourra provenir de l'ancien certificat américain sinon par une «pesée officielle». Si votre remorque est fabriquée artisanalement, vous n'aurez qu'à certifier personnellement sa masse pour l'obtention de vos papiers.

La bonne fortune voulait qu'après une semaine depuis la traversée de la frontière, l'inaccessible étoile était finalement à la portée de la main. Le certificat de navigabilité fut émis sans autre condition. Un ami bien connu de notre sport me mentionnait que lorsqu'on se dote d'un appareil personnel, on doit payer avec un mois de mauvaise météo. Je vous offre mes excuses, mais je n'ai qu'une part de blâme puisque deux de mes co-membres aux Outardes ont également fait l'acquisition de planeur en début de saison!

Note finale: la plupart des formulaires sont disponibles sur le web. ❖

Motorgliders are the best!

Ken Armstrong

A power pilot's thoughts on their benefits

HAD TO HAVE ONE. My taildragger, a normally aspirated *Katana Xtreme,* now has 275 hours on it and many folks have been enthralled by its performance and declare they need one of their own. Truth to tell, I enjoy the soaring more when I have a passenger and can live vicariously through their delight. As I turn the controls over to them to seek lift, I often consider the benefits a motorglider has over a pure glider or a power plane. After all, it's really a combination of the two, so shouldn't it have the limitations of both?

In a word, No! I feel the motorglider has the benefits of each. Gliders are wonderful, but they are limited by the lift they seek. If the vertical air currents evaporate, then so does their flight. I admire the courage of those who seek to claim the multitudinous cross-country and altitude awards as they venture forth far away from the safety of their home airfield. As their crews launch in ground-bound SUVs with trailer in tow to retrieve these intrepid flyers, I marvel at the numerous challenges to seeking a record. My hat is tipped to glider pilots. Gliders are also limiting as cross-country transportation as they need to go where the lift is — and that is often in the wrong direction.

To their benefit, they do have excellent L/D ratios and therefore can glide a long way. They also possess low stall speeds and are generally built quite strongly. This means that they have a very large scope of landing areas (or airports) available from whatever altitude they operate at. Moreover, the low stall speed when combined with steep descents with the aid of dive brakes allows them to clear obstacles and land in short fields — with speeds that minimize impact and potential damage.

What can one say of powerplanes. Having owned sixteen, I can testify to their ability to whisk one cross-country almost without regard to the wind — whether it is vertical or horizontal. In fact, power pilots have a different name for the vertical air currents we call lift and sink. It's called turbulence! When flying a powered aircraft, we also tend to limit ourselves to developed airports and paved runways — for most aircraft. While these aircraft meet the applicable requirements for structure and strength, most of us don't want to punish ourselves by landing (crashing) them into short, tree-lined fields.

Moreover, powerplanes aren't overly efficient with their seat miles per gallon considerations, even when compared to a passenger car. Flying a six place aircraft from Vancouver to Calgary at 150 mph will take about four hours and $260 in fuel. A passenger car trip would take all day and cost less than a hundred dollars. Forget the cost of reserve towards overhaul of propeller and engine, aircraft insurance, and all the other niggly costs as the true price for the flight would look scary.

If you fly just to have fun and your need is to simply soar above the landscape, I claim that the ultimate aircraft is a motorglider. Note I did not say compromise. It's true these aircraft aren't designed to carry large useful loads but there are no real trade offs for these self-launching gliders, as they are licensed.

And here is the trimming for that meat — motorgliders are not encumbered by those other aircraft's limitations and costs. Moreover, because they are licensed as gliders, the lesser medical requirements apply. With our aging population, this can be an important consideration.

Here is what the MG means to me. I can go cross-country with two aboard and a modicum of baggage in a most efficient manner and burn inexpensive fuel. At a conservative cruising speed of 122 mph true, the fuel flow produces nearly 41 mpg efficiency. And that's in straight lines. The same trip to Calgary takes under five hours and costs $56.45 in gas.

While the aircraft is only powered by an 81 hp engine, the cruising rate of climb is at least 600 fpm (thanks to the high lift wings) and we have been as high as we are legally permitted over the Rockies. (The service ceiling is in excess of 17,000 feet.) Visibility is exceptional with the wrap-around canopy, and the slow speed handling and maneuverability allows the plane to turn on a loonie (flying is more expensive than yesteryear).

Almost any small, open location is a suitable landing area. This includes the Coquihalla Toll Gates near the pass, the highway, truck brake checks or farmers fields, empty school yards to name a few. With a touchdown speed of 42 knots and the strong wings inherent with gliders, the tree tops are even suitable — more or less — although the insurance company wouldn't agree.

If one encounters inclement weather, the narrow turn radius is a godsend. Ditto for the abilities that the speed brakes provide — although they don't look like they have a large surface area, their drag is such that one can extend the dive brakes on the Xtreme and go straight down without exceeding V_{ne}. This ability avoids being sucked up into clouds in strong lift and can get one out of marginal conditions — very quickly. I have always been aware that if one got caught above cloud that the ability to extend the brakes and never overstress the aircraft with a high airspeed excursion is a wonderful safety benefit.

While I can't speak for every motorglider, the Xtreme's cockpit is so strong that outrageously high energy crashes have generally led to the occupants emerging from the carnage with little or no injuries. This includes plunges in the mountains and an inverted landing ⇨ **p21**

safety & training

SPEED CONTROL IN EARLY AND LATER FLIGHTS

WHEN YOU STARTED FLYING, you may have become a little frustrated with the three dimensions of the flying environment and with trying to control the plane with three controls at once ... some student pilots do. This may have persisted for a few sessions until things began to click into place. And then you wondered, what was all the fuss about anyway? Let's review speed control.

Speed can be controlled and/or monitored in three ways: by listening to the air noise as the plane flies at different speeds, by the attitude at which the plane flies, or by monitoring the airspeed indicator (ASI).

Flying by sound Let's listen to the glider. This is an excellent technique and, once we have developed our hearing system to tune it to speed and to the glider we are flying, the method will be with us for all our flying, in any weather, whether or not the ASI is functioning. Think of that – they sometimes malfunction. One or two disadvantages exist which we must beware of. If we fly sideways (or yaw), more noise; and when we change aircraft, different noise. Remember an older glider like the Blanik is quite a bit noisier than a Puchacz, for example, and a 1-26 is also noisier than a PW-5. Don't be fooled when you decide to fly the older glider for the first time in a month. You could find yourself flying it much too slowly!

