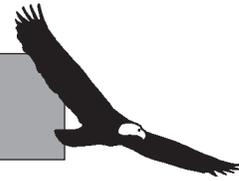


free flight • vol libre

4/03
Aug/Sep



Priorities



The main challenge facing soaring is sustaining membership. In Germany, three times more motorized DG-808Bs are produced than the standard 'S' version. This speaks of increased disposable income and a willingness — on the part of some — to spend it to buy freedom in the form of "independence" from the strictures and constraints of club life. Is this the sign of things to come in Canada? I hope not.

How then to maintain our numbers? Some "best practices" involve targeting specific audiences like MBA groups or aviation professionals. What to do with prospects once they are in the door? Bluenose runs dedicated flying weeks in May of every year where the year's crop of students, having been recruited in the fall, attends Ground School during the winter, advance through their training in a controlled fashion and are rewarded with an organized, progressive and intense flying experience.

SAC remains dedicated to the Air Cadet League of Canada in their gliding endeavours. This spring I completed the Air Cadet Gliding Program Soaring Pilot conversion course. I remain committed to assisting the Cadets at both the strategic level through the SAC Board and the Air Cadet committee as well as 'tactically' out on the fields of Atlantic Canada as a pilot giving demo rides in 2-33s.

By the time that we all get to read this, the soaring season ought to be firmly entrenched with your thoughts turning to the issue of whether or not it will be a soarable fall. Eastern clubs are preparing for their fall wave camps in Lake Placid, St-Raymond and even the newly discovered Waterville/North Mountain wave system in Nova Scotia. It would be great to see a Gold altitude claim from Bluenose! Best of luck and safe flying to all!



Saviez-vous qu'il se construit trois fois plus de DG-808B motorisés que la version 'S' standard? C'est un signe qu'au niveau mondial, le pouvoir d'achat des adeptes du vol à voile augmente et que certains n'hésitent pas à investir pour se libérer de certaines des contraintes d'une structure de club. Cette tendance risque t-elle se manifester avec force au Canada? J'espère que non. Le Canada a le privilège de garder un nombre à peu près stable de licenciés depuis plusieurs années. La structure de clubs y est certainement pour quelque chose.

Diverses innovations ont été mises en place dans chaque club pour maintenir cet objectif primordial de «recruter sans cesse pour créer la relève». Voici quelques-unes de ces idées gagnantes: promotion auprès d'une audience spécifique, comme les professionnels du milieu de l'aviation, ou les associations locales de MBA exécutif. Que faire avec les nouveaux membres pour les garder? Le club Bluenose organise des «Semaine de vol» de 9 jours intensifs en mai à l'intention des novices qui ont été recrutés à l'automne et qui ont suivi des cours théoriques en hiver. Leur progression est plus rapide, mieux organisée et augmente grandement le «taux de rétention» en cours de saison.

L'ACVV est toujours fermement disposée à soutenir les aspects vélivoles de la Ligue des cadets de l'air du Canada. Ce printemps j'ai suivi leur cours de conversion de pilote de planeur. Je compte assister les Cadets, aussi bien stratégiquement au conseil d'administration et au comité des Cadets de l'air de l'ACVV, que tactiquement sur les terrains des provinces maritimes du Canada comme pilote donnant des vols de familiarisation dans le 2-33. Au moment où vous lirez ces lignes, la saison sera bien enclenchée, tous seront anxieux de savoir si l'automne sera une bonne saison cette année. Les clubs de l'Est du Canada se prépareront pour leur camp d'automne à Lake Placid pour certains, à Baie St-Paul pour d'autres, ou même à Waterville, la nouvelle destination dans le système de North Mountain de Nouvelle Écosse. Ce serait extraordinaire si on pouvait annoncer un gain d'altitude Or à Bluenose. Bonne chance et bons vols, soyez vigilants!

Yves Bastien, SAC Vice-President

free flight

• vol libre

4/03 – Aug/Sept

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

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Cover

Twenty kilometres south and heading for Ridge Soaring gliderport, flying 60–70 knots. Sometimes up, sometimes down, but always about the same altitude as if I was taking the bus back home! This is an incredible feeling. I'm much closer to the ridge than the photo leads you to believe; this is due to the wide angle type lens on the camera. I'm 500-800 feet above the tree-tops. To the right is the Nittany valley, to the extreme right the Nittany mountains (ridge), to the left is the Allegeny plateau. Frequently the ridge has this camel-back type of profile.

photo: Réal Le Gouëff

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How about more stalling?

A note to instructors

Ian Oldaker

STALLS ARE A MAJOR CONTRIBUTOR to accidents in Canada, and this is often because pilots fail to recognize the symptoms and the situations that lead to stalling. Training in stall recognition and avoidance must therefore take on more priority at both the basic training stage and later when the pilot is advancing to steeper turns, and the spinning stages of training before first solo. It should be emphasized throughout all spin training that the glider will stall in *any* attitude and at *any* speed if the critical angle of attack is reached. A special consideration that is needed to handle the glider when close to the stall is to be aware of the rolling tendency. This will be quite noticeable, and the glider may want to roll off one way preferentially. At the same time the sink rate will increase noticeably and the glider will feel distinctly awkward to handle. Sailplanes with their long wings and excellent lateral damping tend to wallow around. However, it is possible to fly all modern gliders close to the stall using coordinated ailerons and rudder.

Although the rudder itself can be used to help keep the wings level when flying slowly, this technique is not recommended. The glider will respond and will roll quite slowly in response to rudder inputs ... the secondary effect of rudder produces a slow response. However if one wing stalls first, the response is very rapid! If the rudder is used next to try and level the wings, the danger is to apply too much rudder input for too long, causing a spin entry as the down-going wing starts to rise, but the other wing becomes more fully stalled because of the excessive yaw and slowing of that wing. A fast spin entry can occur which, if not stopped very quickly, could produce a full spin! On the other hand, a glider that is flown with coordinated stick and rudder and that drops a wing at the stall is much more likely to recover the wing drop very quickly if the wings are first unstalled. The pilot only needs to lower the nose promptly. By restoring lateral damping (see box), the glider will stop rolling almost immediately. The glider is then flown out of the slight dive using perfectly coordinated aileron and rudder.

Watch for the tendency of the student who is first practising stalls to try to lift the down-going wing with ailerons and to lift the nose before speed has been re-established. The instructor must promptly correct what could become a bad habit. Both these tendencies will aggravate a spin entry if the glider is not first unstalled. It is better to encourage the student to feel they have to allow the glider to begin truly flying again, before starting to pull the nose up to recover from the slight dive and to level the wings.

The stall and recovery

There are several important points to teaching the stall recovery. For example, if the demonstration is done incorrectly then the value of the exercise can be substantially reduced. Instructors should take into account the following considerations before teaching stalls:

• The instructor to guarantee a stall

You should be able to stall the glider in the way that you want; that is, nose pitch down or not (remember, we can get some two-seaters mushing along, nose up in a full stall).

• Demonstrate the inadvertent stall

Your stall demonstration should, as far as possible, represent the inadvertent stall. The stall should be approached slowly, with gradual stick movements. If you have to make it stall by a rapid control movement, this is because the original approach to the stall was too slow; play down this point.

If you hold the stick back after the stall, the glider will most likely regain flying speed, but will then stall again. ➔ p16

Lateral damping The resistance of the glider to rolling that is produced by the lift of each wing. When you try to roll into a turn, the wings resist your attempt! The angle of attack of the downgoing wing becomes larger and hence the lift is increased, and vice versa for the upgoing wing. This resists the rolling moment that you have applied with the deflected ailerons. If one wing stalls first as you slow the glider, the lift is substantially reduced on that wing and the glider will roll rapidly; it has lost lateral damping. Because the angle of attack is at or above the critical angle when it is first stalled, the angle becomes larger as the wing moves down, so it becomes more deeply stalled and the glider rolls. Immediately the wing is unstalled however, the lift and hence lateral damping are restored and the rolling stops immediately.



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.

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A visit with Mike and Cheryl

Having made it a project to visit other clubs in Ontario and check out their, uh, hospitality around dinner time, I once more found myself at Great Lakes Gliding, near Tottenham. As noted in a previous story, the club is located on the homestead of Mike and Cheryl Ronan, and is conveniently situated equidistant between a biker bar in Beeton and a cowboy bar in Loretto, where the motto is "*Home of the Pointless Fistfight*".

So, as we were standing inside the hangar, waiting and wishing for it to at least look like a soarable day, this being the only available shade (there being no giant cumulus clouds to block the stark rays of the sun), Mike and I engaged in small talk. Turns out that we're both doing well, keeping busy, looking forward to some cooler weather, hoping the ball players don't strike, etc. We were literally watching the grass grow. Cheryl has decided to put some seed down in front of the hangar, and it needs periodic watering. We came upon a spare pair of sandals, which Mike suggested might look pretty natty with one of my, as he so quaintly calls them, "outfits". I have previously dined there on "Hawaiian Night" wearing, well, a skirt. Look, it was authentic; check out those National Geographics. In between the Fijian girls working on their upper body tans, you see the fishermen in dugout canoes wearing sarongs. Now, after I tried the sandals on, and kept tripping over myself, I formed the opinion that they are *not* manly attire:

Me: Say, Mike, your cracks about my sarong notwithstanding, it's not my wrists that are limp, it's my ankles. I can walk better in high heels than I can in these things.

Mike: Quit yer bitchin'; our Lord and Saviour wore sandals.

Me: Richard Longhurst?

Mike: No, you idiot, JC, and He was perfectly happy with them. Could walk on anything. Even water. And, after He was done walkin' on it, He'd change it into wine.

Me: Yeah, be that as it may, I still think that if He'd had sensible footwear, He woulda stood a much better chance of getting away from the Romans ...

Cheryl's banned me for blasphemy now, and Mike got me a subscription to "GQ" magazine.

Cheryl wanted us out of the way, so I towed Mike up for a 300K attempt to the southwest. He called back on the radio and asked, "How many N's in Hanover? I thought he said, "How

many inns in Hanover", so I said "Three." I figured he was going to land out and wanted to plan ahead. Turns out, he did land there. Evidently he was trying to program his GPS and blames me now for wrong coordinates due to a spelling error.

You can now get a sophisticated navigation system for your GM car called *OnStar*, and one of its features will phone ahead and book a hotel room for you. I think if Mike got one of these, and slaved to his GPS (along with the spell-check option), he wouldn't have to wait around in dusty fields waiting for those late-night retrieves.

I have had some modest success, and a lot of fun, in a couple of past issues by taking a poem or song and substituting some gliding lyrics. I periodically hear a song and think it would be well-suited to being modified, but I get stuck after only a couple of lines. I feel frustrated by being unable to finish the task, the writer's equivalent of a landout. What I usually do in cases like this is to sit down and drink Scotch until my thoughts become clear and organized.

Matter of fact, this would probably be a very good time to reveal that Tony Burton, editor of this esteemed magazine, rewrote a good portion of my poem, *Casey at the Nats*, which appeared in 4/2000. When I look back at my original notes, I am still impressed with how he helped take the kernel of a clever idea, and added a whole lot of polish while simultaneously removing a lot of chaff.