Flying by Attitude By *attitude* I mean the angle that the glider makes with the horizon – it could be nose high for example, or we could have a nose down attitude. It will vary a bit in turbulence, but if we keep the attitude as constant as we can by making small (and I mean small) control movements, then the speed will average out to the usual speed for that attitude. If, when practising gentle turns, the nose moves down (or should I say that the attitude becomes nose down?) then the speed will begin to increase. You may not notice this at first because some older two-seaters will only increase speed slowly, so that when you pull back on the stick to slow down again, the nose may go too high!

Compare the above to the very new PW-6 which speeds up rapidly in a nose down attitude, and with little increase in airflow noise. Even if you hadn't noticed until the fellow in the back seat said, "... Er, do you think our nose is dropping (there I go again) or our speed is increasing?" Then if we merely adjust the attitude back to *normal* by a small movement of the stick, the speed will slowly come back also to the desired normal value. If we have no horizon to look at so that we can notice these attitude changes, the above procedure becomes a bit more awkward but the principle still applies.

Chasing the ASI This is a hopeless technique. The ASI should be used to monitor the speed, ie. to look at every now and then – because we should, of course, be looking out more than 95% of the time. If we wish to fly at 45 knots, the needle position will be, for example, at 3 o'clock. A mere glance then will tell us that if is at, say, 4 o'clock, then we are a bit too fast. The fact that it is 49 knots doesn't much matter – we now know that we are flying a bit above our goal speed. If we chase the needle we often overcontrol and the plane will overshoot the desired speed, requiring us to control the other way again! (Airline pilots use markers or "bugs" on their ASI to show desired speeds, and new gliders now have a yellow bug at the recommended minimum approach speed.)

We can use attitude to maintain our position behind the towplane; our vertical position, that is. If for example our nose is too high, maybe some turbulence put it up there, then we will climb relative to the towplane. So a small nose down movement to adjust the glider's attitude to *place the tug back into the imaginary sight on the canopy* will slow this relative climb, and the glider will slowly revert back to the chosen vertical position behind the tug. Note that as we get into the correct position we will have adjusted the attitude back to normal for the tow, because we will have been continuously adjusting the attitude to keep the tug in our *imaginary sight*.

Attitude can be a great help with speed control when coming in to land when it is more vital to fly at the correct speed. At such times when we are busy with dive brakes, looking at obstacles to avoid, and thinking about an alternate landing area, etc, we can only monitor the ASI every now and then, but it is vital that we do so.

For example, we could be flying downwind at our usual airspeed, but because of a strong wind, our groundspeed is much higher. Now, because of our low altitude compared to normal we *notice* our apparent high airspeed. We now have to beware of inadvertently pulling back to fly at our *usual airspeed* – in such a case we could well do this sub-consciously and find ourselves stalled and spinning at a very low altitude. It now becomes academic knowing you are in a spin so close to the ground – better to avoid it in the first place. So, monitor the ASI!

Listening to the speed helps in the circuit too, but say we are sideslipping? And what if we are using flaps? Different noise each time — so monitor the ASI! The glider's attitude helps also – it will be nose down compared to our normal flying attitude, but as we fly on final through a strong wind gradient, a *normal* attitude won't help us maintain our speed. The glider has inertia – it refuses to increase speed quickly enough, we may have to stuff that nose down having seen the speed drop off – so monitor the ASI.

Ian Oldaker, chairman FT&S committee

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the year between ... from page 4

Where do they touch down? What will happen if an airplane hits the fence? What does all of this imply for your circuits?

On a day with a roaring crosswind, could you land across your runway? What was different? What was the same? Is your club going to be making a dual cross-country aerotow to another site? Try to be on board to do the circuit and landing at the destination, then ask for feedback. Take a ride at another club. What choices did your pilot make? Would you have turned in the same places? Why or why not? Now, when you have done all of this, ask an instructor to place a marker somewhere beside the runway after you take off then try to find it in the air and land next to it.

Learn how the airplane glides
Which way is the wind blowing at altitude? How can you tell? Climb up; pick your next cloud and go. How much altitude did you lose? How far did you get relative to the ground? How long did it take to find the thermal? Did you find lift on the way? Did you follow any lift on the way? Why or why not? Did you stop and turn? How much time did it take? How much altitude did you gain or lose? Was it worth it? Why or why not?

Climb to a height that keeps you within easy gliding distance of the field then use your map and final glide calculator to set up a 15:1 glide back to the high key area of the circuit. Try it a few times from upwind and downwind. Now, when you are really comfortable with this, set up a 20:1 glide to the high key area that allows you an "opposite" circuit option. Do this a few times. Would you ever, ever consider attempting a maximum performance final glide? How would you "de-risk" this situation?

Push the envelope
At altitude in your club trainer and prepared for the likelihood of spinning, see how tightly you can thermal — don't be afraid to bank it. Is there such a thing as too much bank? See how slowly you can thermal. See how gently you can thermal. Try different speeds. See how quickly you can react to an incipient stall, and what is exactly the right amount of control movement required to recover. If you have a Blanik, try all of this with and without flaps. What happens with flap when you stall/spin? What happens when you fly with top

rudder? Why is it so hard to fly a constant airspeed?

Learn when to call it a day Go up late in the day when the lift isn't so good anymore. Remember that you want to start a standard circuit at the standard height. Now, scratch and keep at it until you must leave to make it to your standard circuit entry point. What will you do if you try too hard? What will you do next time to avoid having to use your backup option? What does this imply about off-field landings?

Learn to see where the airplane is going
Dick Mamini taught me this one. Look out the front of the airplane. If nothing changes, where will you hit the ground? During a glide there is a point on the ground ahead of you that is coming straight toward you, neither rising nor falling in the canopy. Our vision can be trained to see this. See how the view changes when you go upwind and downwind. See how it changes when you are in sink. Yes, your calculator will tell you when you can reach a goal that is out of sight, but when your eyes tell you loud and clear where you will hit the ground, pay attention.

Learn from the sky I remember talking to a senior pilot and getting the strangest feeling. I eventually realized that he was never looking at me but past me, at the sky. When the flightline table talk turns to matters unrelated to gliding, spend more time watching the sky. The more you do that, the more you will learn. Think about each day — what kind of clouds do you see? How quickly do they change? Do you see wisps? Can you see movement? Hooks? When you fly, are the thermals straight, sloped or W-shaped? Which end of the cloud do you find them at? Look at the clouds down-sun, and then look at the clouds up-sun. Pick clouds and try to fly straight to the thermal. Were you right? On a quickly cycling day, try flying to puffs. Did you pick the right puff? What happened when you tried to fly to the "good cloud"? On a nice day, climb to cloudbase, descend to 2000 and then climb up again. Is there a "best lift" altitude or altitude band? Go up when the lift sucks, and I don't mean when the thermals are great. If you go cross-country, really sucky conditions can materialize in minutes, while it's hours to get back home. Go up when it sucks — I mean it — those cruel and heartless Contest Directors don't set tasks only on Diamond days.

Learn about the weather Start watching the weather on the Internet, on TV and in the newspaper every day, not just when you think you might go flying. Look at the analysis maps. Phone the automated flight services weather and get the winds and temperatures at the various altitudes. Make your own forecast, and then see how well you do. Estimate lift strength, then go flying. How well did you do? If a cold front is forecast, watch for it. If it will pass on a flying day, plan around it. Do you want to get up, down and put away before it reaches the field? How do you motivate people to put the gliders in the hangar when you see the gust front from altitude? Why would you do this? Would you try to "ride the front", and if you did, who would you go to for advice on how to do this? Do you just skip flying that day?

Learn to manage your body
Book a three-hour flight in the club solo ship and run through the other airwork ideas while feeding and watering yourself. Where do you want your blood sugar and electrolytes to be for landing? For men only: learn to take a pee in the cockpit. The first time to try this is not while you are struggling to climb out of a low spot a hundred kilometres from home. Didn't unzip before getting in the airplane? Hmmm, too bad for you, at least you have the option of landing ...

Learn to use a map Yes, you know where all the local landmarks are. So what? Take your map and mark concentric circles around your airfield. You can use 5 nm (corresponding to a 30:1 glide), or some other spacing as suits your fancy. Laminate it, mark a course between those landmarks on it, and then actually use the damn thing. Put it in the side pocket, pull it out, refer to it, and put it back. Pull it out, refold it, and put it back. Can you hold it so that the course line is in front of you? Can you figure out which orientation works best while you are parked in a thermal? Are all of the farmhouses marked on the map? All of the roads? What happened to your lookout while you were doing this? Your speed control? How much altitude did you lose?

Listen to other pilots Listen to all of them, the great and the not so great, the outspoken and the reserved, the friendly, the taciturn and the downright grumpy. Listen to towpilots! You'll learn more if you listen rather than talk. Who would you go to for advice? Why? Is there anyone you would avoid? Why?

Learn to look at fields Pick a "nice" field from the air. Pick an appropriate approach. Back on the ground, drive to the field and walk it. How big is it? Did you suspect that it might have a slope? Why? How flat is it now that you are here? Look for obstacles. Look for rocks and gopher holes. Were those green patches you saw from the air wet spots, or places too steep to pull a harrow? Has a tractor recently been there? What *is* the greenery that you saw? Would you have survived your first off-field landing here? What makes you think so?

Go on a retrieve Did all of the required equipment get loaded? How did the trailer handle? What kind of field did the pilot land in? Was there damage? What decisions led the pilot to land in that field? How long did the retrieve take? What part do you think luck played in the story? What part did the *pilot* think luck played in the story? How long did the whole operation take?

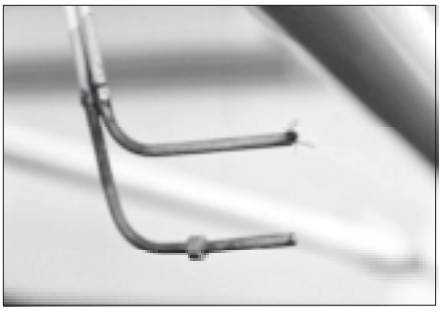
Get your Bronze badge The Bronze badge helps you put together many of these skills, and is one of the required qualifications for taking our club aircraft cross-country.

Team fly a contest People learn a great deal about cross-country in contests because they have a built-in reference in the form of other competitors, and you go cross-country on decidedly less-than-perfect days. Get together with a group of friends and talk a cross-country instructor into flying a two-seater with you in a local contest. Go through all of the cross-country preparation: registration, weather forecast, task planning, recording equipment, trailer prep, food, water retrieve crew — the whole 8.23 metres. Your instructor shouldn't have to do anything but keep you out of major trouble and help you overcome minor trouble. At the end of the day, compare your experiences with the other competitors.

Study and plan tasks Plan a number of Silver distance flights. Are there nice places to land along your route? Are there any places at all? Set up the evidence recording gear you will need and use it. Fly locally, but talk to the pilots who went cross-country. What was their skill level? What did they have to say about the day?

Have fun and do it safely This is *not* a job. We are here to fly sailplanes and have fun, for a long time we hope. Society conditions us to value achievement above all else, but soaring achievements like cross-country, badges, and contest placings are only a *direction*, not ends in themselves.

The essence of soaring is the practice of flight. Practise so we can enjoy the experience of flight in this beautiful country, for the satisfaction of exercising and developing skills and in a club environment, for the joy of sharing flight with our friends for many safe and happy years. Practise, and the achievements will follow. You might find that when they do come, they seem a bit unimportant, simply because flying, like playing music, is its own reward. ❖



If it can happen, eventually it will

On descent, the Cu Nim towpilot radioed that the ASI had stopped indicating. The cause was a bumblebee which had impacted the pitot dead centre, completely plugging it.

Forest fire shuts down the Cowley Summer Camp

Last year it was snow, this year an inferno! The weather was hot and windy. The Lost Creek fire, about 20 miles away, had started 23 July in the Lynx Creek campground. Three days later, when our camp opened, the uncontrolled fire had burned its way north to the edge of the Crowsnest Pass, and the flames, which then threatened homes in Blairmore, were clearly visible from Cowley at night.