Anyway, what I am looking for here is some help finishing off some song titles. What I propose is a contest to complete a verse or two of one of these songs. Winners in each SAC Zone, as decided by Mr. Burton and myself, will receive a free launch. Some of the songs are old enough that you may need to ask Charles Yeates or Walter Weir for help. Submit your opus to Tony at *free flight*.

1) *Hens and chicks and ducks better scurry,
When I have to land in a hurry,
When I have to land in a hurry,
'Cause the lift just stopped ...*

2) *Bye bye lift,
Bye bye altitude.
What's my longitude?
I think I'm a-gonna cry.*

*There goes my thermals,
The sky looks blue ...*

Oh yeah, this contest is not open to employees of *free flight* and their immediate families.

the Bald Eagle

Getting ready to fly the Ridge

Réal Le Gouëff, MSC

some ultra-preparation results in a new and useful website

FOR A FEW YEARS NOW, fellow pilots have told me about the Ridge and how addictive it was to fly there. As I was getting more flying experience, the idea slowly matured. Simultaneously, I was willing to expand my flying horizon. I had been contemplating for some time to fly in other places and try other ways of soaring. I had been flying thermals at my home club, but wave, ridge or mountain flying were progressively attracting me.

In the fall of 2001 I had decided to go to the Ridge in April 2002. I started gathering information and read articles about the place. I also looked at other clubs in the USA, western Canada and Europe. I then read Tom Knauff's book on the Ridge and started gathering maps of the



Réal and his Discus.

area. This well-written book made me realize that this was no Mickey Mouse stuff and that the Ridge demands respect, particularly from the newcomer. I therefore decided to wait and learn a lot more about it since I was obviously ignorant of everything pertaining to the Ridge.

One thing I wanted to avoid was getting there without the proper information and knowledge. Spring 2002 came and I decided to put all that Ridge stuff on the back burner because there was no way for me to gather enough information in so little time. For various reasons I also abandoned the idea of going to other places that I had been considering.

The 2002 season passed and late that fall I was contemplating three possibilities. One was to go to Lake Placid to learn about

wave flying, second was to go flying in France during the winter, and third was to go to the Ridge the coming spring of 2003. I went to Lake Placid and got an introduction to wave, and this stimulated me to learn more. Therefore, I was thinking of going either to France or the Ridge. Depending on my work schedule, among other things, and how I could synchronize things, I would decide which one to do.

As time passed it appeared that going to France was going to be possible. I finally went to Southern France and did some very interesting flying in the mountains, as my story in the last issue of *free flight* described. On my way back it appeared that I could possibly go to the Ridge also. As my departure for the United States was dependent on a few things and I could not be sure until days

before leaving for the USA that I would be able to go. But I was lucky and everything fell into place at the right time.

A few months before, despite the uncertainty, I started gathering all the documentation on the Ridge that I already had. I went on the web to get many more maps of the area. I recreated the Ridge from Williamsport to Altoona with aerial photos and topographic maps, and from Williamsport to Covington with DEM (digital elevation maps). These maps were giving me a very good idea of the topographic situation.

I started re-studying Knauff's book, as I had done the year before, but this time more seriously and in relation to the pictures and maps of the Ridge I had. This made it a lot easier to memorize than if I had no maps available. I taped all my small maps together to get the big picture of the place. I made myself a four foot long topographic map, a pair of five foot Digital Elevation Maps and a ten foot long aerial picture map. The maps were a collage of 5"x4" pieces that I taped together after downloading them from the web. It was tedious work. Many of these maps were downloaded from www.mapmart.com where one can buy many different types of maps. The aerial photos were most helpful in understanding the ridge characteristics and finding the location of airports. I found the DEM maps outstanding for visualizing the shape of the terrain and the gaps. The aerials were excellent for a look at the airports, fields, and landmarks.

I must have read Knauff's book at least ten times. In fact, I studied it to a point that I almost knew it inside and out. I made notes, drawings, and research on maps, and downloaded 125 to 150 different maps. I investigated the ridged area in order to be able to spot, from the aerial maps, all airports, major and minor gaps and landmarks of interest. I got different zoomed in or out aerial pictures of all airports to help me localize them in relation to the ridge and see their runway's orientations.

All together I believe that I had spend more than 200 hours studying and working on the information that I gathered. Just finding the appropriate sources of information was pretty time consuming. I wanted to minimize all the uncertainties pertaining to the ridge by learning everything I could beforehand — the rest would come with experience. I was also convinced that the more I knew, the faster I would learn.

When leaving for Ridge Soaring, I had pumped myself up so much that I was almost hoping to be quizzed on all the do's and don'ts from any instructor who would check me out. I wanted to be as ready and as safe as it was possible to be. I have to say that I had prepared myself as if I were taking a university exam. But, no → p13

One short ... mining Australian diamonds

Ian Sutcliffe, SOSA

ECLASSIC CU WERE ALL OVER THE SKY at Nympsfield, England in August 1984. I had smoked a barograph the evening before and was ready to attempt my Silver badge height gain. The flight was perfect, unfortunately, the barograph paper was damaged so I couldn't claim the flight. A few weeks later I attempted a Silver distance flight in a K8 but landed in a field just shy of the goal. Fourteen years, a wife, and three kids later, a five hour attempt ended a few minutes short. Another duration attempt over Rockton went well but the OO had gone home and another flight went unclaimed. The following year, I declared a 300 kilometre flight from SOSA on a perfect day. I landed 2:38 hours after starting for an average speed of 114 km/h but the Volkslogger had overflowed its memory and the flight recorder stopped recording four minutes short!

Twenty years of gliding — not one badge completed. It was time for a change and the chance came in Australia in January this year. An evening with OO Dave Springfield reviewing the Sporting Code and a few e-mails to Dan Bush to clear up some ambiguities determined what was possible. Another hour with *SeeYou* task planning software and I was ready to right the wrongs of the past.

There was only one day when the weather was right and an airplane was available so we decided to make the most of it. The plan was to fly a route that would earn as many badge claims as possible in just one flight. Careful scrutiny of the rules indicated that, with the right flight plan and conditions, all the components of the C, Silver, and Gold badges plus two of the three Diamonds were possible. That is: a 5 hour flight (C badge and Silver duration), with a 3000m height gain (Silver and Gold altitude), covering 500 km distance (Silver, Gold, and 2 Diamonds). The only badge leg that couldn't be accomplished over the Australia desert was the Diamond height.

The flight plan was: a 159 km leg northeast from Tocumwal (toward Sydney) to a turnpoint at Grong Grong, a 134 km return leg southwest back toward Tocumwal to Berrigan, a 91 km return northward to Morundah and a final 117 km run back south to Tocumwal for a 501 km total. The Duo Discus had German instrumentation, including an upside down altimeter calibrated in metres and a German language flight computer. My German is worse than my soaring so I had to rely on old fashioned maps and mental calculations that, surprisingly, worked pretty well.

Well, plans are made to be changed. Twenty-six minutes after an uneventful 2000 foot aerotow to the south, I found myself on downwind entering a left base leg. Just as I became resigned to landing, that familiar bump at my back indicated a thermal. A quick radio call and before I knew it I was climbing through 7600 feet with 5.4

knots indicated on the averager. The good news was that I had a clearly identified low point and, if nothing else, I now had my 1000 metre Silver height in the bag.

I also had a good introduction into Australian soaring. Although the day was booming it had taken me 26 minutes to find my first thermal! I had found nibbles of 4-6 knots up and big areas of 5+ knots down. Makes you think about the 500 kilometres ahead. I was about as high above the ground as I had ever been in a glider. There were huge paddocks to land in as far as the eye could see to the north, so I headed out on course. Thirty kilometres and 3600 feet lower, I hit a 3 knot thermal and climbed to 7000. Five kilometres later I hit a 10 knot boomer that topped out at 12,000 feet. Silver distance and Gold height gain legs were now also in the bag and I was feeling literally on top of the world. The desert was 600 msl so I had over 11,000 feet to play with. After eliminating the headwind component the Duo Discus had a gliding range of about 100 km. What could go wrong?

Turns out not much — I arrived just south of Grong Grong (repeating the name indicates a bigger town) at 7000 feet. I had bumped a few times and covered 119 km with only a handful of turns and 5000 feet of altitude. I had flown the previous day with Ingo Renner (see my story in the last issue) and tried to apply all of his advice. The hardest was to fly straight to the goal and not stray off course. Several glides were over 30 km between thermals, so I had to be patient. It was very tempting to head off course to beautiful clouds just a kilometre away. Ingo's other advice was to centre the thermal in just one turn or keep going. This "one chance" method was hard to implement, but I found this advice worked pretty well and I became better at it as the day went on.

A nice climb over Grong Grong took me back up over 11,000 feet and started the 134 kilometre run down to Berrigan. This leg went well but I was down to 5800 agl just north of Berrigan. Decision time. I could continue on to Tocumwal and be guaranteed two height claims, a Silver and Gold distance and Diamond goal or I could risk the distance claims and go north again to attempt the Diamond distance and the Silver duration. A boomer thermal to 12,000 feet a few minutes later made the decision look easy. A few climbs and I was at 12,000 over Berrigan turnpoint and swinging north for Morundah.

It is amazing how sink suddenly appears just as one leaves gliding distance from home. About 40 km north of Berrigan I was down to 5300 agl in 9.8 knots of sink and beginning to realize that I had not seen a house or any sign of life in the last 35 km. What was that briefing about Australia having the world's most deadly snakes and spiders? I had risked the Silver and Gold distance and the Diamond goal to go for a Diamond distance ⇒ p12

A gliding honeymoon in Israel

Mike Morgulis, Air Sailing

“So dear, what shall we do on our honeymoon?”

OBVIOUS ANSWERS LEAP TO MIND of course, but then again, not everyone likes gliding. I'm fortunate that my bride, Thuy, enjoys flying as much as I do, so when I suggested we find a gliding club during our honeymoon in Israel her reply was an instantaneous and enthusiastic “yes!”

Why Israel? Well, it's my roots and now it's Thuy's adopted roots too. Why during the Intifada? Well, why not? After all, despite everything going on, the Israelis still live there, get married, have babies, and go gliding too. So, with some research on the internet and some e-mail correspondence, we made plans to visit the Negev Gliding Club in early November, the only club of the four in Israel which would be operating when we wanted to fly.

Israel is no stranger to gliding. In 1927, Tzvi Nadav discovered that the British would allow Jews to organize themselves into gliding clubs, so later that year he traveled to Paris to study the sport. In March 1933 he helped found the Flying Camel Club, and in 1935 gliding was a featured sport in the Maccabiah games (Jewish Olympics) in Tel Aviv that brought in many international competitors, most of whom left their gliders behind to aid the development of a budding air force and the national airline. A pristine *Wrona* primary glider from the Hadera club is displayed at the Israel Air Force Museum at Hatzerim and serves as a reminder of the country's humble origins in aviation.

During the week the Israel Air Force owns the skies, but during the Sabbath they rest their students and the gliding clubs jump into action. So instead of going to synagogue on Saturday morning, Thuy and I drove quietly through Jerusalem (feeling somewhat guilty for ducking morning services) and then hurtled down routes #1 and #40 towards Be'er Sheva in our little white Suzuki rental car. After an hour and a half drive through gorgeous bougainvillea and citrus groves, we arrived at Sede Taiman, the civilian airfield just outside of Be'ér Sheva. The gliders were being rolled out and the operation was just getting underway.

The field itself began as an RAF base in WW2; the 2000 foot runway is surrounded with arched concrete shelters for the Spitfires and south of the runway are earth embankments for the bombers that once served here. The field served the IAF from 1948 to 1966 and was turned over to the public in 1967. The field gets its name from the Taimani (Yemenite) Jews who were airlifted into Israel in 1949 during “Operation Magic Carpet.” The gliding club began on the field in 1961 with a Slingsby T-31 trainer. The fleet had obviously improved since then. When we looked around we saw a Lark IS-28, two Grob 102's, a G103, K7, and we were told that there were an-

other two G103's and a Discus in trailers. The towplane is an ex-IAF Super Cub.

To go flying we would have to find the folks in charge, so we looked for the person wearing a tee-shirt and white hat... We introduced ourselves to Yehuda, a nice fellow who was at the flightline trailer, who then introduced us to Amnon Harari, the club's president. Amnon assigned two pilots to take us up, Menachem would fly with Thuy in the Lark 28 (affectionately known as “Romani” for its Romanian origin) and Raeli would fly with me in the Grob 103 (known as Gulu Zulu, having been purchased from a South African club and its registration 4X-GGZ). Raeli looked over my logs and FAI certificate and, with a grin, said that he'd rather look out the canopy if I wanted to do all the flying. Unless I was an Israeli citizen I couldn't fly solo, which I already knew, so having a back seat pilot was a must, but I was glad for the company too.

During our flight Raeli showed himself to be a great tour guide and historian. We lined up alongside runway 32, I introduced Raeli to CISTRSCO and he informed me of a big “O” at the end of the runway. It had been four years since I'd flown a Grob behind a Super Cub, but this was my first asphalt take-off. The temperature on the ground was a mere 34 degrees Celsius, the Cub staggered into the sky, somewhat reminiscent of my earlier days at Air Sailing on a late August afternoon. Then came the trees at the end of the runway that I had assumed were one of the forests that were being planted throughout the country. The big “O” at the end turned out to be a tree-lined army base with canvas tents covering up all but five feet of many 120mm gun barrels — it was a tank base. Rope break options? Well, straight ahead definitely was *not* one of them.

We released at 2000 and found a nice thermal shortly thereafter. Raeli was quick to point out the no-fly zone to the south aka Hatzerim Air Force base. A huge base, it is home to flight training as well as operational fighter squadrons, and home to the IAF museum we visited the next day. It had been a few years since I had last flown the Grob, having gotten used to the much nimbler and lighter Krosnos. Raeli commented that we all would enjoy the thermal if I slowed down from my “must be excited” 60 knots down to my old friend 50 knots. We shot up to 3400 in no time and headed off to see some sights.

Below, irrigated terraces were helping spread the greenery to the desert, a Wadi (seasonal dry river bed) was easily identifiable by the trees along its path. Of special note were the Turkish trenches cut into the desert floor from the WW1 battle between the Turks and the British. Coincidentally, my childhood public school was named after the British victor at the time, General Allenby. We



I should name the folks from right to left in true Israeli/Hebrew fashion: Amnon Harari, Raeli Saraf, me, Thuy, ?, and Menachem.

flew over Be'ér Sheva itself and enjoyed some more thermals that had sprung up in strength, but were capped a bit low due to an inversion that had blown in from the Mediterranean. Had it been clearer, we could have seen both the Mediterranean and Dead Sea.

Although a cross-country flight was possible that day, we had a one hour limit with the international beer penalty. Raeli suggested that we use some "creative" means to lose altitude as we ventured back to the airfield, so we cleared our airspace and did some wingovers. Mine was more of a stall turn while Raeli's were more of an Immel-mann-type affair. His talents as an air force pilot were clearly apparent, his control inputs were smooth, and there was little difference in the G's on the way up or on the way down. I demonstrated Steve Newfield's "rolling on the point" exercise that Raeli seemed to enjoy perfecting. And finally, we flew alongside the club's K7 before joining the circuit. Raeli handled the radio as my rusty Hebrew vocabulary never included circuit patter.

I did my SWAFTS check and demonstrated the modified "European circuit". I immediately thanked myself for that as the undershoot was none-to-inviting, consisting mostly of scrub, undulating hills, a ravine, and what I can only vaguely describe as a bomb crater. I wanted to represent Canada strongly and I could feel the many judging eyes that parallel any gliding club's runway. The hold-off was one of my best and the rollout was so smooth I didn't hear the chirp from the wheel that I expected to accompany my first landing on asphalt. Raeli gave me kudos for my landing, and Thuy reported that others on the ground thought it was *metzuyan* (excellent). Euphoria set in for me afterwards and Raeli and I replayed the hour-long flight during the walk back with the plane.

Thuy flew with Menachem in the Lark, enjoying forty-five minutes of flight. I'm fortunate that Thuy loves gliding, and enjoys taking the controls whenever the opportunity arises. She reported that the Lark was heavier on the stick than the Krosno, but otherwise easy to handle. Menachem treated her to the thermals that Raeli and I

had just enjoyed, and they were joined in the thermal by a few other gliders and a large bird of prey at the top. Menachem performed some wingovers for Thuy and also showed her the local scenery, Be'ér Sheva and the vast desert hills in the surrounding area. Then in true gliding fashion, the lift cycled, the sky went blue, and everything that was aloft locally landed within minutes, mixed in with some of the powered traffic that shared the strip with the club.

The last sailplane down was their venerable K7. There's nothing quite like the sound of a tail skid being eaten by asphalt and then amplified by the fabric fuselage except maybe hauling a Grumman canoe over many, many rocks.

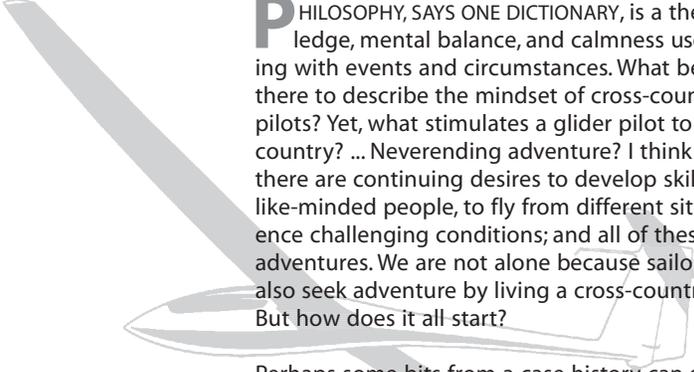
We had a bit of time to wander around and photograph the Spitfire shelters, talk with the club members, and just enjoy the scene. Raeli, Amnon, Yehuda, Avinoam and Menachem all provided us with helpful hints and driving routes to get to our following destinations. The longest drive would be from the Dead Sea up to the Sea of Galilee, about five hours drive. The Galilee is home to the Megiddo Gliding Club, a popular goal for the Negev club members who fly cross-county. The distance is only 150 kilometres but it requires delicate navigating around the Ben Gurion International Airport air traffic control zone as well as the West Bank, which must be overflown by at least 6000 feet above ground. Thermals often take one to 8000 feet and on the rare occasions up over 10,000 feet. While the national gliding association does not use the FAI badge system yet, the Negev club is very proud of one of its members, Rafi Luski, who competed in a recent World Gliding Championships. We're looking forward to seeing more of their accomplishments on the international scene in the near future.

With a few group photos and a multitude of handshakes Thuy and I parted for Be'ér Sheva. That afternoon we passed out in the hotel room and were awakened by the concierge bearing a tray of dried fruit and free champagne for the honeymooners, a gift from the hotel. It was the second in a long line of free bottles that inebriated us over the course of two weeks. We awoke early the next morning and drove to Hatzetim Air Force Base to enjoy the IAF museum up close. I had only researched it on the internet and the photos definitely did not do the site justice. There are planes there from year one, as previously mentioned, when the IAF was little more than a gliding club auto-towing on a beach. The first planes of the IAF were not the better-known Spitfires but rather an underpowered Czech version of the Me-109, the Avia S199. There are also P-51's, Harvards, Mirage jets, Phantom, Kfirs, A-4, and a recently retired F-15 with four enemy roundels painted below the cockpit. All aircraft had seen active duty, and a rich history was provided on a plaque alongside each plane. For the aviation enthusiast, this museum is a must. Take lots of water though, there is little shade other than under the eucalyptus trees in the anti-aircraft static displays that we had to share with the local lizards.

I have kept in touch with a few of the club members since our return. Only after asking Amnon if there were many ex-IAF pilots in the club did I learn that Raeli was the only IAF pilot, and Amnon himself a retired Brigadier-General. His gentle and very humorous demeanor belied what one would expect of a typical military ⇒ p17

Living a cross-country philosophy

Charles Yeates, Bluenose Soaring



PHILOSOPHY, SAYS ONE DICTIONARY, is a theory of knowledge, mental balance, and calmness used when dealing with events and circumstances. What better way is there to describe the mindset of cross-country soaring pilots? Yet, what stimulates a glider pilot to go cross-country? ... Neverending adventure? I think so. For many there are continuing desires to develop skills, to meet like-minded people, to fly from different sites, to experience challenging conditions; and all of these generate adventures. We are not alone because sailors and skiers also seek adventure by living a cross-country philosophy. But how does it all start?

Perhaps some bits from a case history can shed light. For me it began with the wonder of watching box kites flying from a Kansas City park in 1930, later seeing the movie *Dawn Patrol* and hearing news reports about the Battle of Britain, building model airplanes and watching birds soar the ridge alongside grandfather's farm in Kentucky.

Too young to join the Air Force during WW2, the intense urge to become a pilot continued until an opportunity for satisfaction arrived in the summer of 1945. The Brantford Flying Club was restarted by Tom Senior by bringing home two crated Tiger Moths — bought from War Assets for five hundred dollars each. A few of us helped with assembly and rigging, so Tom taught us to fly. I soloed a Tiger Moth after 6-1/2 hours dual at a total cost of \$39 (pre-inflation, eh?) and a vision of adventure was born.

Three years and twenty-seven P1 hours later, an instructor guided me on a dual cross-country to Barker airfield, now absorbed by Toronto's sprawl, for a pilot licence test. Strangely in those times, you went to the Department of Transport Examiner and he stayed on the ground while you flew solo through a prescribed routine and down to a spot landing. Because the J3 Cub had no wheel brakes and I was overshooting the spot, I landed in long grass beside the runway and the extra drag stopped us in time — no wonder the examiner stayed on the ground. That finger-on-map cross-country was an exciting first.

Power flying continued but a focus on gliding began in 1951 when Roy Byrne, Russ Norman and I reconditioned a Kirby Cadet that had been built, flown, and put aside by Air Cadets in St. Catharines as solo training slides had lost their appeal. We car-towed for a season and then Chem LeCheminant agreed that the Cadet could be air-towed largely because its V_{ne} was higher than the stalling speed of the Tiger Moth towplane. More adventure? — you bet — the plywood sides of the Cadet vibrated almost as much as my knees during the first launch. The open cockpit added to the exposed feeling. Because the diminutive Cadet seemed to have no potential for cross-country flying, we switched to a two-seater Schweizer TG-3 that we affectionately named "The Bomber". Now that *did* go cross-country.