The camp was immediately affected as a 20 mile exclusion zone was defined around the fire to allow for a large water bomber operation. We kept our flights north of the Oldman reservoir to avoid the amphibious CL-215 water bombers — it took a meeting with the fire boss to sort things out. There were about ten water bombers going full-out.

By Wednesday, the worst smoke conditions of the camp thus far brought visibility to IFR levels and launches stopped after two flights. Enough was enough, and Cowley shut down and moved to Cu Nim for the last few days.

John Broomhall

John Broomhall

The view southwest from the Cowley airfield.

Clio's Quiz

Clio, the ancient Greek muse of history, has had a great interest in the history of gliding and soaring ever since Icarus and Dædalus first spread their wings. In an effort to foster an appreciation of that history, she has inspired the following quiz:

A Little of This, a Little of That

1 Who was the first Diamond glider pilot in the world?

a. Coren D. Termal
b. Richard Johnson
c. Ralph S. Barnaby
d. Hawley Bowlus

2 The "Moazagotl" is what German glider pilots call their standing wave and it was named after a farmer.

TRUE or FALSE

3 Who self-launched his glider off a cliff using a greased slide?

a. Orville Wright
b. Cloyd Artman
c. Peter Riedel
d. Espin Hardwicke

4 No commercial glider has been built in Canada.

TRUE or FALSE

5 The PW-5 was designed with the "one class" idea in mind, that is, that all competitors in a contest would fly basically the same glider. What was the first sailplane designed with the "one class" idea in mind?

a. Grunau Baby
b. DFS Meise
c. Franklin PS-2
d. Schweizer 1-26

6 Elliots of Newbury (EoN), the English manufacturer famous for building the Olympia series of gliders after World War II, had been a home construction company before the war. TRUE or FALSE

7 What famous German ex-patriot glider pilot was a secret General in the OSS (Office of Strategic Services, the forerunner of the CIA) during World War II and may have actually performed secret missions for the Allies within Germany during the war?

a. Wally Setz
b. Dr. Wolfgang Klemperer
c. Martin Schempp
d. Robert Kronfeld

8 Erno Rubik, inventor of the "Rubik's Cube" also designed gliders.

TRUE or FALSE

9 Who founded the first organization dedicated to the preserving and flying of vintage gliders and sailplanes?

a. Chris Wills – Vintage Glider Club (UK)
b. Jan Scott – Vintage Sailplane Assn. (USA)
c. Willi Schwartzenbach – Oldtimer Segelflug Vereinigung (Switzerland)
d. Klaus Heyn – Oldtimer Segelflug Club (West Germany)
e. Martin Simons – Vintage Glider Assn. (Australia)

10 The Aeronca C-2 "Flying Bathtub" was a modified glider.

TRUE or FALSE

11 The 1920 Rhön Competition is considered the beginning of organized soaring activities. At this meet and subsequent Rhön Competitions, many of the attendees would become some of the most influential men in the world of aviation. Who does not belong on this list of Rhön Competition attendees?

a. Wolfgang Klemperer
b. Willy Messerschmitt
c. Willy Pelzner
d. Peter Riedel
e. Friedrich Wenk

12 The Ksoll Breslau was a two-place biplane glider with what unusual attribute?

a. It was fully cantilevered.
b. The top wing was camber changing.
c. The bottom wing's angle of incidence could be changed.
d. It used wing warping.
e. It was a canard.

13 Despite the Horten brothers' numerous designs, there were never any Horten flying wings entered in the World Championships.

TRUE or FALSE

14 While in San Diego, Hawley Bowlus built all of his gliders with paper wings.

TRUE or FALSE

15 Who was the first to fly 1000 km in a glider?

a. Oleg Antonov flying the *Antonov A-15*
b. Richard Johnson flying the *RJ-5*
c. Al Parker flying a Niemi *Sisu*
d. Philip Wills flying a Slingsby *Sky*

16 When did the earliest recorded glider activities take place in Russia?

a. 1904
b. 1914
c. 1917
d. 1922

answers on page 22

"Sailplanes 1945-1965"

This is the latest in Martin Simons' excellent books on sailplanes. First, in 1986, came *The World's Vintage Sailplanes*, published by Kookaburra Technical Publications Ltd. in Australia. This was followed in 1996 by *Slingsby Sailplanes*, published in England by Airlife Publishing Ltd, and then came *Sailplanes by Schweizer*, 1998, also published by Airlife. In 2001, *Sailplanes 1920-1945* appeared, published in Germany by EQIP Werbung und Verlag GmbH. Now we have, 2002, *Sailplanes 1945-1965*, also by EQIP, which is the subject of this review.

The first thing that one notices is the high standard of the 1:50 scale drawings of the gliders that are included in the book. Knowing that Martin is a keen aeromodeller, one appreciates that these drawings have been prepared with consideration for the model makers. (He is the author of *Model Aircraft Aerodynamics* which I understand is the only English language book on the subject.) The drawings are truly superb, as they were in the previous books. They are presented in colour with different colours representing the different materials of construction, fabric covering, metal, plywood skin, transparent plastic, and moulded fibreglass skin. There are also many excellent photographs, many of which I have never seen before.

The book traces the post-war development of the modern sailplane in three parts.

Part 1 "The old tradition" covers the immediate post-war years. Here are presented the gliders which followed the old traditional methods of manufacture; primarily plywood skinned monocoque fuselage and wings using a hefty wooden spar, many ribs, plywood covering forward of the spar, and fabric covering aft of the spar. All-metal gliders and those with steel tube fuselage frames are also included. This part of the book is presented by country of origin, nineteen nations being included, for a total of 67 different types, including one from Canada.

Part 2 This part, "New wings", is to me the most interesting part of the book. The introduction presents a brief description of the advantages of the new laminar flow aerofoil sections and the importance of manufacturing the wing to maintain the section profile and have a smooth surface. Fifty-one gliders are described, basically in the chronological order of their appearance. Some used further developments of the classic construction methods while others used very special methods of construction in order to achieve the accurate profiles necessary to obtain the improved performance that could be achieved if true laminar flow was maintained.