Cloud flying by gliders was legal in the United States and Canada in the fifties. When our Nationals were held at the Kitchener-Waterloo airfield, a chance came to repeat the flight to Barker airfield, this time in The Bomber. The combination of a very stable glider and my having little relevant experience but lots of unjustified self-confidence led to climbing in a large cumulus using needle, ball and airspeed. From entry all went well but drifting out the side of the cloud at 8400 feet into brilliant sunshine caused my bum and my eyes to disagree on what was happening. The vertigo was unsettling but soon gone. A second cumulus climb was okay and it gave enough height to reach Barker. Russ arrived later in the Fleet Finch and the sixty-mile return to K-W was accomplished just before dark.

Ownership syndicates formed, shimmered, and morphed as pilots sought time in higher performance ships. In 1955 Jack Ames, Gordon Oates and I purchased a 1-23. Later Wolf Mix replaced Gordon who decided to buy a Slingsby Skylark for himself — a big move. The light and easily-handled 1-23 really stimulated cross-country flying. Logs refer to more nibbling at cloud flying, too. One note reads, "spiral dive out of cloud"; foolish? — you bet. This preceded competing in the US Nationals in August of 1956. This event, held at Grand Prairie, Texas, was blessed with phenomenally good flying weather. Ten adventurous days of soaring earned Canadian Gold C #3 plus two Diamonds and set Canadian O&R, straight distance, and 100 kilometre triangle speed records.

The cloud climb there to Gold height remains a sharp memory. Mindful of lack of experience and the risk of a spiral dive but determined to try for Gold height, I decided not to thermal in cloud. Rather, I straightened at cloudbase and rode upward until bursting out the side of the cloud. A quick 180 started another successful pass and the cycle was repeated until reaching 11,200 feet. Unsophisticated, but it worked. One unanticipated incident occurred during the same contest on the last leg of a triangle flight. A USAF base lay near our course; relaxing with final glide in hand, I noticed ahead and well below a loaded ten-engined B36 that was climbing hard after takeoff. Six pusher reciprocating engines and two jets on each wing made a spectacular picture. It climbed away moving from left to right and I thought no more about it. A couple of minutes later an invisible wingtip vortex left by the heavy bomber flipped the 1-23 almost inverted and only instinctive reactions recovered it back to level flight. Thank goodness it was a strong glider. Amazed and shaken, there was still enough height to reach home.

Such early adventures aimed me along a path toward flying whenever and wherever possible. Soaring competitions were used to sharpen techniques. Overseas sites have included Poland, Czechoslovakia, England, ⇨ p12

Brave new world

Ian Cameron, SOSA

Ian does a Bronze badge practice landout

THE ROPE COMES TIGHT — watch the crosswind, easy now, don't fly back onto the ground (man, these glass ships are twitchy!) and we're away. My excitement rises with me as we circle in the Puchacz up over SOSA's huge airfield, on our way to my first off-field landing. Showing me the ropes is the unflappable Pat Templeton in the back seat, and leading the way upwards is the towpilot, Doug Scott.

My thoughts turn back to this morning's training session, where Dave Springford shattered my peaceful world of easy home field soaring with a morning explanation of the issues of cross-country flying. Up until about 9 am, soaring seemed to have enough challenges trying to core thermals and fly perfect circuits. Was I ever mistaken — there's a whole world of things out there to go wrong I hadn't even thought of. Other landing places are at different elevations? ... So how do you know how high to fly, and whether you can make it, and what the winds are at your altitude, and how do you read a map while flying and, worst of all, how do you take a whiz?

Dave patiently explains each of the issues, and instills in our group of Bronze badge wannabes the rudiments of cross-country skills, at least enough to get us 10–15 kilometres north to an old cropduster strip.

One of the tricky bits today is the stiff wind blowing at an angle to runway 18, and the reportedly higher winds aloft. There were several discussions with my instructor, the towpilot, and anyone else who would listen as I go through the steps of calculating the release height required to make it without depending on thermals. To my surprise, I hear several different answers. I go with my own which is, conveniently, the highest number. Well, we're almost up to that altitude; but wait, there is some, um, discussion on the radio between Dave and Doug about just where the release point should be. Apparently Dave doesn't think it should be a third of the way to the landing site (*damn!*), so we circle back for a release directly over the field.

This is not the first time I've had this experience with this particular towpilot. Not three weeks before I had been towed a fair distance from the club rather than the normal pattern of circling ever higher. The key differences that time were that I was in a 1-26, and we went downwind. If you've never flown a 1-26 or if you don't even know what one is, know this — don't get downwind. However, the excitement of making it back to the field that day paled with the task now set before me — fly in a straight line to, get this, land somewhere else! What a great concept, I really can go wherever I want. I smile happily to myself — an invisible mental barrier has just been smashed, and I'm feeling on top of the world.

From the release point, I can just make out through the

thick haze the lake beside which the airstrip should be. Little did I know that, later on, I would be in a position to see the lake very, very well. Ah, there it is.

Hmm, is it going up the windshield or down? Oh my!, am I ever high. Must be that the winds aren't as strong as I factored into my calculations. Or at least that's what I tell myself. Pat is reminding me from the back seat that I should have landmarks picked out and minimum altitudes to verify. He gracefully keeps the wings level as I turn to my map, freshly purchased that morning, and try to find the railway line I had picked out. Okay, there it is on the map, now where is it out there? Hmm, lots of lines down there; road, road, fields galore, river, road — got it. How could I not have seen that right away? So obvious once you've seen it. (*Who can resist commenting on this intro to "IFR" flying — I Follow Roads, Rivers, Railways.*)

Since I have an extra 1500 feet to burn off, I reconnoitre this new landing place, carefully looking for nearby power lines, poles, tall trees, and any other obstacles. I do this with the fervor of one who is imagining what it would be like without the safety blanket of knowing it's an actual runway, and that a very competent pilot is close at hand (*that's you, Pat*). I also look for something to try and give some scale to it. Dave warned us that all fields are not as comfortably huge as SOSA's, and to avoid the trap of flying the circuit with respect to the landing field, as opposed to the landing point.

So I stay what seems like an enormous distance wide of the strip on downwind, noting the significant crosswind. As I turn onto base, it becomes clear I'm not as wide as I should be. A little spoiler (which is magnificently more effective than the 1-26's), turn for final ... Wow, look at the width of that runway! ... you could easily fit two, maybe even three skinny people between each wing and the trees running down the sides. We go for a long float and run-out, reducing the distance we'll have to push to clear the way of the second student, arriving shortly.

We spend a few minutes listening to the owner of the strip, Ken Chute, and towpilot Doug exchange war stories about the Pawnee we are using. (*Why do pilots always talk about when things went wrong?*) The question comes up about the hill at the end of the runway. The retired cropduster says if he sometimes can't make it over the hill on takeoff, he just bails right and heads out over the lake, going between the house and the hangar, and trying not to hit the wife's clothesline. This gets me to wondering if anyone has ever tried taking off from this field with a not-so-light-on-her-toes Puchacz. It turns out that we will be the first. Right.

After a long (but not nearly long enough) push back to the beginning of the strip, we are again ready for take-off. The roll goes well, and the towplane finally → p16

One short ...

from page 7

and I was about to pay for it. Even at this wonderful height I would be on the ground in five minutes at this descent rate. That's when I realized that the radio was pretty quiet too. Suddenly I felt a little lonely and a long way from the familiar surroundings of SOSA. I considered turning back and heading for Tocumwal to save the day or at least get closer to civilization and then saw a dust devil forming just 10 km ahead. A few minutes later I was down to 4600, still in sink and wondering if this was a good idea. It was. The dust devil produced 10 knots straight to 7000 feet and a cu was forming right over the turnpoint at Morundah, 20 km north. I made Morundah at 5000 feet. I stayed there circling over the town in bits of weak lift until I was back up to 7500 agl before turning south for the 117 kilometre run home.

Ten km south of Morundah the altimeter showed 11,000 and my map indicated 107 km to the finish line. I would be home before the bar opened. Thirty kilometres later 10 knot sink changed my perspective, but at least I was heading home. Strong sink means strong lift is nearby and soon my "get home" thermal appeared 72 km out from Tocumwal. This boomer indicated 9.8 knots on the averager and carried the Duo to 12,000 feet and well above final glide home. What could possibly go wrong?

I slowly let my speed build up and before long familiar landmarks were moving by at 140 knots groundspeed. In about 30 minutes Tocumwal airport was in sight. I radioed in to let them know I was on my way home and to check the active runway. The wind had shifted west by 90 degrees, so landing would be on runway 27 into the sun. I burned off altitude north of the field and after shaking myself to get into landing mode, dropped the gear and flew the circuit to a picture perfect landing on runway 27. What a relief. Ingo appeared to see how the flight went and asked why I had not flown over the field to the south to finish my task?

I suddenly felt the worst sink of the day. Unfortunately I had forgotten about crossing into the FAI finish sector on the finish turnpoint. I had burned off 3000 feet of altitude just a mile north of the field and the finish sector was to the south. Had I just blown an otherwise spectacular set of badge flights? Fortunately, the detailed flight record showed that I had just entered the sector before landing and the flight was metres within limits.

The distance was 501.1 kilometres and with an average speed of 97 km/h and an average thermal climb of 5.8 knots. Flight time was about 5:50 hours and time on course was 5:11 hours. *SeeYou* provided lots of statistics including turn stats indicating that I climbed 20% better turning right than left. Must be an Australian thing because I climb better to the left in the Northern Hemisphere. The actual distance flown was 514 kilometres so I had paid attention to Ingo's "go straight" rule and had managed to centre thermals on the first turn about 68% of the time, so some of his tips had sunk in.

The crew at Tocumwal took my flight recorder, had it calibrated, assisted with the paperwork and filed it with the Australian Gliding Federation. Initially everyone there protested that I could not claim seven badge legs on one flight, but after reviewing the Sporting Code with them we could not find any reason why not. After some delays in international processing and lots of help from Walter Weir and the staff at Sportavia, I now have my C, Silver and Gold badges plus two Diamonds. Only the Diamond height and of course the 1000 km Diploma to go!

Many thanks to Dave Springford, Spencer Robinson and Tracie Wark for helping set the goals and Walter Weir for getting the results processed. The crew at Tocumwal (Ingo, Ritz, and Peter) were very helpful and went to bat for me with the AGF to get everything approved. The actual flight cost \$635: tow \$50, glider rental \$550, and claim processing \$35 but, like the MasterCard ads, "the smile — priceless". ❖

living a XC philosophy

from page 10

Argentina, New Zealand, and Australia; some several times. Australia was the site of a grand adventure and our shortest, most exciting O&R flight — about six kilometres. In 1987, John and Marguerite Chesborough made Kris and me a special deal. We were offered their Mooney at an attractive dry lease rate for five weeks of touring OZ. Like gypsies, we flew coast to coast and return, east from Perth across the Great Western Desert to Uluru (Ayers Rock), Alice Springs and beyond to Hamilton Island on the east coast, within reach of the Great Barrier Reef. Each leg was a new adventure. Kingaroy, Brisbane, Sydney, and Albury Woodonga were early stops on the return trip.

We took off from Albury Woodonga, on the NSW/Victoria border, heading for a week of soaring at Tocumwal. Taking a right turn out, we were at just at 1100 feet when an exhaust valve stem broke. The ensuing violent shaking emphasized that the situation was serious. Things got busy while bits from years of cross-country experience came to bear: called the tower to announce an engine problem, made a right turn onto a short downwind, lowered the landing gear, switched off fuel and electri-

cal switches. The propeller stopped and we glided onto final, landing on the runway with enough speed to take a taxiway to the apron in front of the small terminal. It was kind of like a boat under sail easing into its slip using the wind alone — not often done. That event generated our favourite saying, "You gotta get lucky once in a while".

More recently, last February, there was an opportunity to fly a well-equipped Discus out of Omarama amidst the Southern Alps of New Zealand on a wet wave day. After two hours of cavorting amongst cloudscapes without thermalling, I moved along the Two Thumbs Range toward Mount Cook. Then came the moment when the silence seemed overpowering; movement seemed to have been suspended and into sharp focus came an awesome view down a brilliantly sunlit cloud canyon to the cobalt blue water of Lake Tekapo 22,000 feet below. That magnificent sight is a permanent memory.

A multitude of books, PowerPoint presentations, and soaring camps describe how to increase skills and fly cross-country but not whyone should. The answer to that question is always a personal one. Hopefully the few reminiscences here will tempt you to con- ➔ **next page**

clude that flying beyond the easy glide home can produce feelings that seem the result of pure magic.

Now back to another beginning. Yves Bastien, our new SAC Vice-President, is at the start of his cross-country adventures. He telephoned in early June to tell me he had successfully made his first unintended outlanding just across the river from the MSC airfield at Hawksbury. His voice projected palpable excitement and pride of accomplishment. On a local soaring flight in weakish conditions north of the Ottawa River, he headed toward home and saw that there was only town, trees, and the river between his location and the airfield. Using conservative judgement, he concluded that his final glide might not be a sure thing. This left him lots of time to examine fields below, carefully choose one, plan a circuit, and then land without incident. His steady push for training, experience and a desire for safety stood him well.

Previously Yves had progressed from solo to local soaring and through the MSC cross-country preparation steps. Then a NATO trip as captain of a Canadian Navy frigate

took Yves to Belgium and other Baltic ports where he found time to visit local gliding clubs. A ship tour and reception aboard were traded for a chance to fly the prototype PW-6 and a PW-5 near Gdynia, Poland — an astute move. Last year he flew his Silver C distance to Cornwall. All of this prepared him for his first unintended landout. It seems apparent that an interest in adventurous flying has been clearly demonstrated. Long may it continue.



Yves Bastien – not quite in Hawksbury.

Many pilots earn a glider pilot licence and soar locally for entertainment but these are only the very early steps toward enjoying the wonder and developing an artistry for soaring. The joy of life is in the journey. Cross-country flying is a key which opens the door to a never-ending world of adventure, new friendships, growing skills, and downright fun. Consider developing and living your own cross-country philosophy. Enjoy stretching the boundaries of your skills. Do join us. ❖

getting ready to fly the Ridge

from page 6

matter how well I would do in theory, nothing would compare to the flying itself!

I arrived on 11 April 2003. It was raining. Met Tom Knauff, did some paperwork, and went for a drive along the Ridge to get an idea of what it was like. Unfortunately, there was not much to see because of the fog on the mountain top. Nevertheless, one of the first things that caught my attention were a few communication towers in the area. Some of them were directly on the ridgetop about 8 km southwest and 4 km northeast of Ridge Soaring, but there are many more. They are probably about 200 feet high. I also took a look at the fields in the surrounding area. At that time of year nothing is being grown, so those that are large enough are good for emergency landings providing you don't dig into the wet ground.

I flew seven out of the eight days I was there, and I learned a lot. To summarize I could say that I was very satisfied to have gone and experimented this all new way of flying which cannot be compared to anything else. This is a wonderful area to fly in. Whether you fly thermals or the Ridge, in both cases you will enjoy yourself. If you are there for the thermals you will frequently have variors with +10 knots, which will get you very high. This will enable you to know the area and observe all the landmarks. If you try ridge soaring, which I timidly started to do in a very progressive manner, you will experiment exhilarating sensations and very high speeds in a straight line for long periods of time that you will rarely see anywhere else — not to mention the turbulence that may shake you out of your seat.

My ultimate suggestion is: get prepared and go there, you will learn a lot.

This is what I accomplished as a relative Ridge beginner:

- Did my highest flight – 10,000 feet
- Did my longest flight – 480 km
- Did my longest flight duration – 7:37 hours
- Got my highest average duration per flight
- Got the most flyable days in a row – 7 out of 8
- Flew the most hours in the shortest number of days
- Experienced the strongest thermals – over 10 knots
- For the first time I flew thermal, wave and ridge on the same day.

For the full story, photos, and maps described in this story, go to my website <www.rdg.8m.com>. The goal of this site is to help the newcomer to have access to a lot of information on the Ridge prior to their arrival. It took me a long time to get the right information and it dramatically accelerated my learning curve at the Ridge. This is the kind of site I would have liked to have seen prior to flying at the Ridge. I did the same thing, with the same goal, for St. Auban at <www.stauban.8m.com>.

The map site is <www.mapmart.com>. It is big and there is a lot of information available there as well as all sorts of maps. I used many of their maps and aerial photos for my site with their permission and I downloaded about 150 different ones. There isn't a single map link but rather a site (Mapmart) that you will have to surf to get the map you want. I got my maps by going on the "Historic imagery" icon at the right of the main mapmart screen. This will open an image of the USA then you click on the state and you zoom in and use the type of display you want — DEM, topo, satellite, aerial etc. ❖

Simulated cross-country

soaring training with a power plane

Ian Sutcliffe, SOSA

THE ANTICIPATION of one's first cross-country soaring flight is always traumatic. Will I make it? Will I need to land out? If so, will I find a good field? Will I be able to find my way? What if I get lost? Where is the windsock at the destination airfield? What do I say on the radio as I pass airports? And the favourite — how do I pee?

There are lots more questions — and getting answers from experienced pilots who do 300 km flights like you fly circuits is not always helpful. "What if I have to land out?" "Don't worry — southern Ontario is one big airport — there are lots of fields to land in." This, coming from an expert with 1000 gliding hours and a 45:1 glide ratio aircraft, oversimplifies the task and doesn't diminish the worries.

The SAC Flight Training & Safety committee has been promoting Bronze badge flying for the last two years. SOSA is one of several clubs that has taken heed and

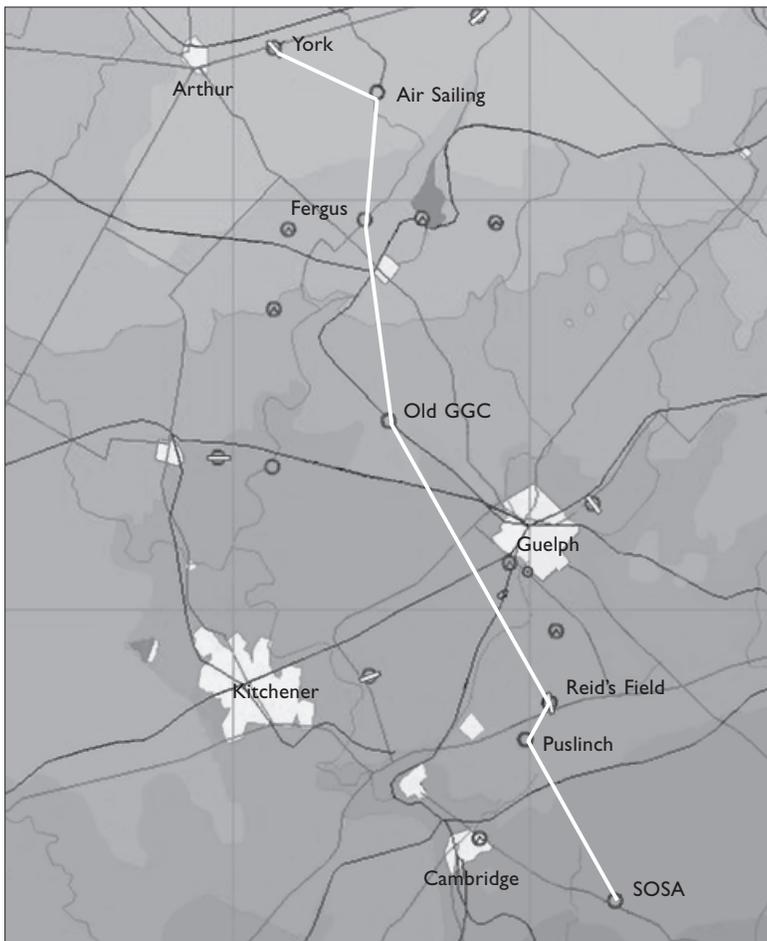
actively promotes the Bronze badge. In addition, the club has been running cross-country training programs with actual off-field landings and 10 km final glides back to SOSA. As the next step we conduct soaring simulations in a power plane and actually fly a 50 km badge task from SOSA to York Soaring at Arthur. The simulation is designed to be realistic: find a thermal off tow, climb up to a good departure height, navigate to the first checkpoint, find thermals, encounter sink, find another thermal, calculate gliding range, and keep going. A 20:1 inter-thermal glide performance was used and 'students' had to navigate along the way.

The sessions started with pilots preparing a map of the route, identifying intermediate checkpoints, drawing glide distance circles, and a cross-country briefing at the airport. We used a high-wing Cessna 170 so visibility forward and down was good. Each flight had two students with the idea of switching places at the end for the return flight.

Once "off tow" and in a thermal, students were asked how high they wanted to be before heading off on course. They had to determine direction and flight path to optimize lift. Most had not thought about how much height they wanted before leaving the local area but the consensus was about 4000 feet. "Practical concepts like finding a thermal and climbing at the enroute edge of gliding distance home were helpful," says Martin Brassard, a 100-hour pilot yearning to travel cross country. "Since the simulated flight I'm considerably more confident about my 50K. I now have a fewer things to worry about since I now know how to pick a field and I also know a route where there are many airports along the way."

Once on course students would provide navigation for the pilot and the Cessna was set up in a 250 ft/min descent until a thermal was found. In-flight calculations of gliding range and estimated height loss to certain landmarks were taxing in the air and reinforced the need to prepare well before the flight. "I hadn't considered the fact that the terrain was rising going north and found it hard to keep track of actual height above ground as we progressed along the route," says Jamie Pinto, an experienced helicopter pilot and proud new owner of a PW-5. "I will need to do more preparation before my first attempt at 50K."

Crossing the 401 at 3000 feet removed the option of gliding home and students had to identify two private airfields as potential landing sites if lift was not to be found. Once a thermal was found we climbed away in slowly deteriorating lift. Students had to determine at



what point they would abandon the thermal and head out on course.

Navigating “Heavy Metal Alley” between the Guelph and Waterloo airports was the next challenge, as was determining how to cross the breadth of the city of Guelph. A thermal just south of Guelph provided lift back to 4500 feet and a clear glide to the north. The next checkpoint was the old Guelph Gliding Club strip north of Guelph. Unfortunately, no lift was found north of Guelph, and once below 2000 feet, it was time to pick out a potential place to land. After identifying a couple of potential fields we flew a circuit and approach. Students quickly realized that those thin lines across fields at 2000 feet were actually big ditches at ground level. Jamie commented that most of his 300 hours of helicopter time has been spent between 500 and 1000 feet agl. So he was surprised to look at a field from 2000 feet or more and think that it could be okay for landing, only to find out at 500 feet how uneven and obstructed it was. Learning to make better judgement about the suitability of fields for land-out was the best experience he said he got from the flight. According to Training committee chairman, Ian Oldaker, “This training builds on the local field selection exercises and circuit planning that we do even as part of basic training.”