Part 3 "Glass ships" includes descriptions of nine of the first generation of fibreglass gliders. Again, they are presented in chronological order of appearance.

Any gliding enthusiast who is interested in the history of gliders and the details of design and construction will find this book a very valuable addition to his library. Some may be disappointed that some particular glider is not included but we must understand that the author had to make a difficult choice on what to include and what to omit. Personally I believe that he made good choices.

I have two criticisms. I would like to have seen some performance data included; however, it is probable that Martin decided to omit this as it is so difficult to obtain accurate figures and it's better to omit it completely rather than have to explain the source in each case. My second criticism is directed not at the book but at the price to this Canadian purchaser! Starting at $US45.20, it grew to $119.28 Canadian with shipping, exchange and Customs. Was it worth it? Yes.

We can look forward to *Sailplanes 1965-1985* and hope that I will still be around to read it!

reviewed by **Terry Beasley**

Motorgliders ...

from page 17

on a runway in the USA in an airliner's tip vortices.

Although this scribe was hot to trot to buy a motorglider years ago, with the help of my wife I resisted the urge until there was virtually no emotion in the purchase. This reasoned approach stood me in good stead as I have never regretted adding this bird to the family. Besides, Linda says I am happier and easier to live with when I'm soaring regularly — it's all relative.

While I have crossed the continent a number of times in Xtreme motorgliders on various missions, for my taste, soaring is the epitomy of flying. Oh, sure, there are times and occasions for zorching around the country on business and pleasure when a speedster makes more sense during time sensitive operations. But for most of us on pleasure trips to local destinations or on the $100 burger mission ($30 in a motorglider), the need to rush disappears. Besides, the ability to soar really tilts the scales towards the self-launching glider. Moreover, the hourly cost of flying is greatly reduced when one gets away from large engines and high cruise speeds. After all, we are flying for fun aren't we? So, what's the rush.

Differing views are welcome. Anyone wanting to discuss soaring or motorgliders can reach me in Victoria at (250) 652-3528 or at <*aviator @horizon.bc.ca*> Happy landings. ❖

a spastic quad ... ?

from page 13

A note from Marlowe's mother:

Marlowe enjoys writing very much and tackled this assignment to produce something for *free flight* with enthusiasm. It was good to have the time as she works with the left index finger making her text entries.

We are testing out new software this summer to try to help her increase her writing speed which is presently at three words a minute as she corrects mistakes made by other knuckles brushing the keys as well as repeats if she holds down too long on a key. Also, she is a very busy young lady continuing with her therapies each afternoon and taking long weekends at the cottage where we do not have a computer.

She was away on a communications course for her Dynavox the last two weeks in July. We are looking forward to a taste of the Americans with Disabilities Act which has a lot of oomph to it compared to the Ontarians with Disabilities Act counterpart here. We will return ready to conquer the world, I am sure. This will help Marlowe as she is just beginning a term of office on the Accessibility Advisory Committee for Caledon-Peel. ❖

Clio's Quiz Answers:

1 e. Coren D. Termal would have you believe it was him, the first Diamond pilot was actually John Robinson, flying the Ross-Stephens RS-1 *Zanonia*, in July 1950.

2 TRUE. The *Moazagotl* was named for a Silesian farmer named Motz Gottlieb, above whose farm the phenomena was first noticed.

3 b. The Pacific Northwest's Cloyd Artman taught himself to fly in 1933 by launching himself and his primary glider off the cliffs lining the Okanagan River near Oroville, Washington, using a greased board.

4 FALSE. Boeing of Canada built primaries, and the Canadian Wooden Aircraft Co. and deHavilland Aircraft both built the designs of Polish WW II refugee Waclaw Czerwinski.

5 b. Although basically a smaller version of the earlier 18 metre *Weihe*, at the Olympic design competition held in 1939, the *Meise* (Titmouse) was adopted as the first "one class" sailplane for the cancelled 1940 Olympics. It subsequently has come to be known as the *Olympia* (or even *Olympia-Meise*).

6 FALSE. Elliots was a British furniture manufacturer that was converted to the war effort during World War II and was prohibited by the government from returning to building furniture after the war. They therefore completed the illegal Chilton *Olympia* (it was illegal to build a civilian glider during the war) and began building gliders commercially.

7 b. Although Wally Setz also made secret missions to Germany, and Robert Kronfeld flew not so secret missions over Germany, they did not hold the rank of General. It was only revealed after he died that Dr. Wolfgang Klemperer (employed by Douglas Aircraft, in Santa Monica, California) had actually held the secret rank of General in the OSS. After this was revealed, his friends began to wonder about his frequent absences, and rumors were circulated that "Klemp," as he was known to his friends, had actually secretly gone undercover to Germany several times.

8 FALSE. It was his father, also named Erno, who designed gliders in their home country of Hungary.

9 a. Englishman Chris Wills, son of famous glider pilot Philip Wills, founded the Vintage Glider Club in 1974. Beginning as an English glider club, it has since accumulated a world-wide membership.

10 TRUE. The *GL-2* Air Corps Glider, designed by Jean Roché in 1922 and built by the US Army Air Corps at McCook Airfield. In 1929, Roché modified it by adding an engine and it became the Aeronca C-2.

11 b. All but Messerschmitt attended the 1920 meet. While Willy Messerschmitt and Friedrich Harth were experimenting with gliders in 1920 and Messerschmitt did eventually attend the 1922 Rhön Competition, he did not attend the first one in 1920. Rather, they preferred to carry on in secret, flying at a hill near enough to the Wasserkuppe that they could have witnessed the activities there.

12 c. Joseph Ksoll was a creamery owner who owned several wing patents. On his 1924 Breslau, the pilot could change the angle of incidence of the lower wing.

13 FALSE. There were two of the Argentine-built I.Ae. 34 (Hoxva) entered in the 1952 Worlds in Spain. Unfortunately, one was damaged during practice and the other crashed on the fourth contest day.

14 FALSE. Bowlus built no gliders with paper wings. In 1929, his 16th glider (built in San Diego) was built using varnished kraft paper for the wing ribs' shear webs. This was known as the "Paper Wing," and was his only glider so built.