Those small undulations turned out to be significant hills and some were surprised to see power lines once they got closer to the ground. Climbing back up in a thermal, students were already picking better fields. “Reading about field selection in a textbook is very different from picking fields in real life,” says Phil Watson, an experienced instructor who is looking forward to completing his 50. “Slopes, power lines, crops, and wind direction are all more difficult than I thought. Seeing the field from the sky and being immediately able to check it out at ground level was a great experience.”

The next checkpoint was the old GGC field and students had a hard time finding it even from five miles to the south. Of course, once they saw it they noted how they found it so they could pick it out again on their actual flight. From there it was an eleven kilometre hop north-east to the Fergus airport. “Fergus was hard to find at first, but once you know to line up the Belwood Dam with a line running north from the east edge of Fergus city, it’s easy to spot,” said Roger Leavens.

After getting low near Fergus we found a thermal and started looking for the Air Sailing Gliding Club just nine kilometres north. Once near Air Sailing, finding York Soaring was easy — the pilots just followed the concession road five kilometres to the northwest and the large field with four runways and two large hangars was easy to spot. Now it was just a final glide. It took the students a second or two to determine which runway to use and what pattern to fly, but soon all was sorted out and we made the field with 400 feet over circuit height.

The flight back was spent relocating the fields and landmarks we used going north, selecting potential fields and doing practice low approaches. It only took two or three attempts before the students became pretty adept at picking good safe fields with no, or at least identified, obstructions.

The program at SOSA is compatible with the SAC training methodology. Ian Oldaker says any instructor who has been on a recent SAC course can teach these field selection exercises and he also advocates going by car to visit chosen fields and to discuss the choice then and there with the students!

To finish the session we did a twelve kilometre final glide from abeam Ken Chute’s field into SOSA. Leaving Chute’s at 4500 feet with a target altitude at SOSA of 2000 feet (800 airfield elevation plus 1000 feet for circuit height and 200 feet for safety) we had 2500 feet to do this final glide. It turned out to be plenty and we arrived at SOSA with 200 feet to spare.

The simulation soaring flight demonstrates several things. One is the mental math required to make decisions as you proceed through changing terrain. Another was the ability to pick out landmarks and potential landing fields along the way. A third was the recognition that this big leap of soaring fifty or more kilometres is just a series of small steps — find a thermal, climb, glide, repeat. Most participants came away realizing that the Silver distance task is not that hard and not that risky. With a little preparation and reasonable soaring conditions, anyone can do fifty kilometres. Of course, if you can do 50, you can do 300, but that’s another story.

“Cross-country flights, under power simulating a glider, are a very good addition to the basic SAC training programs and will help immeasurably to increase a pilot’s awareness of the need to plan early and to give him or her the added confidence to complete cross-country flights successfully”, concludes Ian Oldaker.

Clubs are encouraged to consider this training approach. If one of your members has access to a plane and is willing to spend a day with aspiring cross-country pilots, this is a tremendous way to build confidence and introduce pilots to the thrill of leaving the home field. ❖

Ian Sutcliffe learned to fly gliders in the UK in 1983 and currently flies an LS8-18 based at the SOSA Gliding Club at Rockton, Ontario. Ian learned to fly power in 1985 and flies a 1952 Cessna 170, based at Buttonville, Ontario. He began cross-country soaring in 2000.



Two of the participants, Phil Watson (l) and Mark Ilgauds (r) with the “glider” used for the cross-country training.

... more stalling?

from page 4

In your demonstration, therefore, the recovery and simultaneous description of what you are doing to make the recovery should be started as soon as the glider actually begins to pitch the nose down on its own.

• Stall recovery sequence

The stall recovery sequence is to lower the nose, then check the ASI, look ahead at the horizon, and then return to the normal gliding attitude. As gliders are far more pitch sensitive than typical power planes, this action can produce a fairly violent pitch-down with a noticeable reduced-g feeling to the pilots. This feeling is accentuated in the front seat of a modern two-seater because the pilot is a good distance ahead of the centre of rotation. Some instructors have preferred to use the words, "reduce the back pressure on the stick". However, this phrase is probably more satisfactory for power planes in which the pilots are closer to the centre of rotation, therefore the pitch change would not induce the strong reduced-g feeling which is to be avoided in gliders. Hence the preferred words refer to the desired motion of the glider.

Reduced-g as a cause of accidents

In the past, some accidents have been attributed to the pilot being sensitive to the reduced-g sensation, and to feeling that the glider remains stalled. The stall recovery command used to be, "stick forward"; but some pilots continued to push forward even though they were diving and at well over the stall speed. Responding to the reduced-g of the pushover, they would still feel stalled and push forward more, making the situation steadily worse. A typical cable break on a winch launch requires a firm reduced-g pushover. A sudden downward gust in a thermal or a downdraft on approach, for example, can produce an exaggerated reduced-g feeling, and such situations have resulted in accidents. Therefore we must train our pilots to recognize when they are stalled and when they are in a reduced-g situation but are still flying above the stall speed. The stall recovery sequence was selected to try and avoid this type of accident to glider pilots.

• Reduced-g and the sensitive pilot

Because some people are sensitive to a reduced-g sensation, stalls to them are particularly upsetting at first. These pilots need to be treated more carefully. Continued exposure to some mild pushovers as described here, will desensitize them and make them less susceptible to the sudden feeling of dropping. An instructor who has been taught this procedure should check the susceptibility of the student to reduced-g sensations before the stall exercise is started.

Do *not* ask your students to follow through during this exercise, but ask them to place their hands on their knees or to hold on to the shoulder straps. Describe what you are doing as you perform the exercise. From the normal gliding attitude, increase speed by lowering the nose to about 15° nose-down (if student reacts adversely to this, stop the exercise). Next, continue the pushover to about 30° nose-down and carefully watch the student's reactions. Pull up into a climb; then pitch the glider down to normal flight as the speed drops. This should allow you to assess adequately the sensitivity of your student. If the student is in any way sensitive to these reduced-g sensations make a notation in the pilot training record book for other instructors to see. Explain that, even under reduced g, the glider is flying; it is not stalled, you can stop the first pushover at any time. Relate the feeling to that of the falling feeling at the stall, which cannot be stopped until the glider has regained speed.

You may use similar maneuvers to desensitize the student on subsequent flights, eventually getting your students to do the maneuvers themselves. Emphasizing the words, "lower the nose", as the stall recovery command should help reduce the probability of a pushover type of accident happening to them in the future.

Teach the stall in stages

To become familiar with the symptoms of the approach to a stall, the aircraft does not need to be stalled! However, there is a need to practise correct stall recoveries so that straight and level flight can be regained with

minimum loss of height. It is very useful to first use slow flying to demonstrate the symptoms of the approach to the stall, and then do a full stall where the nose pitches down. Repeat this for a wing drop at the stall, then perform a stall with the airbrakes open; finally a full mushing stall; and note that the glider is stalled but the nose does not pitch down. Before all these exercises do the CALL check. Clearing S-turns are recommended for doing the search, to make sure the airspace ahead, below, to either side and behind is clear of other aircraft.

• Unaccelerated or 1g stalls

To demonstrate a wings-level stall, start by asking the student to perform the CALL check, and instruct the student to remove the hands and feet off the controls (hands to hold the shoulder straps for example) while you take over control for a first demonstration. Reduce the speed by about 1 kt/sec and get the student to notice the symptoms of the approaching stall as the speed reduces. Sometimes you won't be able to produce a clean stall this slowly; the glider will merely mush along at a high sink rate; notice the variometer. Reducing the speed a bit more rapidly will then produce an actual stall. Speak aloud as you recover by lowering the nose and allowing the glider to regain speed; check the ASI, and then look ahead to get oriented with the horizon again. Gently ease out of the dive to the normal gliding attitude. Note the height lost. Hand over control and follow through as the student tries a stall and recovery. Then repeat for a wing drop at the stall, starting with a demonstration, inducing a wing drop if needed. The student then is to repeat this, with you emphasizing to the student to level the wings only after the airspeed has recovered to above the stall speed.

When students are first learning to do stalls like this, it is unlikely that they will actually read the ASI. However, by teaching them to glance at it they will be learning the sequence; in later flights they can be expected to read it or to notice that the speed is increasing. It is important too, to have them look up so as to be able to recognize their attitude relative to the horizon, and then to recover and to return to the normal gliding attitude.

• **Stalling in a turn** Stalls should also be done while in a turn. Start from a well-coordinated shallow-banked turn. Point out that the glider will have a tendency to overbank; this may lead to use of top aileron to prevent this. Try to keep to a shallow angle of bank, and if the glider overbanks too much, start again from wings level. Before the glider actually stalls, practise regaining the correct attitude and speed in the turn. Then let the glider stall in the turn, and recover quickly.

In these and later flights, continue to practise gentle stalls, and also review and demo the effects of reduced-g by doing a pushover at a speed above the stall speed. Then compare the reduced-g sensations to those of a stall.

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• Stall with airbrakes open

The stall will occur at a higher speed, and the symptoms will include more buffeting, possible also buffeting of the elevator. The student should notice the higher speed and the recovery should of course include closing the brakes.

General comments

• An important point that needs reinforcing several times is that the elevator is ineffective when flying more slowly than normal (it will not raise the nose as expected). If the student has not appreciated this early on, the stall needs to be demonstrated carefully again, making this point.

• The CALL check needs to be done thoroughly and with the intention of searching ahead and below; this is different from searching prior to a turn.

• Students may begin to “recover” before the glider has fully stalled! They may think that the nose high attitude is the stall, be apprehensive, or may be sensitive to reduced-g. Another way that a student may surprise the instructor is to enter a stall and recover in a different way than expected. It may be because you have not made yourself entirely clear about what type of stall entry and recovery you wanted.

• It is important to cover the differences between reduced-g sensations that occur when the glider is pushed over from nose high to nose down (as in a pseudo-stall and recovery), and the falling sensation that occurs at the stall. In the first case the glider may not be fully stalled and is still controllable, in which case you can demonstrate this as the glider is pitching nose down by pulling on the stick to stop the falling feeling. If this is not convincing, try a pushover at higher speed and either rock the wings or stop the pushover momentarily (the elevator is effective!). It should be obvious that the glider is not stalled. In the second case of the stall, the elevator is ineffective and the speed has to be increased before the falling sensation can be stopped.

gliding honeymoon

from page 9

general, but then again, Israel is not your typical country. We’re looking forward to returning to fly with our friends. You can visit them online at our site or theirs:

<www3.sympatico.ca/mike.morgulis> or <www.negevgliding.com>.

Postscript:

5 July was a great soaring day, so I skipped off up to Air Sailing and spent some time getting reacquainted with my old girlfriend, CF-RXN, the Ka6CR. We got up over 4000 feet and then the whole sky just popped with cu, and on my next flight my student and I were up to 6200 feet.

This student flight is a neat epilogue to my story, because the student was Michael Avraham from the Negev Gliding Club. He’s now in Canada on a work contract and was solo back in Israel. He’s taken most of the rust off and with a bit of paperwork will be enjoying the thermals in Southern Ontario solo in the near future. Funny, all it took was us going over there and suddenly the world got just that much smaller. ❖

• Power pilots have been taught to recover from a stall by pushing the stick hard forward. This is likely to catch the glider instructor unawares unless a careful pre-briefing has been given to this pilot. And follow through closely when he or she is doing some first stalls in a glider.

• Panic can sometimes set in with a student pilot when you are demonstrating stalls and recoveries. Stalls that produce a rapid change of attitude or an unusual attitude and sensations can be upsetting to people who have not been adequately desensitized against reduced-g sensations, for example. Their reactions, if they are following through, can be dangerous if they freeze on the controls. This means that the instructor should *never* ask the student to fly the glider or even follow through in a situation that he or she has not experienced first as a demonstration. ❖

brave new world

from page 11

breaks free after an alarming amount of runway has gone by. I attempt to hold the optimal position for rate of climb, eagerly anticipating a view of daylight under the tug...

This comes unexpectedly as Doug “bails right” and heads out over the lake. Now I’m sure some of you are thinking: the glider is lower than the tug, is a fair ways back, and has waaaa longer wings, and he said the strip was tree-lined — so just how high was he? I’m not sure. Riveted as I was by my look down the wing at the leaves and the laundry, all I can say is — high enough.

I later learned that the intrepid Pat T was also anticipating being cut loose by the towplane, and was blithely making contingency plans to land in the lake. CISTR-C-O? That’s not my idea of a terrific “O”. (ed: see *free flight 6/99* for Jock Proudfoot’s tale of the haunted glider that lives at the bottom of this lake.) Now, what was it Dave said about taking a whiz?

This training exercise, geared to prepare a licenced pilot for the rigors and joys of cross-country soaring opened up a whole new world for me, and brought an immediacy, a closeness, to the lies, um, tales I hear around the bar, that wasn’t there before.

I try and imagine what it would be like to do this without ever having practised it, and shudder at the thought. All the mental preparation in the world is not the same as actually doing it. And; this “it” is still only a simulation (albeit a good one). Actually, I’m surprised that it isn’t mandatory — a part of every glider pilot’s curriculum. To study, talk, check-fly, and otherwise dance around the outlanding problem without actually practising it seems a rather cruel, almost Darwinian practice.

I would like to thank Doug, Pat T, and Dave Springford for helping keep me near the top of the food chain, and for giving me a glimpse of real soaring, and a pretty good view of Mrs. Chute’s laundry. ❖

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



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Clio's Wings

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:

White Wings in the Great White North

1 What year was the Soaring Association of Canada founded?

- a. 1934 d. 1944
- b. 1939 e. 1950
- c. 1940

2 After World War II, although Canada tried to get what it could from the German gliding clubs as spoils of war, all we managed to acquire were three Grunau Baby IIs and a Mü-13. The Mü-13 came across the Atlantic strapped to the superstructure of a Canadian destroyer.

TRUE or FALSE?

3 Which of the following primary gliders was manufactured in British Columbia?

- a. Boeing Steel Truss Glider
- b. Cessna CG-2
- c. Mead Rhön Ranger
- d. Northrop
- e. Waco NAZ

4 The first aerotow in Canada took place in Yellowknife, Northwest Territories, in 1940.

TRUE or FALSE?

5 In 1947, the British Gliding Association announced a design competition for a two-place glider. Which of the following gliders designed by Czerwinski was the Canadian entry?

- a. Harbinger d. Salamandra
- b. Loudon e. Sparrow
- c. Robin

6 The founders of the Soaring Association of Canada were from glider clubs all over the country.

TRUE or FALSE?

7 Flying a Grunau Baby in 1947, Ovila "Shorty" Boudreault became Canada's first Silver "C" pilot despite having what malady?

- a. the flu d. an inner ear infection
- b. vertigo e. a cold
- c. airsickness

8 For a while after World War II, *SOARING* magazine was published by both the Soaring Association of Canada and the Soaring Society of America. TRUE or FALSE?

9 Who was Canada's first Gold "C" pilot?



John Mulder

"I'm type checked on the SAAB; we'll have to see about the Jantar!"

"Jam Jar" is now in partnership with Al Sunley, Tom Schollie, Carol Gould, and myself at the Central Alberta club at Innisfail. The picture was taken in Calgary at the Corporate Express Airlines hangar while we were completing the annual and 1000 hour inspections. The SAAB 340A is a twin turboprop, cruises at 275 kts @ 20,000', and has 33 seats. We use the SAAB for scheduled service between Calgary and Fort McMurray twice per day, 6 days/week. I am the General Manager, Line Pilot, and currently Director of Maintenance at Corporate Express. We also have scheduled flights between Calgary and Edmonton.

John Mulder

- a. Jack Ames in an Olympia
- b. Shorty Boudreault in a Grunau Baby
- c. Barrie Jeffery in an Olympia
- d. Al Pow in his LK-10, "Homesick Angel"
- e. Elvie Smith in an Olympia

10 The first Canadian glider pilot licence went to a woman.

TRUE or FALSE?

answers on page 20

What's going on at SOSA??

Like a number of other clubs in southern Ontario, we are not alone in our weather woes. The weather has resulted in a rather soggy field that prevented our bus from getting to our launch area, and has slowed the sign-up of our membership. At one point I called it, "the summer that wouldn't start". Well, we can't change the weather but SOSA is pressing on with its plans and activities. We have many; here goes:

Ian Oldaker is our CFI this year. Sweeping changes have brought about a more structured training program that allows for more predictable times when students can find an instructor. Some instructors have agreed to participate on certain days and we've added specific student evening days on Tuesdays, Thursdays and Fridays. We are seeing positive results from his efforts.

To help us manage the club, we are in the middle of an implementation of a software

package that should help us manage club affairs more efficiently — you know, the dirty work no one really wants to do: flights, financials, duty roster, etc. Also on the horizon is the arrival of our bouncing new Jantar Junior. Some of our existing single ships are being sold for this new one. Before its arrival, and for the rest of the season, Ian Oldaker has graciously rent out his PW-5 at club rates to members. Keeping with the aircraft theme, we have implemented a flat fee rate for our single seat aircraft. Over the years it became evident that they were under-used, so the new flat fee and other rule changes are designed to get these ships in the air and to promote cross-country flying. It appears to be working!

With the philosophy that our club should be a place where everyone would want to come to, good weather or bad, we are organizing more social events and coordinating with other active clubs in our area. The Fergus Flyers RC model club visited, demonstrating their RC gliders (with towing) and we had a BBQ afterwards. We plan to have Swoop Skydiving "drop by" for a visit and coordinated discounts to try each other's sport. Shamelessly copying York Soaring, we will have a flour bombing and spot landing contest this summer (hey — it's a great idea!). The rest of the summer will include our annual "Mud Bowl" fun contest along with birthday and wedding parties.

We've taken on a greater effort at sport promotion. We've set in place smooth flying rules for our intro flying and we're giving out the



This photo was taken at the Maple Flag Open House on 31 May. Maple Flag is the annual six-week long air combat exercise held at 4 Wing Cold Lake, which typically has participants from Canada, USA, Britain, France, Belgium, Germany, Sweden, Singapore and Australia. The open house is an opportunity for the public to take a close look at the participating aircraft and to talk to the pilots and crew. As the resident aviation club at 4 Wing, we displayed two of our aircraft, the I-26 and our Scout, which generated a surprising amount of interest from the people who mostly came to see the grey gas guzzlers. Ours were two of the very few that people were allowed to sit in and get an introduction to how an aircraft works. The CF-18 behind the I-26 is from 416 Tactical Fighter Squadron based at Cold Lake.

Randy Blackwell

promotional video from New Zealand. Talks with an adventure touring outfit have also been initiated because we want group visits.

Our new brochures are about to arrive and with the help of the Hamilton Board of Tourism, we will have them distributed in kiosks around the area for free. We've also exchanged brochures with the African Lion Safari. They get lots of visitors, and since we

often tow right over them, they get asked a lot of questions about us. We were more than happy about the exchange. To maintain friendly neighbourhood relations, we donated an introductory flight towards a silent auction for a local school who's funding had been reduced. Ian Oldaker stepped up to the plate and brought his PW-5 to the school grounds. This was great public relations for us and our gift was the first one to bid past its value. The



The Beverly School auction. SOSA's Phil Watson shows Ian Oldaker's PW-5 to some future pilots.

school was ecstatic and so were we. The kids (young and old) loved it and we may have lured future members.

When we make our plans, we don't think in terms of SOSA-only but to the sport as a whole and clubs across Canada. Further long term plans include an overhaul of our web page to improve interactivity, and more promotional activities on and off season. The weather has shown this will be a tough year for us but we believe some of these things are necessary for all of us to survive in the long run. Come by for a visit, the BBQs are on at the end of the day!

Mike Viechweg

Scouting out a Nats site

The Cu Nim Gliding Club, with the support of the Alberta Soaring Council, has committed to hosting the 2005 Canadian Nationals. One of the reasons to pick this year was the likelihood of garnering a competition hosting grant from the provincial sports authority as part of Alberta's centennial celebrations.

The first job is selecting a location in southern Alberta for the contest. There is some tradeoff between good airspace and good facilities. Claresholm, which hosted the 1980 and 1983 Nationals, has good infrastructure but can suffer from being closely downwind from the mountains and has an turnpoints limited to an eastern semicircle (it is a contender, though). Cu Nim has excellent ground facilities but is under the edge of the Calgary control zone. It can also have local subsidence effects from the Rockies, and its turnpoints are more restricted.

I have been doing some initial scouting for other locations. Vulcan, 90 km southeast of Calgary, is a possibility as it is open and mostly flat, dry prairie farmland offering proven soaring conditions and has no turnpoint restrictions. Thermals are routinely good over the area and often last later than at Cu Nim.

In an initial test of this airport's suitability, Cu Nim moved its operation to Vulcan over the four day Canada Day weekend. The weather was pretty stable and windy so most of the flying was Blanik training, but it was a reasonable first test of the airport's ability to accommodate sailplanes, camping, etc.

Vulcan will go on the list of potential sites — it has very light power traffic and the airport authorities were interested and willing to do the runway work to handle a lot of gliders. Such work is largely additional mowing to widen the SW-NE 2800 foot grass runways and to mow the sides of the 2950 foot N-S paved runway to allow more ground traffic/taxiing. The grass surfaces are generally good but its somewhat limited airfield facilities would need to be improved.

More later.