15 c. On 31 July 1964, Al Parker flew his *Sisu* (Finnish for "perseverance") from Odessa, TX to Kimball, NE, a distance of 1041 km. It was later donated to the Smithsonian Institution and currently hangs in the Air & Space Museum's Paul E. Garber Facility ("Silver Hill").

16 a. The earliest records tell of the 1904 activities at the Georgij Adler Royal School in Kiev, of Konstantin Arzeulov in the Crimea, and of Alexej Schukov in Tiflis.

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Clio's conduit for this quiz is Raul Blacksten, the Archivist for the Vintage Sailplane Association (VSA) as well as the editor of the VSA's quarterly newsletter/magazine *Bungee Cord*. Raul encourages every glider pilot to do their oral history or memoire. He can be contacted at either Box 307, Maywood, CA 90270, or at <*raulb@earthlink.net*>. Visit the VSA web site at <*www.vintagesailplane.org*>.

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The following badge legs were recorded in the Canadian Soaring Register during the period 6 Jul to 6 Sept 2003.

SILVER BADGE

968	Jaime Pinto	SOSA
969	Ray Perino	Rockies
970	David Pearson	Vancouver
971	Richard Snow	Vancouver
972	Andrzej Konarzewski	Winnipeg
973	Nicholas Kirschner	Vancouver
974	Wayne Store	Great Lakes

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

Mark Westphal	Regina	303.1 km	DG-400	Strawberry Lks, SK

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

Mark Westphal	Regina	303.1 km	DG-400	Strawberry Lks, SK

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

Mark Westphal	Regina	4790 m	DG-400	Cowley, AB

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

Mark Westphal	Regina	116.8 km	DG-400	Strawberry Lks, SK
Jaime Pinto	SOSA	60.8 km	PW-5	Rockton, ON
Ray Perino	Rockies	55.2 km	PW-5	Invermere, BC
David Pearson	Vancouver	57.2 km	DG-300	Valemou`nt, BC
Richard Snow	Vancouver	55.2 km	PW-5	Invermere, BC
Andrzej Konarzewski	Winnipeg	55.2 km	PW-5	Invermere, BC
Nicholas Kirschner	Vancouver	52.3 km	Grob 102	Hope, BC
Wayne Store	Great Lakes	52.8 km	Ka6CR	Colgon, ON

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

Mark Westphal	Regina	4790 m	DG-400	Cowley, AB
Jaime Pinto	SOSA	1341 m	PW-5	Rockton, ON
Ray Perino	Rockies	1240 m	PW-5	Invermere, BC
Andrzej Konarzewski	Winnipeg	1650 m	PW-5	Invermere, BC
Wayne Store	Great Lakes	1400 m	Ka6CR	Colgon, ON
Fionna Bayley	Vancouver	1510 m	L-33 Solo	Hope, BC

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

Jaime Pinto	SOSA	5:57 h	PW-5	Rockton, ON
Ray Perino	Rockies	6:03 h	PW-5	Invermere, BC
Angelo Savoia	SOSA	5:40 h	PW-5	Rockton, ON
Daniel Leduc	MSC	5:21 h	PW-5	Hawkesbury, ON
Wayne Store	Great Lakes	5:06 h	Ka6CR	Colgon, ON

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

2767	Mark Westphal	Regina	3:45 h	DG-400	Cowley, AB
2768	Mark Latham	York	1:16 h	2-33	Arthur E, ON
2769	Jaime Pinto	SOSA	1:45 h	PW-5	Rockton, ON
2770	Kieran Van Wagoner	York	2:12 h	2-33	Arthur E, ON
2771	Brandon Macdonald	York	1:00 h	2-33	Arthur E, ON
2772	Angelo Savoia	SOSA	5:40 h	PW-5	Rockton, ON
2773	Elija Porty	York	1:17 h	2-33	Arthur E, ON
2774	Rajat Rajput	York	1:28 h	2-33	Arthur E, ON
2775	Kevin Benninger	York	1:10 h	2-33	Arthur E, ON
2776	Scott Charles	Vancouver	1:07 h	L23 Blanik	Hope, BC
2777	Michael Lam	Vancouver	1:10 h	L13 Blanik	Hope, BC

NOTE: If you don't get your badge claims for this year in before *15 November* they will not be processed until April 2004.

It has been three years since the OO list was last renewed in 2001. It is time now for all club Senior Official Observers or CFIs to submit a list of the active OOs in their clubs. This renewal list is *mandatory* for OOs to retain their privileges for 2004. E-mail your list to me (above).

Congratulations to two SAC Junior members, both from the Vancouver club, who are now Silver badge holders:

Richard Snow – issued 23 August. He was born 30 Aug 85.
Nick Kirschner – issued 27 August. He was born 28 Oct 85.

I received the following note from Dean Toplis, SOO at Great Lakes:

"Here's the first of our badge applications this year (still hoping to make another attempt on the Roden despite the weather). Wayne Store — who took 20-odd years to solo, and was insistent that he'd never go beyond gliding distance of the field — stretched his wings this year and completed all three Silver badge legs in two flights over two days in his Ka6CR."

SAC SUPPLIES FOR CERTIFICATES AND BADGES

Order through FAI badges chairman – address on FAI badges page
Items 4 and 5 not stocked – external purchase approval is given

1	FAI 'C' badge, silver plate pin	$ 5.00
2	FAI SILVER badge, pin	$45.00
3	FAI GOLD badge, gold plate pin	$50.00
4	FAI GOLD badge, 10k or 14k pin	
5	FAI DIAMOND badge, 10k or 14k pin and diamonds	
6	FAI Gliding Certificate ***10 for $39.00 to clubs***	$10.00
	Processing fee for each FAI application form submitted	**$15.00**

Order through 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
36	FAI 'C' badge, cloth, 3" dia.	$ 6.00
37	FAI SILVER badge, cloth 3" dia.	$12.00
38	FAI GOLD badge, cloth 3" dia.	$12.00

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

ARTICLES ACVV POUR CERTIFICATS ET INSIGNES

Disponibles au président des prix de la FAI
Les articles 4 et 5 ne sont pas en stock – permis d'achat externe

1	Insigne FAI 'C', plaqué argent	
2	Insigne FAI d'ARGENT	
3	Insigne FAI d'OR, plaqué d'or	
4	Insigne FAI d'OR, 10c ou 14c	
5	Insigne FAI DIAMANT, 10k ou 14k et diamants	
6	Certificat FAI de vol à voile (receuil des insignes)	
	Frais de services pour chaque formulaire de demande soumis	

Disponibles au bureau de l'ACVV

33	Insigne FAI 'A', plaqué d'argent *(disponible au club)*	
34	Insigne FAI 'B', plaqué d'argent *(disponible au club)*	
35	Insigne ACVV badge de BRONZE *(disponible au club)*	
36	Insigne FAI 'C', écusson en tissu, 3" dia.	
37	Insigne FAI ARGENT, écusson en tissu, 3" dia.	
38	Insigne FAI OR, écusson en tissu, 3" dia.	