Tony Burton

49 Maitland Street, Box 1351, Richmond, ON K0A 2Z0
(613) 838-4470, <Lucile@istar.ca>

The following record claims have been approved:

Pilot Tony Burton
Date/Place 19 May 2003, Black Diamond
Record type Triangle distance – Club
FAI Category 3.1.4f
Sailplane type Russia AC4-C, C-GJEC
Speed 482.2 km
Task completed Black Diamond, Cowley, Bassano Dam, return
Previous record Tony Burton, 365.2 km, 26 May 2002

Pilot Tony Burton
Date/Place 19 May 2003, Black Diamond
Record type 400 km triangle speed – Club
FAI Category SAC
Sailplane type Russia AC4-C, C-GJEC
Speed 103.3 km/h
Task completed Black Diamond, Cowley, Bassano Dam, return
Previous record Territorial: not claimed
Citizen: Tracie Wark, 82.2 km/h, 25 Jan 2002

Pilot Tony Burton
Date/Place 20 May 2003, Black Diamond
Record type O & R distance – Club
FAI Category 3.1.4e
Sailplane type Russia AC4-C, C-GJEC
Distance 442.9 km
Task completed Black Diamond, Cardston a/p, return
Previous record Bruce Friesen, 425.8 km, 1 Jun 2002

Pilot Tony Burton
Date/Place 20 May 2003, Black Diamond
Record type Free O & R distance – Open
FAI Category 3.1.4b
Sailplane type Russia AC4-C, C-GJEC
Distance 372.2 km
Task completed Black Diamond, Cardston a/p, return
Previous record Bruce Friesen, 315.4 km, 1 Jun 2002

Pilot Tony Burton
Date/Place 20 May 2003, Black Diamond
Record type Free O & R distance – Club

FAI Category 3.1.4b
Sailplane type Russia AC4-C, C-GJEC
Speed 442.9 km
Task completed Black Diamond, Cardston a/p, return
Previous record Bruce Friesen, 425.8 km, 1 Jun 2002

Pilot Tony Burton
Date/Place 21 May 2003, Black Diamond
Record type 200 km speed triangle – Club
FAI Category SAC
Sailplane type Russia AC4-C, C-GJEC
Speed 99.0 km/h
Task completed Black Diamond, Stavely, Mossleigh, return
Previous record Territorial: not claimed
Citizen: Dave Springford, 95.9 km/h, 24 Jan 02

Clio's Quiz answers:

- d. It was founded in 1944 to forestall the imposition of government regulation on the sport.
- TRUE. The Mü still exists and is part of a private collection in Atlanta, Georgia.
- a. Boeing Aircraft of Canada, located in Vancouver, began the primary as a project for their apprentices. During the Great Depression, Boeing Canada thought that the primary might be financially viable and began to produce them — they were wrong.
- FALSE. The first aerotow in Canada was in 31 July 1930, a circuit around the Lulu Island airport, south of Vancouver, by Hal Wilson flying a Boeing primary and towed behind a Fleet Model 2 biplane.
- a. When Polish ex-patriot Waclaw Czerwinski and Beverley Shennstone, one of the founders of SAC, decided to enter the BGA competition, they came up with the *Harbinger*. What is unusual about this glider is the design of the wing — the spar is behind the rear pilot but the wing planform sweeps backwards from the strut attach position to the root, thus providing the rear pilot with better vision. It also has very effective "dragon teeth" spoilers. It placed fifth in the competition.
- FALSE. They were all from the Gatineau Gliding Club.
- c. It seems that Canada's first Silver "C" pilot, Shorty Boudreault was prone to airsickness and was airsick for the last two hours of his five hour Silver duration leg.



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- 8 TRUE. The co-publishing continued for 20 years.
- 9 c. The Gatineau Gliding Club had declared that in the year 1954, someone from the club would get the country's first Gold "C." In July, it turned out to be Barrie Jeffery, flying the club Olympia for a distance of 315 km from Carp, Ontario to Windsor Mills, Quebec.
- 10 TRUE. Alberta's Evelyn Fletcher claimed that every flight she made was a record attempt and made the first Canadian altitude (4000 feet), duration (51 minutes), and distance (10 miles) records. Making her first application for a licence as well as for her first record in May 1938, she had to wait 20 years before being issued the licence (#1) and before her records were recognized. Her 20 year official record lasted another 10 years.

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: Box 307, Maywood, CA 90270, or at <raulb@earthlink.net>. Visit the VSA web site at <www.vintagesailplane.org>.

Thanks to:

- Bungee, Lloyd M. *Trying Their Wings*, British Columbia Soaring Society, Surrey, British Columbia, 1989.
- Firth, Christine. *Free Flight*, January-February 1995.
- Simons, Martin. *Sailplanes, 1920-1945*, EQIP Werbung & Verlag, Königswinter, Germany, 2001.

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The following badge legs were recorded in the Canadian Soaring Register during the period 8 May to 6 Jul 2003.

DIAMOND BADGE

99 William VanderBurgh York

GOLD BADGE

304 William VanderBurgh York
305 Charles Petersen York
306 Ian Sutcliffe SOSA
307 Orlan Dowdeswell Regina
308 Bryan Swansburg Pemberton
309 Harald Schnetzler Vancouver

SILVER BADGE

963 John Spouse Pemberton
964 Ian Sutcliffe SOSA
965 Orlan Dowdeswell Regina
966 Bryan Swansburg Vancouver
967 Peter Morrison Pemberton

DIAMOND DISTANCE (500 km goal flight)

Patrick Templeton SOSA 602.0 km LS-8/18 Corowa, Australia
Ian Sutcliffe SOSA 501.0 km Duo Discus Tocumwal, Aust.

DIAMOND GOAL (300 km goal flight)

Ian Sutcliffe SOSA 318.7 km Duo Discus Tocumwal, Aust.
Orlan Dowdeswell Regina 303.1 km DG-400 Strawberry Lks, SK
Bryan Swansburg Pemberton 302.5 km Ventus CM Pemberton, BC
Harald Schnetzler Vancouver 308.7 km LS-4 Tocumwal, Aust.

GOLD DISTANCE (300 km flight)

Ian Sutcliffe SOSA 318.7 km Duo Discus Tocumwal, Aust.
Orlan Dowdeswell Regina 303.1 km DG-400 Strawberry Lks, SK
Bryan Swansburg Pemberton 325.9 km Ventus CM Pemberton, BC
Harald Schnetzler Vancouver 308.7 km LS-4 Tocumwal, Aust.

GOLD ALTITUDE (3000 m gain)

Ian Sutcliffe SOSA 3390 m Duo Discus Tocumwal, Aust.

SILVER DISTANCE (50 km distance flight)

John Spouse	Pemberton	50.7 km	L-33	Pemberton, BC
Ian Sutcliffe	SOSA	159.3 km	Duo Discus	Tocumwal, Aust.
Orlan Dowdeswell	Regina	116.8 km	DG-400	Strawberry Lks, SK
Bryan Swansburg	Pemberton	108.9 km	Ventus CM	Pemberton, BC
Peter Morrison	Pemberton	50.4 km	DG-202	Pemberton, BC

SILVER ALTITUDE (1000 m gain)

John Spouse	Pemberton	1130 m	L-33	Pemberton, BC
Ian Sutcliffe	SOSA	3390 m	Duo Discus	Tocumwal, Aust.
Peter Morrison	Pemberton	2280 m	DG-202	Pemberton, BC

SILVER (5 hour flight)

John Spouse	Pemberton	5:15 h	L-33	Pemberton, BC
Ian Sutcliffe	SOSA	5:46 h	Duo Discus	Tocumwal, Aust.
Bryan Swansburg	Pemberton	5:57 h	Ventus CM	Pemberton, BC
Peter Morrison	Pemberton	5:05 h	DG-202	Pemberton, BC

C BADGE (1 hour flight)

2765 John Spouse	Pemberton	5:15 h	L-33	Pemberton, BC
2766 Ian Sutcliffe	SOSA	5:46 h	Duo Discus	Tocumwal, Aust.

In the fall of 2002 we finally exhausted our supply of FAI Certificates which had been used since sometime before 1992 when I started the Badge Chairman's job. The new certificates are larger than the old ones and have a soft cover identical in material and colour to a Canadian passport. They are completely bilingual and now there is a place to record your 1000 km Diploma! The space for the "passport photo" is much larger, 3 x 3.75 inches (7.6 x 9.5 cm) so you can send larger pictures with your application.

If you look at the Diamond Goal distance and Gold distance flight data shown for Bryan Swansburg, it would seem that that they were two different flights, but it was only one. How is that possible with two different distances credited? He flew around three turnpoints with a start well off the middle of one leg. So his Diamond Goal task, which by definition must be a declared triangle or out-and-return course, was the 302.5 km distance around the 3 TPs. The Gold distance course includes the off-axis distance on the start and finish legs, bringing the total to 325.9 km.

Congratulations to Ian Sutcliffe of SOSA who visited Australia last winter and in one flight from Tocumwal on 7 January completed his C, Silver and Gold badges plus his Gold distance, Diamond goal, and Diamond distance. Ian flew solo in a Duo Discus. See his account in this issue.

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	10 for \$39.00 to clubs	
	Processing fee for each FAI application form submitted	\$15.00

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72	SAC BRONZE badge pin (available from your club)	\$ 3.00
74	FAI 'C' badge, cloth, 3" dia.	\$ 6.00
75	FAI SILVER badge, cloth 3" dia.	\$12.00
76	FAI GOLD badge, cloth 3" dia.	\$12.00

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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 (recueil des insignes)
	Frais de services pour chaque formulaire de demande soumis

Disponibles au bureau de l'ACVV

70	Insigne FAI 'A', plaqué d'argent (disponible au club)
71	Insigne FAI 'B', plaqué d'argent (disponible au club)
72	Insigne ACVV badge de BRONZE (disponible au club)
74	Insigne FAI 'C', écusson en tissu, 3" dia.
75	Insigne FAI ARGENT, écusson en tissu, 3" dia.
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cinverson@shaw.ca
www.ssc.soar.sk.ca

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

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

Alberta Zone

ALBERTA SOARING COUNCIL
Tony Burton (403) 625-4563
free-ft@agt.net
Clubs/Cowley info: www.soaring.ab.ca

CENTRAL ALBERTA SOARING CLUB
Innisfail A/P, AB
Brian Davies (403) 318-4577 H
ve6ckc@ccinet.ab.ca

COLD LAKE SOARING CLUB
CFB Cold Lake, AB
Randy Blackwell (780) 594-2171
club: (780) 812-SOAR
caeser@telusplanet.net
www.clsc.homestead.com

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

EDMONTON SOARING CLUB
N of Chipman, AB
John Broomhall (780) 438-3268
www.freenet.edmonton.ab.ca/soar/

GRANDE PRAIRIE SOARING SOCIETY
Beaverlodge A/P, AB
Terry Hatfield (780) 356-3870
www.soaring.ab.ca/free-ft/gpps/home

Pacific Zone

ALBERNI VALLEY SOARING ASSN
Port Alberni A/P, BC
Doug Moore (250) 723-9385
www.island.net/~rambo/

ASTRA
Harry Peters (604) 856-5456
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BULKLEY VALLEY SOARING
Smithers A/P, BC
Leif Jorgensen,
newpro.elec@telus.net

CANADIAN ROCKIES SOARING CLUB
Invermere A/P, BC
Al Spurgeon (250) 342-3332
Mike Glatiotis (403) 282-6121
ews@soartherockies.com

PEMBERTON SOARING
Pemberton A/P, BC
Rudy Rozsypalek (604) 894-5727
www.mountain-inter.net/soaring/

SILVER STAR SOARING ASSN
Vernon A/P, BC
Malcolm Rhodes (250) 547-9507
mrhodes@workshopbc.com

VANCOUVER SOARING ASSN
Hope A/P, BC
David Clair (604) 739-4265 H
club phone: (604) 869-7211
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