Votre paiement dévrait 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

SAC Soaring Stuff / Articles de l'Air

Sept 2003

		Price Prix	Size Taille	Qty Qté	Amount Total	Tax	
1	SAC T– shirt • navy with SAC crest specify size – S, M, L, XL	15.00				✔	ACVV T–shirt • bleu marin avec un écusson l'ACVV précisez la taille – P, M, G, XG
2	SAC golf shirt • navy specify size – M, L, XL	25.00				✔	ACVV chemise de golf • bleue marine précisez la taille – M, G, XG
3	SAC sweat shirt • navy specify size – M, L, XL	25.00				✔	ACVV sweat shirt • bleu marin précisez la taille – M, G, XG
4	SAC hooded sweat shirt • navy specify size – M, L, XL	35.00				✔	ACVV sweat shirt à capuchon • bleu marin précisez la taille – M, G, XG
5	Tost type ring (5 for $99)	22.00				✔	Anneau de remorquage Tost type (5 pour $99)
7	SAC flag – dark blue with gold logo, 3' x 5'	85.00				✔	Drapeau de l'ACVV, blue foncé, logo dore (3' sur 3')
Books							**Livres**
9	*SOARING CROSS-COUNTRY* Helmut Reichmann	55.00					*SOARING CROSS–COUNTRY* Helmut Reichmann
10	*SOARING ACCIDENTS THAT ALMOST HAPPENED* • Steve Dupont	12.00					*SOARING ACCIDENTS THAT ALMOST HAPPENED* • Steve Dupont
11	*SOARING METEOROLOGY FOR FORECASTERS* • SSA	16.00					*SOARING METEOROLOGY FOR FORECASTERS* • SSA
12	*FROM THE GROUND UP* • Isabel Peppler expanded & revised	34.00					*FROM THE GROUND UP* • Isabel Peppler
40	*STALKING THE MOUNTAIN WAVE* • Ursula Wiese Ed.2, postage $5, order from *free flight* editor	15.00					*STALKING THE MOUNTAIN WAVE* • Ursula Wiese
SAC crests, pins, cards							**Écussons et epingles de l'ACVV**
13	Lapel pin • Glider (white)	10.00				✔	Épingle • Planeur blanc
14	"SAC" lapel pin • enamel	3.50				✔	Épingle "ACCV" • émail
15	"SAC" lapel pin • pewter	6.00				✔	Épingle "ACCV" • étain

❀ any change to last flyer

continued on other side — voir au verso

		Price Prix	Size Taille	Qty Qté	Amount Total	Tax	
Manuals and flying aids							**Manuels et accessoires de vol**
19	Glider pilot logbook (box of 22 for $199)	10.00					Carnet de vol pour pilote de planeur (boîte de 22 pour $199)
21	Glider pilot training record book (bilingual) (10 for $39)	4.50					Dossier d'entraînement: pilote de planeur (bilingue) (10 pour $39)
23	*SOAR AND LEARN TO FLY GLIDERS* revised edition 2003	20.00					
24		20.00					PLANEUR ET APPRENDRE À PILOTER DES PLANEURS rev. 2003
25	Instructor's Handbook and Pocket Book NEW – (pair sold together)	12.00					Instructions en vol – manuel et carnet (paire) (Nouveaux – pour instructeurs – anglais)
26	Instructor's Course Manual – revised 2003	25.00					
27	CISTRSC-CO (blue) & SWAFT (orange) cockpit checklist decals (12 for $12)	1.50	set			✔	CISTRSC-CO (bleu) et SWAFT (orange) liste de vérification (12 pour $12)
29	*AWARE* • Gagnon et al – weather manual	10.00					*MÉTAVI* • Gagnon et al (manuel de la météo) (français)
30	Glider DI booklets (10 for $25)	3.00				✔	Glider DI booklets (10 pour $25)
FAI supplies • certificates, badges							**Articles FAI • certificats / insignes**
32	FAI Certificate – "passport" for recording SAC and FAI badges – package of 10 for clubs	39.00				✔	Insigne FAI 'A', plaqué argent
33	FAI 'A' badge, silver plate pin	3.00				✔	Insigne FAI 'A', plaqué argent
34	FAI 'B' badge, silver plate pin	3.00				✔	Insigne FAI 'B', plaqué argent
35	SAC Bronze badge, pin (available from your club)	3.00				✔	Insigne ACVV bronze (disponible au club)
36	FAI Silver badge, cloth, 3" dia.	12.00				✔	Insigne FAI argent, écusson de tissu, 3" dia.
37	FAI Gold badge, cloth, 3" dia.	12.00				✔	Insigne FAI or, écusson de tissu, 3" dia.

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Trading Post

Personal ads are a free service to SAC members (give me name of your club). $10 per insertion for nonmembers. **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

Tern, CF-BWA, 195h, basic instruments, enclosed metal trailer, chute, all drawings & manuals, one man rigging dolly. $5500 obo. Walter Mueller (780) 539-6991 <*walterm@telusplanet.net*>.

Duster, #45, 110h, encl trailer, chute, radio, 2 varios. Easy to rig, nice to fly. In good condition. Asking $5000. <*jdsapala@shaw.ca*>, (250) 881-0044 cell, (250) 743-7998 (H).

1-26A, C-FKPP, #59, 1600h. Recent overhaul incl. teardown of fuselage and new tubing as req'd, epoxy primed/painted, new fabric on fuse and flight controls. New cables, hardware, etc. Open trailer, chute. Delivery part way possible. US$7000 obo. Jim Cress (204) 832-3761 <*jcress@ mts.net*> or Matt Chislett (204) 254-3767 <*mbc@autobahn.mb.ca*>. See ship at <*www.autobahn.mb.ca/~mbc/C-FKPP.htm*>.

Std Jantar, SZD-41a, C-FLZS, 1205h, all ADs done, basic instruments, final glide computer (LX4000), Winter ASI, metal trailer, ATR 720 radio. US$20,500 obo. Fred Hunkler eves/weekends (519) 220-0079, <*fred@hunkeler-online.com*>.

1-36, 900h. Transceiver and electric vario, no trailer, will paint glider to your specifications. Chris Eaves, <*mail@xu-aviation.com*>, (519) 452-7999.

Astir CS77, C-GGHT, approx 1400h. Great club ship, no damage hist, Cambridge Elec vario, 760 chan radio, trailer. Asking $25,000. At SOSA. Dave Springford, <*dave.springford@attcanada.ca*>.

Std Cirrus, C-GJRW, self-rigging, covers, tinted canopy, Eberle trailer. Send for equip list. Asking $US19,000. Hans Berg <*hberg@mnsi.net*> or (519) 734-8922.

ASK-14 motorglider, 980h, engine 147h. Good cond, metal trailer, radio and O2. Launch for pennies. $12,500 obo. Willi Turpin, (250) 365-8378.

Std Libelle, CF-QJS, 877h. Basic instruments plus radio, audio vario, computer, encl. trailer, wing and canopy covers, tail dolly. All ADs done. Fresh annual. Asking $19,000. Doug Munro, 416-232-6515 days, (416) 466-1046 eves, <*munro@interlog.com*>.

Std Libelle 201B, C-GYRE, #438, 2321h. Instruments, radio, chute, el. and mech. barographs, O2, water ballast, ground handling equip, enclosed trailer. Excellent cond, easy to rig alone, $23,000. Peterborough, ON (705) 749-2533.

LS-4, 1983, 1376h, full instruments with Filser LX-4000, Sage vario, Edo-Air 720 radio, Cobra clamshell trailer, tail dolly, US$25,900 (negotiable). Contact Carsten (905) 465-0750, <*susanaycarsten@aol.com*> or Paul (905) 765-9809, <*pault2thompson@aol.com*>.

DG-202/17, C-GVRR, 1971, 700h, 15m with 1m tip extensions. Current CofA, always kept in a Minden metal trailer. Cambridge glide computer, Dittel radio, O2, Strong chute. Excel. flying qualities, with 17m extensions perf. comparable to ASW-20. (780) 434-8859 or <*dmarsden@shaw.ca*>.

Super HP-18, as tested by Dick Johnson (SOARING magazine, July 2003). Willing to sell without instruments and radio. Make offer above $27,000. Complete package details: <*soaridaho.com/Schreder/Trading_Post/SHP-18_Ad.htm*>. Udo Rumpf, e-mail <*urumpf@reach.net*>, (613) 475-4009.

Kestrel-19, CF-FKQ, 1004h, Varicalc/Winter varios, ATR760 radio, G-meter, ICOM A21 handheld radio, Chairchute, Winter baro, camera, customized factory trailer, wing dolly & tow bar. 44:1. Always hangared. Docile. Tail chute for short field landing. Asking $39,900. Dave Belchamber, days (819) 773-6267, eves (613) 825-1970 <*dave.belchamber@bell.ca*>.

ASW-20, C-GYMZ, 1981, 2100h, Varicalc GPS/computer/recorder, 760 ch radio, ELT. Security 150 chute. Cobra trailer, 1989, tow out gear. $45,000. Nick Bonnière, <*bonnfutt@magma.ca*>.

PIK-20E, C-GVLA, 1100h (160h engine). Refinished '98, Cambridge C-NAV, Terra radio and Xponder, 1-man rigging, chute, $56,000. (403) 298-6305 (W), 246-4392 (H), <*Vaughan.Allan@huskyenergy.ca*>.

DG-600M, C-GIVO, 722h (23h engine), 15/17m tips, Cambridge SNAV with flight recorder, O2, stall warning, Dittel radio, Terra transponder with encoder, Cobra trailer, tow-out gear, 1-person rigging, solar charger, chute. Asking $75,000. Howard Loewen, (204) 955-3453, <*howard @micropilot.com*>.

misc

Chairchute 150. Manu. July 89. Last repack 92. Owned since new by Swan Valley Soaring. Matt Chislett, <*mbc@autobahn.mb.ca*>, (204) 254-3767.

two-place

2-22G, 1300 hours, excellent cond, basic inst. Very forgiving aircraft. Great starter, can be seen at Erin Soaring. Daws Campbell (705) 686-3672 or e-mail <*jacee957@amtelecom.net*>.

Lark IS28-B2, C-GVLI. #67, 1800h, basic instruments, Cambridge vario & repeater, Varicalc flight computer, Alpha 100 radio, g meters, professionally built open trailer. Twenty year inspection/overhaul June 1999 at 1585h. $32,000 (US$20,500), obo. Matt Chislett, <*mbc@ autobahn. mb.ca*> or <*http://www.autobahn. mb.ca/~mbc/Lark%20advert.htm*>. (204) 254-3767.

L-13 Blanik, C-GVXS, 3500h, no radio, basic instruments. Always hangared. $11,000 obo. Sale subject to club members' approval. Montreal Soaring Council, Roland Niklaus, p/f (514) 694-6785.

L-13 Blanik, 2900h, will have life extension work to 4750h in place. Basic instruments, panel mount radio, speaker, hand-mic, sacrifice at $15,000. Have to sell as new L-23 coming. Contact Rudy at 604-894-5707(eves), 1-800-831-2611 (day), or e-mail <*info@pembertonsoaring.com*>.

K-7 C-FKZS, 727h. Fully restored: fuselage 1996, wings 2001. Ceconite 102 with dope used. Basic instruments with TE and MacCready ring in front. Radair 10 radio. Open trailer in good running cond. Fuselage dolly and wing stands. $13,500. More info/pictures: contact Keith (306) 249-1859 or Don (306) 763-6174, <*k.andrews@sasktel.net*>.

magazines

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